Title
Toward an Analytic Sociology: Reconciling Structural and Individualistic Explanations of Social Phenomena via a Theory of Embodied Practice

Author
Polyakov, Michael

Publication Date
2014

Peer reviewed|Thesis/dissertation

Toward an Analytic Sociology: Reconciling Structural and Individualistic Explanations of Social Phenomena via a Theory of Embodied Practice

By

Michael Polyakov

A dissertation submitted in partial satisfaction of the

requirements for the degree of

Doctor of Philosophy in

Political Science

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor Mark Bevir, Chair
Professor Christopher Ansell
Associate Professor Kinch Hoekstra
Professor Neil Fligstein

Fall 2014

Abstract

Toward an Analytic Sociology: Reconciling Structural and Individualistic Explanations of Social Phenomena via a Theory of Embodied Practice

by

Michael Polyakov

Doctor of Philosophy in Political Science

University of California, Berkeley

Professor Mark Bevir, Chair

Social theory explanations commonly take one of two forms. Accounts couched in terms of macroscopic entities such as institutions, culture, class, structure and tradition tend to privilege stability and regularity. Individualistic explanations, on the other hand, take these entities to be ultimately reducible to free actions of individuals and are most adept at explaining transformation and volatility in the social realm. These two forms of explanation are rooted in radically different ontological and normative assumptions, and no attempt to connect them has garnered wide acceptance to date. This dissertation once re-examines the tension between them, which has become known as the "structure vs. agency" debate, by drawing on and extending the insights of "theories of practice", a literature that locates the junction of structure and agency in the routines of ordinary daily activities.

The dissertation begins by critically examining two extant theories of practice. One originates in Pierre Bourdieu, Anthony Giddens, and William Sewell's responses to structuralism; the other is articulated by Theodore Schatzki, who draws on Ludwig Wittgenstein to characterize practice as a semantic lens through which social actors make sense of the world. An alternative theory of practice is then developed, inspired by Charles Taylor's Heideggerian conception of embodied agency. This theory of "embodied practice" advances a novel formulation of the structure-agent relationship. Through a fine-grained analysis of the cognitive and informational processes by which practices project a semantic dimension onto the world, embodied practice theory renders robust forms of personal agency compatible with certain forms of semantic macrostructures. The dissertation goes on to describe how embodied practices can account for both change and stability in society and how the concept of an embodied practice may be profitably employed in applied social analysis and political theory.

Table of Contents

Chapter 1: Introduction

> "In historic events the so-called great men are labels giving names to events, and like labels, they have but the smallest connection with the event itself. Every act of theirs, which appears to them an act of their own free will, is in an historical sense involuntary, and is related to the whole course of history and predestined from eternity." – Leo Tolstoy, *War and Peace*[1]

> "Man is nothing else but that which he makes of himself. That is the first principle of existentialism." – Jean-Paul Sartre, "Existentialism"[2]

I. The Two Dilemmas of Social Theory

The human condition is one of permanent tension between social constraint and individual freedom. Social theory is thus compelled to continuously negotiate a balance between holistic and individualistic explanations across its various domains, most notably in history, sociology, anthropology, and political science. Holistic accounts are couched in terms of macroscopic entities such as institutions, culture, class, and traditions that exist over and above the concrete events in which they manifest. Individualistic explanations, on the other hand, take such macroscopic phenomena to be ultimately fully reducible to actions of individuals and their interpretations.

In surveying the history of sociology in 20th century, Peter Sztompka notes the field swings like a pendulum between these two forms of explanation that entail different ontological, methodological, and normative assumptions.[3] Articulating a plausible theoretical relation between human agency and its structural precursors has been a perennial concern in social theory[4], beginning at least with Talcott Parsons, who explicitly set out to reconcile them in his theory of action.[5] Each of these previous attempts have fallen short of that goal. But in the course of such attempts over the past

---

[1] Leo Tolstoy, Louise and Aylmer Maude, tr., *War and Peace* (Oxford: Oxford University Press, 2010), 650.

[2] Jean-Paul Sartre. "Existentialism" in Stephen Priest, ed., *Jean-Paul Sartre: Basic Writings.* (Routledge, 2002), 29.

[3] Peter Sztompka, "Evolving focus on agency" in Peter Sztompka (ed.), *Agency and Structure: Reorienting Social Theory* (New York: Routledge, 1994): 25-62, 28-30.

[4] Sherry B. Ortner, "Theory in anthropology since the sixties." *Comparative Studies in Society and History* 26.1 (1984): 126-166; Sherry Ortner, "Subjectivity and cultural critique", *Anthropological Theory,* 5 (2005), 31–52; Margaret Archer, *Culture and Agency* (Cambridge: University Press, 1988).

[5] Jeffrey C. Alexander and Bernhard Giesen, "From Reduction to Linkage: The Long view of the Micro-Macro Link" in Jeffrey C. Alexander, ed. *The Micro-Macro Link* (University of California Press: Berkeley, 1987): 1-32. As George Ritzer points out, however, until the 1970s, most of those working in social theory were content to operate at one or another extreme without seeking a compromise position, with notable exceptions such as Parsons (George Ritzer. "Micro-macro linkage in sociological theory: applying a metatheoretical tool" in George Ritzer, ed., *Frontiers of social theory: The new syntheses* (New York: Columbia University Press, 1990): 347-370).

several decades, a promising social ontology has been introduced that is built around the notion of 'practice.' This essay develops and extends the insights of this work in another attempt to meaningfully reconcile individual-level and macro (structural) explanations. It also addresses a related important theoretical tension in social theory that Sztompka identifies, between explanations of change and of continuity. I will return to that question after examining the agency/structure dichotomy more closely.

References to the tension between "agency" and "structure"[6] that are pervasive in social theory actually mask at least three distinct axes of variance among positions; these are illustrated by Table 1 below. One of these axes is of physical scale (sometimes referred to as "micro" vs. "macro" distinction). Another is the point of view with which a given account is primarily concerned: objective or subjective, i.e., who is considered the best source of information, the observer or the informant. The third pertains to the conception of action at play: is it driven by hermeneutic meaning or is it largely a product of responding to external constraints and fixed preferences.[7]

Neopositivist

	Micro	Macro
Subjective	?	Hegel*
Objective	**Methodological Individualism**	**Material Structuralism**

Semantic/Interpretive

	Micro	Macro
Subjective	**Subjectivist Individualism**	Jung*
Objective	Cognitive Science*	**Semantic Structuralism**

Table 1. The label of methodological individualism here is not intended to refer to particular formulations such as that of Karl Popper but rather the entire category of approaches such as rational choice, described below. The Neopositivist/Micro/Subjective cell contains merely a question mark because I am not aware of attempts to conceive and deploy a non-meaningful personal experience.

Together, the three dimensions produce the above matrix of eight possible social theories (at least in Weber's "ideal type" sense). The purpose of setting out these dimensions is not to exhaustively categorize all possible views but to highlight in broad strokes the primary differences between four influential positions in the literature: those that are bolded in the table above and described in more detail below.[8] As the graph makes clear, I believe that the agency/structure split and its cognates usually refer to one of two distinct conceptual dichotomies.[9] The first "neopositivist" dichotomy is between

[6] For example, see Archer, *Culture and Agency*; Laura M. Ahearn, "Language and agency." *Annual review of anthropology* (2001): 109-137; Peter Sztompka, ed., *Agency and Structure: Reorienting Social Theory* (New York: Routledge, 1994); Sewell Jr, William H. "A theory of structure: Duality, agency, and transformation." *American journal of sociology* (1992): 1-29; Ritzer, "Micro-Macro Linkage."

[7] Jeffrey Alexander and Bernhard Giesen draw similar distinctions (Alexander and Giesen, "From Reduction to Linkage).

[8] The entries marked by * are well known authors or schools of thought that approximately reflect those categories. I set these aside as they have been rarely championed in social theory, although I will argue later that objectively identified meanings at the individual level (the cognitive science position) should play a larger role.

[9] That is not to say that other combinations of positions have not engaged each other. For example, Critical Theory's deployment of the inchoate subjectivism of the early Marx in its attack on Althusser may be

frameworks at the macro and microscopic levels that are concerned with objective conditions and constraints of the social world, rather than with symbolic structure or meanings (please note that the qualifier "material" is not meant here in the specific sense associated with Marx; nor is it intended to narrowly mean a concern with material resources; rather it signifies that the structures in question occur in the physical world broadly understood). The challenge facing those who would attempt reconcile this dichotomy is to connect society-level phenomena to the observable actions of individual actors. The second split is between objective, 3rd person accounts of symbolic structures and the view that social phenomena must be understood through the point of view of the social actors on the ground whose actions and interpretations recreate the social order.

External Structure vs. Individual Actors

The first dichotomy can already be discerned in the originating texts of sociology, between the positions of Weber and Durkheim & Marx, as well as within Weber's own work, between his insistence on the importance of individual actors and their intentions and his actual historical work that is framed almost exclusively at the level of society. [10] In the strong organicist version of material structuralism most associated with Durkheim and the later Marx, macroscopic entities are attributed independent existence and are logically prior to the individual. Groups and institutions such as "party," "class," and "state" are treated as analytically irreducible, manifesting in distributions of population and physical resources. Prominent members of this tradition, the rise of which accompanied the wax of Marxist influence in the social sciences, include Louis Althusser, the later Parsons, and Peter Blau in sociology; E. P. Thompson in history; and those carrying out "comparative-historical" analysis in political science, e.g., Theda Skocpol. To the extent individual actors appear at all, they usually do so as interchangeable components in the larger narrative.

However, by the time sociology (and to a lesser degree political science) explicitly took up the issue of micro-macro linkage in the 1980s[11], accounts framed in terms of organic macro entities had mostly given way to structural explanations framed in terms of social "roles" or "positions" within a macro construct ("class," "state," "firm," or "institution"). On this approach, society is broken down into *categories* of individuals,

---

described as manifesting the differences between subjective individualism and material structuralism. There is also a long-standing tension in sociology between material and semantic structuralism, familiar to us as the structure-culture debate, tracing in part to Marx's distinction between the material base and the superstructure of culture and ideology (Vaisey, Stephen. "Structure, culture, and community: The search for belonging in 50 urban communes." *American Sociological Review* 72.6 (2007): 851-873). Finally**,** Karl Popper's critique of the use of the interpretive stance in social science represents the split between methodological and subjective individualisms. My focus here, however, is solely on the facets of the structure-agency duality.

[10] Stephen Kalberg. *Max Weber's comparative-historical sociology*. University of Chicago Press, 1994.

[11] For example, Randall Collins attempted to resolve this by showing how macro-phenomena *emerge* from chains of interactions through a reliance on cultural resources (Collins, Randall. "On the microfoundations of macrosociology." *American journal of sociology* (1981): 984-1014). For a discussion see Jeff Coulter, "Human Practices and the Observability of the 'macro-social'" in Karin Knorr Cetina, Theodore R. Schatzki, and Eike Von Savigny, eds., *The Practice Turn in Contemporary Theory* (London: Routledge, 2001): 37-49.

each defined by "structural parameters."[12] Particularly in the context of studying poverty and similar social ills, "roles" and "positions" cash out either as external constraints on individual actors or as "arrays of opportunities" available to them.[13] While individuals conceptually play a more prominent part, they still are not ascribed any distinctive history, preferences or other unique attributes; all the explanatory work is done by the structural conditions in which they are embedded.

This modern form of material structuralism is common in sociology, anthropology, and organizational theory.[14] Network theoretic accounts in sociology and political science can be classified here, since policy outcomes are explained in terms of relations within complex and fluid networks of actors (typically distributed among multiple levels of governmental bureaucracy and the general population), rather than crediting authoritative actors. The structure of the network dictates the opportunities and constraints actors encounter in accessing information, wealth, and power.[15] What unites all these literatures is a concern with patterns (structures) in the environment or society *external* to the individual actor.

The individual or micro-level side of the first dichotomy explicitly rejects the attribution of ontological reality to 'macro-social' phenomena as an illegitimate objectifications of interactions between individuals. Anthony Giddens, for instance, warns of the "imperialism of the social object," contending that Durkheim went too far in the naturalization of social sciences when he imputed an independent existence to forces governing social life.[16] Methodological individualism is most prominent within economics, particularly among the heirs of the Austrian school.[17] But a variety of social theories in other disciplines also construe society as nothing more than a tapestry of instrumental actions of individuals, and social order as the contingent outcome of those actions. These include Fredrick Barth's transactionalist anthropology; Hamans's exchange theory in sociology; and some forms of new institutionalism, rational choice, and "analytical Marxism" in political science. Furthermore, some have argued that a wide array of research in sociology, such as Weber's work on religion and Albert Hirschman's study of economic development implicitly trades on an individualistic paradigm of society.[18]

I characterize these approaches as "neopositivist" because the objectively specified interests, incentives, and constraints of the "prevailing institutions" effectively determine – in fact, *must* determine for the theoretical engine to continue churning – what

---

[12] This particular epithet is taken from Anthony Giddens, *The Constitution of Society: Introduction of the Theory of Structuration* (University of California Press, 1984), 208.

[13] David Rubinstein. *Culture, structure and agency: Toward a truly multidimensional sociology*. Sage, 2001, ch. 2.

[14] Most notable among these are Talcott Parsons' account of norms as internalization of expectations associated with one's social roles and March and Simon's account of organizations as clusters of routines (James G. March and Herbert Alexander Simon. *Organizations*. (Oxford: Wiley, 1958).

[15] Barry Wellman. "Network analysis: Some basic principles." *Sociological theory* 1.1 (1983): 155-200, 157.

[16] Giddens, *The Constitution of Society*, 2, 172; Anthony Giddens. *New rules of sociological method: A positive critique of interpretative sociologies*. Stanford University Press, 1993 [1976]: ch. 3.

[17] Some of the harshest criticism came from Austrian economists, most notably Hayek in the 1950s. See Lars Udehn, "The changing face of methodological individualism," *Annual Review of Sociology* (2002): 479-507.

[18] Raymond Boudon, "The Individualistic Tradition in Sociology" in Alexander, *The Micro-Macro Link*.

individuals in question do.[19] The actors' own meanings or interpretations, while they may be addressed, are usually absent from the core explanation. In short, the primary difference between the two sides of the first dichotomy is a methodological one of scale or level of explanation. Separating them is the question of whether it is most useful to investigate the system in which individuals are embedded *or* the way individuals operate under its constraints.

The Semantic Dichotomy

Both sides of the second dichotomy agree that social reality has a crucial semantic dimension. However, they disagree about the form of analysis most competent to capture this dimension. The "objectivist" side argues the relevant meanings are best grasped through investigation of "semantic structures" themselves. Unlike the previous duality, where "structure" referred to patterning of material reality, here it refers to the organization of semantic content. Across different disciplines, these semantic structures take various forms: language (or *langue*), tradition, values, and, most notably, culture. I refer to these systems below as "supra-individual" factors because even though they are reflected in the individual (in the sense that an individual possesses a language they command), their explanatory power derives from their being shared by large groups (in most cases entire societies) and because in most accounts these meanings are never fully grasped by the individual. The "interpretivist" side, on the other hand, insists that there is no substitute for engaging subjective experience. It argues that individuals are ontologically, normatively, and epistemically primary, that meanings and purposes of individuals cannot be reduced to supra-individual semantic structures, and that social reality is a product of those individual meanings and purposes. While they acknowledge the structured and shared nature of meaning, theorists in this camp hold the individual actor to be the best arbiter of what she is about.

The second dichotomy can also be interpreted as a macro-micro split, with the structures (e.g., language) understood as the macro, system level, and particular concrete events (e.g., speech acts, decisions) constituting the micro level. But while both sides of the first dichotomy generally subscribe to a deterministic conception of action, both sides of this second dichotomy conceive of action as originating in meanings and purposes of individuals (such action may of course be instrumental and calculating but it is nevertheless oriented within a larger semantic framework). On the other hand, while methodological individualism often refers to "calculating" or "deliberating" agents, the result of that deliberation is pre-ordained rather than a product of consciously entertained meanings.

Both dichotomies have served to define social theory over the past century, but I believe the first is less pressing today. The ontological chasm between organicist structuralism and individualism essentially faded from the literature after the 1970.[20] The remaining micro-macro debate in contemporary sociology (to the extent it lingers on) is a

[19] Tom Burns makes a similar point (Tom Burns, "Two Conceptions of Human Agency: Rational Choice Theory and the Social Theory of Action," in Peter Sztompka, ed., *Agency and Structure: Reorienting Social Theory* (New York: Routledge, 1994): 197-249; see also Colin Hay and Daniel Wincott, "Structure, Agency and Historical Institutionalism" *Political studies* 46.5 (1998): 951-957.
[20] Ritzer, "Micro-Macro Linkage."

question of methods, not principles, to be settled on a case by case basis. The second form of the agency/structure split, however, continues to be a profound tension in social theory and social science. As Pierre Bourdieu put it, "just as objectivism universalizes the theorist's relation to the object of science, so subjectivism universalizes the experience that the subject of theoretical discourse has of himself as a subject."[21] The rest of this section fleshes out this second version of the agency/structure split, which will be the focus of discussion in the rest of the dissertation.

As mentioned above, I mean "semantic structure" to encompass a wide variety of constructs in anthropology, linguistics and political science. These include cognitive structures (systems of concepts), linguistic structures (both syntactic and semantic), as well as belief and symbol systems. All of these can be described as patterns of interactions or relations between individual semantic elements. Most of these also originate from the same source – Saussure's structural linguistics – where meaning comes from the relations between signs, rather than the signs themselves.[22] Thus most structural accounts inherit Saussure's conceptual distinction between language as an autonomous system of signs (*langue*) and its individual uses by language speakers (*parole*). Analysis within these approaches consists in recovering the coherent structure of the system underlying its various instantiations in the real world.

These concepts were introduced into anthropology through the cognitive structuralism of Claude Levi-Strauss, which was particularly influential in the 60's. Levi-Strauss argued that human behavior – and language in particular – is generated by sets of binary contrasts in the subconscious (such as male-female).[23] Levi-Strauss's system of thought recreated the division between Saussure's *langue* and *parole* because he maintained that individuals cannot access the cognitive structures in question, and even if they do, cannot sustain them in mental focus.

While Levi-Strauss's direct influence has waned, Clifford Geertz's symbolic anthropology remains an influential bulwark of semantic structuralism in that field. Like Saussure and Levi-Strauss before him, Geertz studied symbolically-laden public action and associated physical objects as vehicles of meaning and usually bracketed the individual's interpretations of the symbols and variations among them. As Sherry Ortner summarizes, symbolic anthropology, particularly as elaborated by David Schneider, largely assumed cultural schemas to be static, monolithic, and inaccessible to the conscious mind.[24] In such accounts, cultural actors have little insight into the web of cultural concepts in which they operate or opportunity to deviate from them.

In political science, the ascendancy of material structuralism of the 1960s and 70s subsequently gave way to institutionalist approaches.[25] While some forms of institutionalism were framed in terms of incentive structures and constraints imposed on

---

[21] Pierre Bourdieu, *The Logic of Practice*. Stanford University Press, 1990: 45-6.

[22] Specifically, the relation is one of difference: the identity of a given sign is created through its distinction from all other signs.

[23] E.g., Louis Dumont's *Homo hierarchicus: the caste system and its implications*. University of Chicago Press, 1980.

[24] Ortner, "Theory in anthropology", 130; Ortner, "Subjectivity and cultural critique"; Lisa Wedeen. "Conceptualizing culture: Possibilities for political science." *American Political Science Review* 96.04 (2002): 713-728.

[25] Peter A. Hall and Rosemary Taylor. "Political science and the three new institutionalisms." *Political studies* 44.5 (1996): 936-957.

individuals, as described above, others defined an institution as a culture or web of schemes and scripts. Under this "cultural" interpretation, institutions do not so much determine what is organizationally mandated than what is *conceptually* possible. They do so by providing "moral or cognitive templates for interpretation and action."[26] In a typical treatment, Frank Dobbin showed how industrial policy in the 19th century varied across nations based on extant policies in other related domains, as when railroad policies took the same shape as earlier canal and turnpike policies and were later replicated in the polices regulating the electronics industry.[27] "Cultural" institutionalism in political science acknowledges the individuals' capacity for reflexive interpretation. Yet it takes not the agents themselves but the various forms of tacit knowledge and informal patterns of shared beliefs and socialized expectations as the locus of explanation.

My characterization of semantic structuralism is also meant to encompass the range of authors associated with "poststructuralism." Although early poststructuralists were generally not in the business of offering social science explanations, the influence of the approach now extends into core social science areas and thus intrudes into the structure/agency debate. These authors accept the reality of structures in the social world, but contend that these are unstable, contingent, and subject to continuous re-interpretation and contestation. Meaning is still posited to inhere in symbolic systems (texts, discourses, epistemic regimes), but not in the stable and coherent form imagined by Saussure and Levi-Strauss. Poststructuralism can be described as post-humanist, in that it deconstructs social actors as contingent products of discourses and other semantic structures and processes. Indeed, on poststructuralist institutional theory, social actors, existing at the intersection of culture and institutions, need not correspond to natural individuals or even relatively tangible entities like nation states.[28] The subject – including aspects of personal identity (e.g., gender identity) and the powers of critical reason and reflexivity – is a synthesis of responses to the discourses or social performances in which she is enmeshed.[29] There is no prior subject who reflects; the subject is constituted and continuously reshaped in the acts of reflection. This process of autopoesis is where many poststructuralists locate the remains of "agency."[30] The traditional subject, to the extent

---

[26] Ibid, 939.

[27] Frank Dobbin. *Forging industrial policy: The United States, Britain, and France in the railway age*. Cambridge University Press, 1997.

[28] John W. Meyer and Ronald L. Jepperson. "The 'actors' of modern society: The cultural construction of social agency." *Sociological theory* 18.1 (2000): 100-120.

[29] Thus Derrida asserted that "[The] subject, and first of all the conscious and speaking subject, depends upon the system of differences and the movement of difference." (Jacques Derrida, *Positions*, trans. Alan Bass (Chicago: Chicago University Press, 1981), 28). Derrida argues that the subject is in an important sense a result of the speech attributed to him. He writes about the signing of the Declaration of Independence that "the people do *not* exist as an entity, the entity does not exist *before* this declaration, not *as such*. If it gives birth to itself, as free and independent subject, as possible signer, this can hold only in the act of the signature. The signature invents the signer." (Jacques Derrida, *Declarations in Negotiations: Interventions and Interviews 1971 – 2001*, Elizabeth Rottenberg (ed.) (Stanford: Stanford University Press, 2002), 49, partially cited in Bevir, Mark. "Political studies as narrative and science, 1880–2000." *Political Studies* 54.3 (2006): 583-606, 598.

[30] Judith Butler, "For a careful reading" in Seyla Benhabib et al., eds, (Routledge 1995); similarly, Elizabeth Ermath's characterizes a person as a "kinetic subjectivity-in-multicoded-process." (E. D. Ermath, "Agency in the discursive condition," in Gabrielle Spiegel (ed.), *Practicing History* (New York: Routledge, 2005), p. 104).

she is discernable at all, is carried along by the play of discourse, and it is the "text" that is autonomous.

Against these various forms of semantic structuralism, subjectivist individualism argues that the synchronic logic of Saussure and Levi-Strauss makes speakers and cultural actors little more than conduits for – if not prisoners of – the semiotic code. Subjectivity is thus not merely ignored, as it is in Durkheimian macro analysis, but is narrated as a product of structural forces or vagaries of history. Subjective individualists insist the first-person perspective understanding is irreducible to such "objective" description and omitting it dooms social science to radical incompleteness. They push back against semantic structuralism in several distinct ways. One interpretation of the importance of the subjective perspective in sociology and anthropology is discernable in an emphasis on the inherent uncertainty of outcomes of structured action and the *reflexivity* this demands on the part of actors, which may be decomposed into "self-interrogation, self-monitoring, and self-revision," [31] Thus, in his critique of the sociological canon, Anthony Giddens insists that "even the most enduring of habits, or the most unshakeable of social norms, involves continual and detailed reflexive attention… all routines, all the time, are contingent and potentially fragile accomplishments." [32] The idea that a sort of reflexive "internal conversation" accompanies even structure- or habit-based action traces back to American Pragmatists, in particular John Dewey and C.S. Peirce.[33] Yet conceptually integrating reflexivity into routinized activity remains an ongoing effort.

Within sociology, a somewhat different emphasis on the *intentions* of social actors first appears in Max Weber and Georg Simmel's use of Dilthey notion of *Verstehen.* [34] It was also central to Alfred Schütz's social phenomenology, which grounded Weber's 'interpretive sociology' in Husserl. Roughly speaking, *Verstehen* enjoins the social scientist to investigate how the social actor understands his position and the motivation behind his actions.[35] But after Parsons, mainstream sociology by and large retreated from this approach. Symbolic interactionism, which views reality in terms of meanings that arise for individuals out of personal, micro-situational interactions, has been the primary vehicle for the persistence of the subjectivist individualism perspective.[36]

Yet another version of the subjectivist individualism hails from philosophy of action and stresses an individuals' freedom. Famously articulated in its purest form by Jean-Paul Sartre, this view portrays individual creativity as transcending one's circumstances and constraints. A more modern reading would be that we, as language

---

[31] See for example Margaret S. Archer, "Routine, Reflexivity, and Realism." *Sociological Theory* 28.3 (2010): 272-303.

[32] Giddens, *New Rules*, 6. William Sewell makes a similar point (William H. Sewell Jr., *Logics of history: Social theory and social transformation*. University of Chicago Press, 2005, ch. 3).

[33] See especially John Dewey. *Human nature and conduct: An introduction to social psychology* (Carlton house, 1922).

[34] Alexander and Giesen, "From Reduction to Linkage," 17.

[35] For a discussion of *Verstehen* including Weber's use of it see Michael Martin. *Verstehen: The uses of understanding in the social sciences*. Transaction Publishers, 2000; and Peter A. Munch ""Sense" and "Intention" in Max Weber's Theory of Social Action." *Sociological Inquiry* 45.4 (1975): 59-65.

[36] Denzin, Norman K. *Symbolic interactionism and cultural studies: The politics of interpretation* (Oxford: Blackwell, 1992), xiv. See also Robert S. Perinbanayagam, *Signifying acts: Structure and meaning in everyday life* (Carbondale: Southern Illinois University Press, 1985), ch. 2.

users, "possess an ability to devise and to understand new words and new sentences so as to convey and grasp new meanings which lie beyond all established rules [… and] express an infinite range of ideas."[37] Whatever the influence of traditions and customs in shaping our desires and beliefs, our intentions and purposes are our own.

Semantic structuralism argues in response that such views fail to appreciate the preconditions of the subjective experience. In pure subjectivism, such as that of Sartre, each action is antecedent-less; interpretation is chosen *de novo* by an "unencumbered" self. It is thus unable to conceptualize patterns in social reality and must accept them as mysterious externalities.[38] In political philosophy of the 1980s this rejoinder was couched as a critique of deontological liberalism, alleging that it – much like Sartre's existentialism – rests on an implicit interpretation of human agency as atomistic rationality.[39] This impoverished view of agency, critics argued, fails to recognize the crucial role that factors such as moral frameworks, tradition, culture, language, and ties to one's community play in assigning normative force to particular reasons, interests, and preferences.[40] Michael Sandel and Alasdair MacIntyre in particular argued that the rights and preferences defended as neutral and universal by deontological liberals like John Rawls are in fact projections of their own Western cultural heritage.

Toward Synthesis

A variety of attempts have been made to reconcile structure and agency. Writing in 1970, Alan Dawe already noted that the synthesis between "the mechanistic and organismic approaches, between atomism and holism, methodological individualism and collectivism ... [has] been attempted many times."[41] Perhaps the first major theorist who explicitly set out to integrate or connect the two levels of explanation was Talcott Parsons. On Jeffrey Alexander's sympathetic reading, Parsons's goal was to describe the link between situational context and individual action, between subjective and objective views of society, a link he thought he found in the psychological mechanism of internalization.[42] Parsons detailed the connections between various aspects of personality and the structures in the actor's physical and social environment, such as daily movement patterns and transportation infrastructure. These material structures were internalized in the form of sets of behavior patterns – occupational, economic, and social roles. Parsons insisted that the roles an individual occupied did not determine his actions. But his rendering of the internalization process as automatic and devoid of mediating interpretations by the social actor is commonly seen as reducing action to the expression of internalized social imperatives.[43]

---

[37] Mark Bevir, *The Logic of the History of Ideas* (Cambridge: Cambridge University Press, 1999), 52.
[38] Bourdieu, *Logic of Practice*, ch. 2.
[39] Charles Taylor. "Cross-purposes: the liberal–communitarian debate." *Debates in contemporary political philosophy* (1989): 195; Michael J. Sandel, "The procedural republic and the unencumbered self." *Political theory* (1984): 81-96.
[40] As Michael Sandel memorably put it, "to have character is to know that I move in a history I neither summon nor command, which carries consequences none the less for my choices and conduct" (Ibid, 90).
[41] Alan Dawe. "The two sociologies." *British Journal of Sociology* (1970): 207-218, 210.
[42] Alexander and Giesen, "From Reduction to Linkage."
[43] Giddens, *Central Problems in Social Theory*, 101-118.

Another common way to encompass the two poles of the semantic structure/agency dichotomy in anthropology and sociology has been to view human history as conforming to a sort of "punctuated equilibrium."[44] This partitions history into "ordinary time," in which structure has the dominant role in explaining social reality, and occasional, brief "critical periods," where routines and habits no longer provide adequate guidance and reflexivity and conscious reasoning is required. Representative of this approach is Ann Swidler's understanding of history as alternating "settled" and "unsettled times."[45] The former, the dominant condition for most societies, is organized by implicit habitual understanding and routines of tradition. The latter state is characterized by consciously articulated ideology and intentional attempts to alter the status quo.

The punctuated equilibrium trope also speaks to the second major tension in social theory mentioned in the opening paragraphs: between accounts that privilege the fluidity of the social order and those that aim to explain its stability. Both can be accommodated as periods of structure-enforced stability alternate with episodes of rapid change brought on by exogenous shocks (which may be economic, political, demographic, or technological, to name a few). This is a welcome amendment to some past approaches in social science (especially those with structuralist roots) that concerned themselves exclusively with the continuity and stability of the social field and were therefore poorly equipped to address change, variability, diversity and individuality.[46] Geertz's cultural systems are commonly seen as emblematic of this problem, postulating homogenous and fixed group traits within a society, impervious to both internal variation and fluctuation over time. Most contemporary political science methods are similarly primarily concerned with investigating conditions of stability: rational choice focuses on equilibrium conditions, historical institutionalism on stable self-perpetuating organizations and regimes, sociological institutionalism – like classical structuralism – on ideas and scripts, rather than their invocation.[47] Such frameworks offer few resources for analyzing endogenous change except as the breakdown of the target condition.

Punctuated equilibrium also bolsters many forms of individualism in this regard. To the extent they attempt to explain macroscopic transformational effects, this is often

---

[44] This particular formulation hails from evolutionary biology, by way of Stephen Krasner ("Approaches to the state: Alternative conceptions and historical dynamics." *Comparative Politics* (1984): 223-246.), but the core concept reappears in many classics of sociology and related fields.

[45] A. Swidler, "Culture in Action: Symbols and Strategies", *American Sociological Review,* 51 (1986), 273-286. Margaret Archer's work is also influential in this regard. It conceptualizes history as periods of morphostasis when structural factors (habit) prevail, punctuated by times when individuals exercise a greater degree of reflexivity (morphogenesis). See Archer, *Culture and Agency*; Margaret Scotford Archer. *Structure, agency and the internal conversation*. Cambridge University Press, 2003; Archer, "Routine, Reflexivity, and Realism." Archer picks up the notion from William Buckley and David Lockwood (A. King, "Thinking with Bourdieu against Bourdieu", *Sociological Theory*, 18 (2000) 417-433).

[46] For a discussion of the connection of individual agency and social change in recent social theory see M. L. Fitzhugh and W. H. Leckie, "Agency, Postmodernism, and the Causes of Change", *History and Theory,* 40 (2002), 59-81.

[47] Lieberman, Robert C. "Ideas, institutions, and political order: Explaining political change." *American political science review* 96.04 (2002): 697-712. These disciplines excel at cataloging mechanism of stability beyond obvious factors such as entrenched interests: lock-ins of technology, infrastructure, and knowledge; returns to scale; and so on (e.g., Pierson, Paul. "Increasing returns, path dependence, and the study of politics." *American political science review* (2000): 251-267).

done by reference to the actions of authoritative individuals who carry out "planned change"[48], political and institutional entrepreneurs who "leverage resources to create new institutions or to transform existing ones"[49], or exceptional individuals who through their unique brilliance and charisma are able to steer society in new directions. Yet such exceptions hardly prove the rule of structural explanation that are supposed to hold generally. Within the punctuated equilibrium model, on the other hand, episodes of rapid change can be viewed as creating opportunities for political entrepreneurs to draw on multiplicity of meanings or exploit exogenous shocks for their own purposes, while in periods of stability the extant semantic structures place bounds on individual innovation.

Punctuated equilibrium is thus a convenient way to join two conflicting ontologies without getting bogged down in deep theoretical puzzles. It is also a compelling solution in so far as much of history, especially those highly salient events and processes that we colloquially *mean* by "history," seem to fit this model. But segregating structure-dominated times of stability and agency-driven transformative events into separate phases of history only perpetuates the conceptual duality and does not do justice to reality. On the one hand, events that look like sharp discontinuities from a distance are usually a complex processes (or a result of complex processes) with extensive internal structure that itself demands explanation. On the other, the apparent high-level stability of social arrangements masks a continual process of adaptation and change. While individuals are necessarily implicated in this, the continuous non-intentional evolution of semantic structures also bears explanation.[50] Indeed, historical events may be best interpreted as eruptions of latent tensions and alterations built up over time.[51]

While the dissertation focuses first and foremost on the structure/agency dichotomy, a theoretical resolution of that issue would also provide a path toward addressing the question of change within stability. With respect to both issues, the aim is not to integrate particular *theories* (say, symbolic interactionism and structural functionalism), though bridging levels of analysis in some way is unavoidable. The challenge, instead is to adequately articulate the conceptual dialectic.[52] As John Zammito puts it, "we need a theory which registers the *entrenchment* of practices, apparatus, and concepts as structures… [as well as] the radical novelty that erupts at the concrete level

---

[48] Wanda J. Orlikowski. "Improvising organizational transformation over time: A situated change perspective." *Information systems research* 7.1 (1996): 63-92, 63.

[49] Steve Maguire, Cynthia Hardy, and Thomas B. Lawrence. "Institutional entrepreneurship in emerging fields: HIV/AIDS treatment advocacy in Canada." *Academy of management journal* 47.5 (2004): 657-679, 657.

[50] Orlikowski, "Improvising organizational transformation over time"; Clemens, Elisabeth S., and James M. Cook. "Politics and institutionalism: Explaining durability and change." *Annual review of sociology* (1999): 441-466.

[51] Sewell makes a similar point in his theory of "events," allowing that modifications in structures can accumulate over time, eventually resulting in bursts of dramatic crisis. But I believe his view still makes an unwarranted categorical distinction between minor alterations that preserve the overall framework and historic events that transform them. With respect to semantic structures, at least, minor evolutions can over time yield dramatic differences. Linguistic evolution may be the best example. While "events" may have affected how languages evolve, there are few instances of rapid linguistic change.

[52] George Ritzer makes this distinction, though it is unclear how far it can be pushed (Ritzer, "Micro-macro linkage in sociological theory").

of events and agency in history."[53] The belief that we are the authors of our own action, free to develop and reevaluate our understandings and received traditions is not only introspectively inescapable, but weaved into our most fundamental social practices and relations. At the same time, the persistence of patterns and structures – and specifically semantic micro-structures – is manifest across all aspects of life. In the context of the preceding discussion, we can reformulate the dichotomies noted by Sztompka and Zammito into the following questions: How do "objective" semantic structures inform the intentions and purposes of social actors? Can subjectivity be naturalized *in terms of* supra-individual factors? How do structures persist in the face of individual creativity, or alternatively, why do people act in ways that conform to and perpetuate the observed social patterns? Can we identify meaningful common patterns in the way structures tend to evolve?

Effective inquiry will demand greater terminological precision, and the following chapter will further analyze the notion of "agency," but these are enough to begin charting out a course of inquiry. Clearly, no silver bullet is in the offing; we cannot hope to simply locate agency in a structural pineal gland. One possible outcome would be to find that one or the other side of the duality is simply a conceptual confusion. Thus some philosophers argue that the folk psychology notions of the self, free will, and intentionality are misinterpretations and illusions that will be swept away by scientific progress. Although this is a logically possible outcome, I will pursue a social ontology that recognizes the force of both sides of the agency/structure and change/stability dualities in a substantive way that is conducive to practical application.

II. "Practice Theory"

One promising approach, which has been variously termed a 'cultural', 'historical' or 'practical' turn, attempts to locate the juncture of structure and agency in the activities of daily *praxis*.[54] It stresses the situated and implicit nature of practical knowledge, the routinized nature of practical skills, and the importance of the material environment. Some authors under this broad tent further propose to interpret human activity by parsing it into distinct practices: stable and structured clusters of behaviors, communicative actions, and accompanying mental activities that together render the world meaningful to participants. Commonly cited examples of practice include training-intensive professions (surgeon, jazz musician) and modes of social interaction (flirtation, market exchange). But, in fact, most of our behavior, especially social behavior, can be described as participation in some practice, often more than one.

This "practice theory" has been repeatedly cited by writers in anthropology, historiography, organization theory, and other fields as the path toward a solution for the two dilemmas of social theory because it embraces the situated nature of social activity

---

[53] John H. Zammito, *A Nice Derangement of Epistemes: Post-positivism in the Study of Science from Quine to Latour* (Chicago: University of Chicago Press, 2004), 230.

[54] Karin Knorr Cetina, Theodore R. Schatzki, and Eike Von Savigny, eds., *The Practice Turn in Contemporary Theory* (New York: Routledge, 2000); Andreas Reckwitz. "The status of the "material" in theories of culture: From "social structure" to "artefacts"." *Journal for the theory of social behaviour* 32.2 (2002): 195-217.

and explicitly takes individuals as agents of change.[55] Although similar to symbolic interactionism and ethnomethodology in its focus on situational interaction, it also directly addresses the large-scale patterning of action. The enactment of a practice is taken to be simultaneously the manifestation and the anchor of structures ostensibly without eliding the performing subject. Furthermore, practice theories interpret social systems as the product of individual performances. The stability of structures is thus unmasked as a continuous cycle of reproduction subject to the vagaries of unintended outcomes, creating a space for theorization of social change as failed or deviant reproduction.

Theorizing *praxis* is by no means a new endeavor. Aside from the Aristotelian tradition, the American Pragmatists may be considered the first generation of practice theorists for their championing of implicit and practical knowhow and the insistence on the ubiquity and importance of habits and routines. The more recent incarnation of practice theorizing synthesizes a variety of other philosophical sources. Ludwig Wittgenstein's contention that the common activities of a community anchor the meanings and language shared by its members exercises an important though usually indirect influence on all such theories. Similarly, Martin Heidegger's prioritization of bodily activity and knowledge over purely intellectual understanding is another philosophical cornerstone.[56] Practice theories also tend to carry a heavy debt to classical structuralism, even as they go beyond it. More obliquely, much work on practice theory is inspired by Harold Garfinkel's ethnomethodology – both by its emphasis on activities in local context[57] and by its concern with the cyclical interaction between rules and their invocation.[58]

With such a broad foundation, individuals as diverse as Oakeshott, Polanyi, Ryle, Gadamer, and Rorty may be considered practice theorists, depending on how strictly one defines the term.[59] But the first major theorist to systematically treat practice as a means of credibly linking structure and agency was Pierre Bourdieu. Bourdieu argued that most activities are guided by a "practical sense," an internalization of "objective conditions" by each person that subconsciously guides their performances without determining them.[60] Bourdieu viewed the moment of enactment of a practice as bridging the gap between the agent and the ontological reality of society-wide cognitive macro-structure (*habitus*), as a person is forced to improvise in applying received meanings to new situations rich with ambiguity.[61] Because the social order is continuously recreated in

---

[55] Ortner, "Theory in anthropology"; Gabrielle Spiegel, "Introduction" in Gabrielle M. Spiegel, ed. *Practicing history: new directions in historical writing after the linguistic turn*. Routledge, 2004; Orlikowski, "Improvising organizational transformation over time."

[56] Theodore Schatzki's theory of practice explicitly engages the influence of Wittgenstein and Heidegger (Theodore Schatzki. *Social practices: A Wittgensteinian approach to human activity and the social*. Cambridge: Cambridge University Press, 1996).

[57] Kwang-ki Kim. *Order and Agency in Modernity: Talcott Parsons, Erving Goffman, and Harold Garfinkel*. SUNY Press, 2012, ch. 4.

[58] Coulter, "Human practices."

[59] Stephen Turner. *The social theory of practices: Tradition, tacit knowledge, and presuppositions*. (University of Chicago Press, 1994), 2-3.

[60] Bourdieu, *The Logic of Practice*, 69.

[61] A similar relation between culturally-specific semantic structures and their realization in practice is proposed by Marshall Sahlins to his work on Polynesian islands (M. Sahlins, "Individual experience and cultural order" in Spiegel, *Practicing History*, 111–120, 120). While taking on the Saussurian dualism of

these performances, it is contingent and can always go differently, potentially accounting for both stability and change.

Although less concerned with "practice" as a distinct concept, Anthony Giddens's and William Sewell's critiques of structuralism move in the same direction.[62] Structuralism is usually understood to be concerned with the relations and patterns of interactions among the units of a system (individuals in society, lexical tokens in a language). But Giddens contends that it is instead the enacted practice itself that has structure, that 'structure' is a property most fruitfully attributed to social *processes*, which continuously recreate the preconditions of their own continuation. William Sewell further decomposes structure into practice-specific semantic bundles from which the actor is able to achieve some distance, creating opportunities for improvisation and creativity.

More recently, Theodore Schatzki has articulated an explicitly Wittgensteinian theory of practice that emphasizes the relationship of practice to meanings.[63] On Schatzki's view, practices first and foremost render the world intelligible by literally locating meaning in patterns of real-world activity. They shape how actors perceive their situation, automatically projecting appropriate responses, and perpetuating the practice in the process.

Practices as understood by these four authors are more than habits in the ordinary sense of the word; they constitute the semantic context and practical skills which enable individuals to competently engage in their world.[64] Although others have made important contribution along the way[65], Bourdieu, Giddens, Sewell and Schatzki represent the most sustained and innovative contributions to practice theory relevant to our purposes.

There are also a number of related contemporary approaches that are nevertheless poor candidates for this project. The most similar of these is an approach in sociology of science and learning exemplified by Bruno Latour's Actor Network Theory and Andrew Pickering's thick description of science as a complex of material procedures and interpretations. These share many of the practice theory motifs, particularly a focus on non-declarative knowledge, *doings* vs. theory, and the incorporation of material objects as full members of a practice.[66] However, most of this work does not extensively

---

langue and *parole*, Sahlins points to the moment of enactment as a point where the sign may be 'functionally displaced' – either through inflection by the actor or a change in the situational context.

[62] Giddens, *Central Problems*, *New Rules of Sociological Method, The Constitution of Society*.

[63] Schatzki, *Social Practices*. His account is more philosophical in its orientation, but is nevertheless intended to be applied in real-world analyses.

[64] Andreas Reckwitz discusses how its interpretations of several themes (agents, discourse, material objects, knowledge) distinguishes practice theory from traditional economic and sociological frameworks, as well as other meaning-based ("cultural") accounts of the social world. (Andreas Reckwitz. "Toward a Theory of Social Practices A development in culturalist theorizing." *European journal of social theory* 5.2 (2002): 243-263).

[65] Roy Baskhar and Ann Swidler come immediately to mind.

[66] Bruno Latour and Steve Woolgar, *Laboratory Life: The Construction of Scientific Facts* (Princeton: Princeton University Press, 1986); Bruno Latour, *Science in Action: How to Follow Scientists and Engineers Through Society* (Cambridge: Harvard University Press, 1987); Andrew Pickering, *Science as Practice and Culture,* (Chicago: University of Chicago Press, 1992); Ewa Domanska. "The material presence of the past", *History and theory* 45.3 (2006): 337-348. This work traces back most proximately to a distinction between descriptive and practical knowledge, best articulated by Michael Polanyi in *The Tacit*

evaluate how the practice reflects back on the individual and how it engenders agency. Thus, like poststructuralism (to which this literature is often considered to belong), it is best categorized under semantic structuralism and set aside.

In the past two decades, the use of the practice concept has become fashionable in sociology and anthropology, where it is employed as a lens through which to analyze the emergence and endurance of social phenomena ranging from standards of comfort and cleanliness to automobile culture and tango.[67] It has also spread to a number of other disciplines[68], seeing particular success in organizational and management studies and professional education.[69] But despite its increasing adoption in the literature, it has rarely been used to address the agency/structure or change/stability dilemmas. In many cases the term is appropriated superficially without a serious examination of what constitutes a practice or what commitments its use entails. As John Postill complains, all too often, "[Practice theory] and its cognates are used as lexical means towards ethnographic ends... practices are seldom unpacked."[70] In many cases, the framing of analysis around "practice" is used largely to signal a concern with concrete reality over grand theory and with processes over entities. "Practice" commonly means little more than activity in the world and yields little analytical benefit.

To be sure, some of this work – often drawing explicitly on Bourdieu, Giddens, or Schatzki – *does* give "practice" analytic substance, usually defining it as a web of material objects, basic behaviors, utterances, locations, bits of knowledge and skills, forms of interaction, and so on. Practices are then said to emerge, stabilize and die out as the links between these constituent elements are solidified or broken.[71] Decomposing a

---

Dimension (Doubleday, 1966) and taken up in Brown and Duguid's and Lave and Wanger's canonical studies that demonstrated the importance of *in situ* learning (John Seely Brown and Paul Duguid. "Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation." *Organization science* 2.1 (1991): 40-57; Jean Lave and Etienne Wenger. *Situated learning: Legitimate peripheral participation*. Cambridge university press, 1991).

[67] Jennifer L. Kent and Robyn Dowling, "Puncturing automobility? Carsharing practices." *Journal of Transport Geography* 32 (2013): 86-92; Birgit Brauchler and John Postill, eds. *Theorising media and practice*. Vol. 4. (Berghahn Books, 2010); Beate Littig. "On high heels: A praxiography of doing Argentine tango." *European Journal of Women's Studies* (2013); Elizabeth Shove. *Comfort, cleanliness and convenience: The social organization of normality*. Oxford: Berg, 2003; and Elizabeth Shove, Mika Pantzar, and Matt Watson. *The dynamics of social practice: everyday life and how it changes* (Los Angeles: Sage, 2012).

[68] A partial map of its influence can be found in Stephen Kemmis, "What Is Professional Practice? Recognizing and Respecting Diversity in Understandings of Practice" in Clive Kanes (ed.), *Elaborating Professionalism: Studies in Practice and Theory* (Springer Science, 2010), 139-165.

[69] W. J. Orlikowski, "Sociomaterial practices: exploring technology at work", *Organization Science,* 28 (2007), 1435-1448; W. J. Orlikowski and M. S. Feldman, "Theorizing Practice and Practicing Theory" *Organization Science* (2011), 1-14; S. Gherardi, "Knowing and learning in practice-based studies: an introduction", *The Learning Organization,* 16 (2009), 352-359; R. Whittington, "Putting Giddens into Action: Social Systems and Managerial Agency", *Journal of Management Studies,* 29 (1992) 693–712; and M. Özbilgin and A. Tatli, "Understanding Bourdieu's Contribution to Organization and Management Studies", *Academy of Management Review,* 30 (2005), 855-869.

[70] John Postill. "Introduction: Theorising media and practice." *Theorising media and practice* (2010): 1-32, 5.

[71] Elizabeth Shove and Mika Pantzar. "Consumers, Producers and Practices Understanding the invention and reinvention of Nordic walking." *Journal of consumer culture* 5.1 (2005): 43-64; Tom Hargreaves. "Practice-ing behaviour change: Applying social practice theory to pro-environmental behaviour change." *Journal of Consumer Culture* 11.1 (2011): 79-99; Shove et al, *The dynamics of social practice*;

practice in this manner helps to focus on the way particular behaviors reinforce or degrade existing norms and institutions. For example, framing a transportation culture as a web of specific routines, understandings, and resources helps to identify previously unconsidered factors that reinforce the current carbon-intensive automobile-centered system and point to effective levers for transitioning away from it.[72]

Yet most such applications of practice theory have a structural bent. In their sophisticated and detailed analysis of the advent of driving in the 20th century, Elizabeth Shove and colleagues define "practices" as configurations of three classes of elements: material objects, habits and competencies of individuals, and social and symbolic meanings.[73] In this scheme, the transformation of practices over time is a matter of co-evolution of elements, as when the shift in the social status of driving – from a luxury pursuit to a merely instrumental activity – generated a new demand for more mechanically reliable vehicles.[74] While helpful, the approach explicitly avoids interrogating the elements themselves. Thus it would be outside the scope of such practice-based study to examine the logic of social status or the network effects that may have been responsible its alteration (though, of course, any particular study can augment this structural analysis with a focused examination of individual elements). Furthermore, their coarse grained description of the elements of a practice cannot furnish resources for analyzing how a practice may respond to a particular external pressure or event. Investigating these processes requires more fine-grained knowledge: of how these elements are transmitted, of the improvisational capacities of social actors, and of factors determining whether those improvisations are incorporated into the practice or discarded. This in turn demands a more precise understanding of a practice's constituent elements including subjective perspective of the performance. And so the theoretical gap between agents and structure remains.

III. The Logic of the Dissertation

Chapter 2: Neostructuralist Beginnings

I believe the inability of previous practice-based accounts to resolve the two dilemmas of social theory stems from certain basic weaknesses. The dissertation proceeds dialectically, using critique of past frameworks to develop a theory of practice more suited for present purposes. I begin in chapter two with the "first generation" of practice theory laid out in a set of essays in sociology, anthropology and history in the 1970s and 1980s, because these explicitly viewed practice as the key to the dilemmas in question. Since they do not fully transcend structuralism (I argue), I call the writings culled here – primarily drawn from Bourdieu with some ancillary elements from Giddens and Sewell – "neostructuralist."

Friedrich Glock. "Design tools and framing practices." *Computer Supported Cooperative Work (CSCW)* 12.2 (2003): 221-239; Kent and Dowling, "Puncturing automobility."

[72] Matt Watson. "How theories of practice can inform transition to a decarbonised transport system." *Journal of Transport Geography* 24 (2012): 488-496; Hargreaves, "Practice-ing behavior change."

[73] Shove et al, *The dynamics of social practice.*

[74] Ibid, 31.

To more precisely evaluate previous formulations of practice theory, chapter two also continues the work begun in section I above of clarifying the relevant meanings of subjectivity and agency. The range of denotations of the word 'agency' (and even 'intentionality') is vast. The analysis distills three capacities as particularly salient in this context: purposeful action, semantic creativity and critical introspection. I then argue that neostructuralist practice theory (NPT) largely fails to reconcile these three aspects of agency with semantic structures, primarily because it places too much conceptual weight on the conditioning phase (acquisition of semantic structure), and too little on the performance phase (how that structure is activated). NPT also cannot effectively conceptualize endogenous change because semantic structures ultimately exercise overriding influence over behavior so that the theory must rely on external sources as catalysts of change.

Chapter two also considers objections that have been raised against the viability of the practice concept as a sociological tool. Jeffrey Alexander, for instance, warns the concept is applied on a large scale – where we speak of practices of a group as we inevitably must – materialist structuralism reasserts itself.[75] One of the most persistent critics has been philosopher Stephen Turner who impugns the very possibility of social objects like practice, arguing that unless they are somehow 'downloaded' whole by each person, any partial transfer of implicit knowledge would be mediated and conditioned by a person's unique learning history.[76] As a result, the social object acquired would never be quite the same among individuals, so that any apparent uniformity is "literally superficial, a matter of external similarity, with internal or personal consequences [i.e., cognitive structures] that vary from individual to individual."[77] If successful, this objection would prevent practice theory from getting off the ground. If social activity is simply an outcome of individual habits, skills or coping mechanisms which do not permit meaningful generalization, practice theory loses any claim to explanation. I argue that although NPT has certain avenues of response, none of them are convincing because its notion of practice remains underdeveloped and because it remains too indebted to structuralism.

Chapter 3: Interpretivist Practice Theory

In short, the NPT approach fails to realize the promise of practice. It starts with structures and attempts to carve out a way for agents to manipulate or get distance from them, but ultimately cannot do so convincingly. In the third chapter, I examine an interpretive practice theory that works in the opposite direction, beginning from the subjective standpoint. I contend that practices are the source of structured meanings that *situate* participants by rendering the world – as well as intentions, introspective evaluation, and novel ideas – intelligible. The question then becomes, What is the nature

[75] J. C. Alexander, *Fin de siècle social theory: relativism, reduction, and the problem of reason* (London: Verso, 1995).
[76] S. P. Turner, *Brains/Practices/Relativism: social theory after cognitive science* (Chicago: Chicago University Press, 2002), ch. 3; also see Stephen Turner "Practice then and now" (*Human Affairs,* 17 (2007), 111–125), and "Mirror Neurons and Practices: A Response to Lizardo" (*Journal for the Theory of Social Behaviour,* 37 (2007), 351-71).
[77] Turner, "Practice then and now", 114.

of intelligibility as experienced by social actors? The rest of the dissertation explores the three answers to that question that have achieved currency in the 20th century.

The first answer to consider identifies language as the source and reservoir of meaning. A number of theorists have defended some version of this position. I briefly examine Charles Taylor's and John Searle's arguments, which are some of the most influential. However, as both writers ultimately acknowledge, language – as a symbolic system – can only be a secondary mechanism of organizing meaning that must be rooted elsewhere. Thus, though it clearly aids intelligibility, it cannot be the primary basis of it.

The second answer locates the medium of intelligibility in socially shared "forms of life," bringing us back into the ambit of practice theory. As mentioned above, previous theoretical frameworks, notably Symbolic Interactionism, have also characterized local interactions of individuals as the home of meaning. But Theodore Schatzki's Wittgensteinian conceptualization of practice is the most developed (and philosophically grounded) account of practice as the basis of meaning. Schatzki explains mental experience as reflections of the goings on in the public world and performances of social practice as literally the substance of meaning. As such, the context of a practices signifies for a person what it makes sense to do and say, want and strive for.

Schatzki's objectivist definition of practice has the virtue of deftly handling Turner's objection, since there is nothing more to a practice beyond what is (potentially) observable, no troublesome internal states to be accurately transmitted. However, Schatzki's theory of practice requires a peculiar theory of mind that rejects the causal reality of intentions and other mental states, complicating the incorporation of goals, values and other motivational structures, and ultimately undermining its prospects as the means of reconciling structure and agency. I contend that his characterization fails to do justice to the phenomenal and embodied aspects of subjective experience and cannot realize the target forms of agency. Furthermore, because he retains the idea of practice as a stable entity in the social realm but severs it from mental experience (as ordinarily conceived), he is forced to regard practice as an ontologically independent semantic medium that is logically prior to the individual subject, which undermines his response to Turner.

The upshot of this chapter is that solving the two identified dilemmas of social theory requires situating agency in interpretive, semantically-generative practice. However, restricting practice to what occurs in the space *between* individuals fails to get at the subjective experience of meaning, which I argue is the basis of agency. An alternative formulation of interpretive practice is necessary that directly engages the mental and embodied aspects of intelligibility. Thus, chapter four proposes a way of grounding meaning in the phenomenal and cognitive aspects of practice and shows how semantic structures come to constitute the experience of agency in the course of perception and comprehension of the world. The approach bears similarity to Parsons's description of the internalization of the social order – except at the level of performance rather than personality. But whereas Parsons looked to Freud to inform his theory, chapter four looks to recent work in cognitive science.

Chapter 4: Toward an Embodied Theory of Meaning and Practice

This chapter elaborates the 3rd foundation of intelligibility: embodied experience and the cognitive processes that underpin it.[78] Putting claims of agency and structure on the same (naturalistic) theoretical footing illuminates the way semantic structures arise out of the performances of practice by embodied social actors and the way they in turn *translate into* subjective experience of actors.

The articulation of the theory proceeds in three movements. First, I detail what it means for intelligibility to be constituted by bodily experience in the world. I contend meaning is the phenomenal experience of reactivations of past sensorimotor experience and other theoretically observable processes. That is, the occurrent thought that instantiates any specific concept invokes past experiences captured by that concept (which is often structured by a practice), giving meaning an inherently about-the-world orientation.

Second, I argue that sensory perception is not a passive state (as per Lockean dogma) but a continuous activity of meaning-making, in which raw sensory input is filtered through and overlaid with a number of semantic layers: one's momentary concerns and focus of attention, emotional and moral evaluation of the situation, and one's skills and abilities. It is in this process of constructing a meaningful representation of the world that agency becomes possible and semantic structures exert their influence. Perhaps the most important of the semantic layers projected onto the experience of the world is the set of possibilities of interactions with it or "affordances," to use J.J. Gibson's term. While traditionally affordances are referenced in the context of physical interaction with one's material environment, I suggest that they offer a fruitful interpretation of the mental world as well. Finally, in the third movement of the main argument, I describe how the three forms of agency that I identified in the second chapter can be found within the process of sense-making just described. Along the way, I address a variety of details and complications, such as the ontological status of semantic structures when they are not consciously entertained.

The fourth chapter makes three additional points. First, while practices have embodied and mental aspects, they are of a social realm. The meanings rooted in them inevitably have a social aspect; in fact, social awareness is one of the semantic layers projected onto the world in the course of active perception (I flesh this out with a discussion of person-level and subpersonal psychological mechanisms that give rise to social awareness). Since the goal of this project is not only to address the conceptual puzzles set out at the beginning of this introduction, but do so in a way that is useful in applied social analysis, the chapter makes the second point of operationalizing the concept of practice such that multiple performances may be said to be of the "same" practice. This requires me to directly respond to Stephen Turner's objection. Finally, I argue that an embodied theory of practice offers new ways to think about the evolution of social systems. I take up several factors it suggests may contribute to stability or mutability of practices, as well as the mechanisms that play a role in endogenous change.

[78] Over the past decade, a variety of related techniques from cognitive linguistics and neuropsychology have become increasingly sophisticated both in academia and in commercial applications. Yet there has been surprisingly little attempt to integrate them into social theory.

Conclusions

I conclude the dissertation by exploring some potential contributions that an embodied conception of practice can make to political theory and applied analysis. At the end of chapter four I look at two prominent issues in political theory: normative arguments about minority cultural rights and the viability and potential benefits of deliberative democracy. In the final chapter I sketch out some practical and methodological implications of the project. I begin by positioning embodied practice theory *vis-a-vis* other explanatory frameworks in social science. I then consider observational and experimental methods motivated by the theory. Finally, building on the theoretical discussion of deliberative democracy in chapter four, the chapter concludes by sketching out how these methods may be leveraged in analyzing actual performances, using two forms of deliberative democracy as examples.

Chapter 2: Neostructuralist Beginnings

This chapter examines early work on practice theory as it appeared in the literature of sociology, anthropology, and history to show why its amendment of structuralism is inadequate and to identify what analytic work remains to be done. It begins by sketching the core elements of a sociological practice theory that may be derived from the contributions of Pierre Bourdieu, Anthony Giddens, and William Sewell and then evaluates the response such a theory can muster to structuralism's exclusion of the intentional subject (section II) and absence of diachronic analysis (section III). By expanding its scope to the question of how systems are produced and reproduced and how structure and subject interact[79], practice theory was supposed to reintegrate the concepts of time and agency into the theoretical framework, superseding the objectivism-subjectivism duality.[80] I argue that the form of sociological practice theory reconstructed here fails to address either challenge because it considers neither the nature of underlying mental structures nor how the subject activates practical knowledge in the context of a lived performance. Despite the extensive commonalities binding this literature, at the time, practice theory did not yet constitute a coherent program, and so this discussion occasionally focuses on contributions of individual writers. Finally, I introduce and evaluate an objection to the very idea of practice as an independent analytic entity raised by Stephen Turner (section IV). Because most of the work examined retains the terminology and attendant imagery of structure in both its physical and mental senses (despite the express intention of most of the authors to go beyond the notion), I refer to this formulation of practice theory as neostructuralist.[81]

I. A Neostructuralist Practice Theory

A neostructuralist practice is a social activity that exhibits stable patterns arising from the tacit, quasi-embodied, generative "rules" or "schemas" that guide the behavior of the individuals involved, typically without their conscious awareness. It is constituted by the dialectic between the collective stock of such schemas and the physical context in which they are employed (a dialectic between '*habitus*' and 'objective conditions' for Bourdieu, 'rules' and 'resources' for Giddens, 'schemas' and 'resources' for Sewell).[82] A practice

[79] Sherry B. Ortner, "Theory in anthropology since the sixties", Comparative Studies in Society and History 26.1 (1984), 126-166, 148.

[80] *The Constitution of Society: Introduction of the Theory of Structuration* (Berkeley: University of California Press, 1984) [henceforth *CS*]: xx.

[81] For similar reasons, Schatzki groups Giddens, Bourdieu and Roy Bhaskar together as "new structuralists" (Theodore R. Schatzki, "Do social structures govern action?" *Midwest Studies in Philosophy* 15.1 (1990): 280-295). His discussion is rather preliminary, and he sets Bourdieu aside, as still largely unfamiliar to the English-speaking audience. Twenty years later it is Bhaskar who has become eclipsed by the others.

[82] The following discussion draws primarily on the following volumes: Giddens, *Constitution of Society*; Anthony Giddens, *Central Problems in Social Theory: Action, Structure and Contradictions in Social Analysis* (Berkeley: University of California Press, 1979) [henceforth *CPST*]; Anthony Giddens, *New*

can be said to encompass its material elements (physical features of the environment including technology and instruments), types of locations, physical and relational organization of individuals (e.g., romantic relations, political hierarchies, employment arenas), command over resources (e.g., property rights, themselves embedded in other practices)[83], and the guise that these resources and objects assume within the performance of a practice.

The rule or schema aspect of a neostructuralist practice is not to be understood as a prescription or norm that actors consciously follow or break. Rather, it is a rule in a Wittgenstenian sense: a generalizable procedure, the knowledge of "how to go on"' in a particular context, typically without a symbolic or propositional representation. These schemas constitute agent-relative, tacit[84] knowledge, such as the way one "knows" the way around one's home or the expected sequence of verbal exchange when ordering a cup of coffee. They incorporate knowledge of objects – possessing the concept of chair is better conceived of as a skill of identifying and using chairs, intuited from past experience, rather than a precise propositional specification of CHAIR, and constitute an "intimate understanding" or practical mastery that is systematic but imprecise, allowing for the peculiarities of different situations. These rules and schemas are phenomenally expressed as inclinations or dispositions[85], operating outside the scope of active attention as they pre-select responses and courses of action in an activity. Although some quasi-propositional rules (for instance, much of our language skills) are susceptible to introspective analysis, many of the more basic schemas, such as those pertaining to physical orientation and gender identity, resist such scrutiny except in very indirect forms. They are experienced as "somatic markers," to borrow the term coined by Antonio Damasio – the "unconscious, visceral normative weights that ordinarily accompany our representations of the world." [86] The tacit and intuitive nature of this epistemic background is particularly apparent in physically demanding or fast-paced activities such as competitive sports or stock trading[87], where time pressure precludes conscious deliberation.

Rules of Sociological Method (New York: Hutchinson, 1976) [henceforth *NR*]; Pierre Bourdieu, *The Logic of Practice* (Stanford: Stanford University Press, 1990) [henceforth *L*]; Pierre Bourdieu, *Outline of a Theory of Practice* (Cambridge: Cambridge University Press, 1977) [henceforth *Outline*]; William Hamilton Sewell, *Logics of History: Social Theory and Social Transformation* (Chicago: University of Chicago Press, 2005).

[83] *CS*: 100. Giddens further categorizes the resource component of structure into "allocative" (actual material resources) and "authoritative" (dominion over other human beings).

[84] Much of this work draws implicitly, sometimes explicitly on Polanyi's *Personal Knowledge* (Michael Polanyi, *Personal knowledge: Towards a post-critical philosophy*. Psychology Press, 1962) and from Gilbert Ryle's idea of 'know how' (Gilbert Ryle, *The Concept of Mind* (Chicago: University of Chicago Press, 1949).

[85] Bourdieu specifically describes these schemas impinging on consciousness as "dispositions." But the translator of Bourdieu 1977 notes that 'disposition' has a wider but similar meaning in French: "it also designates a *way of being,* a *habitual state* (especially of the body) and, in particular, a *predisposition, tendency, propensity,* or *inclination*" (*Outline*: 72f1).

[86] Slingerland, Edward Gilman. *What science offers the humanities*. New York: Cambridge University Press, 2008: 44.

[87] Using Bourdieu's paradigm Richard Widick relates how the lightning fast pace of a stock trading floor forces the traders to absorb the language and skills of the practice until it becomes second nature and a prism through which *all* reality is seen (Richard Widick, "Flesh and the Free Market:(On Taking Bourdieu to the Options Exchange)" in *After Bourdieu*. Springer Netherlands, 2005. 193-237).

Learning a practice thus becomes a matter of acquiring such background knowledge via intuition (building on previous experience in analogous situations) and tacit and explicit *in situ* learning from peers (most formally through apprenticeships), rather than through symbolic information transfer ("book learning"). At their most mechanical, these schemas are simply adaptations to the physical regularities of the social world. Because the learning occurs in the course of activity in a social environment, it automatically reflects the latter's subtle cleavages – such as the division of labor between the sexes, modes of consumption, and familial relations – which therefore shape subsequent behavior.

The resulting schemas function almost like a Bayesian network, an associative engine[88] that draws on the experience of past interactions to automatically map current conditions to the most appropriate responses that are then "immediately inscribed in the present, [as] things to do or not to do, things to say or not to say."[89] Bourdieu characterizes the schemas or dispositions as "objectively organized as strategies without being the product of a genuine strategic intention."[90] He uses "strategy" here in the sense of a plan of action, rather like emergency contingency plans that are activated by specific circumstances. The world perceived through the prism of a practice already contains procedures to follow and paths to take, goals to pursue and values to esteem.[91] The dispositions of a practice shape our perception and comprehension; they parcel the raw physicality of the world into a set of (re)cognizable objects that are pre-colored with appropriate attitudes. A sense of honor for example, is just the set of dispositions that incline a person to perform actions considered honorable in his milieu, dissuade him from those seen as dishonorable, and enable him to judge the behavior of others on this dimension.

While the centrality of tacit knowledge within practice is common to all writers of neostructuralist practice theory (NPT), Bourdieu further argues that this knowledge is embodied, meaning both that this knowledge literally resides in our muscles, vestibular system, senses, etc., "as a living memory pad,"[92] and that the experience of the body as it carries out practices shapes the associated cognitive content. Bourdieu describes practical knowledge as trussed together by the homologies between physical and conceptual domains which allow, for instance, the relationships in the vertical spatial dimension or the body's vertical position to affect comprehension of concepts in the moral domain.[93] Thus he argued that the feminine virtues in traditional societies, such as the Kabylia that Bourdieu studied, tend the body down, inside, hidden away; male virtues, meanwhile tend up, outside and outwards. He summarizes, "the opposition between male and female is realized in posture, in the gestures and movements of the body, in the form

---

[88] Andy Clark, *Being There: Putting Brain, Body, and World Together Again*. MIT press, 1998: ch. 3.
[89] *Logic*: 53.
[90] Ibid.: 62.
[91] Although as will become clear in the next chapter, the nature of "goals" and "values" here is highly ambiguous.
[92] Ibid.: 69.
[93] Bourdieu at one point defines homology as a "resemblance within a difference." (Bourdieu and Wacquant 1992: 106). Identifying the resemblance or similarity is of course also subjective, but it is not arbitrary with respect to the human organism that is neurologically predisposed to identifying many of the similarities Bourdieu points to. He argues it is simply an observed fact that ostensibly distinct areas of activity are crisscrossed by subtle underlying homologies (*Logic*: 143-155).

of the opposition between the straight and the bent, between firmness, uprightness and directness… and restraint, reserve and flexibility."[94] He argues that virtually every aspect of one's activity and environment can be located on a set of key physical dimensions – maleness, temperature, dryness etc. Social practices are in this way glued together by microscopic but ubiquitous behaviors of daily life.

Practices, then, are temporally and spatially circumscribed social behaviors that can be tied to the engagement of particular behavioral and perceptual schemas and physical resources, the totality of which constitutes social life. Resources acquire their in-practice meaning as people map schemas onto them (e.g., hunks of machined metal become menacing threats when they are brandished as advance artillery), while schemas and the interpretations they give of the world are realized and rejuvenated through their successful application. Even (moderately) different interpretations and uses of schemas serve to "refresh" them.[95] Schemas may be said to be are anchored in the social practices in which they are routinely activated[96], whether that is an ultra-public celebratory parade or a minute and mundane behavior like punching the clock on the job.[97] Coherent (patterned) social structures are internalized and reproduced, automatically generating coherent (patterned) outcomes. The obvious example is language as a communication medium. By learning and using it, as one tries to fit into the community of speakers, its currency is reinforced without any such intention on the part of the speaker. Through repetition, the behaviors and patterns of thought of a practice become ever more routine and natural (buttressed by compounding experience), conforming to and reinforcing the expectations of current participants and drawing in novice ones. The schemas of practices also selectively reinforce perceptions and interpretation of their context, rejecting or ignoring conflicting information.[98] This further strengthens the grip of a practice by masquerading as personal preferences a tendency to prefer situations that have the objective effect of reinforcing extant dispositions and perceptual categories.

An account of a group of working-class boys in England by Paul Willis illustrates how a web of practices perpetuates itself.[99] His study details how their disorderly

---

[94] *Logic*: 70. Bourdieu describes the homologies acting in Kabylia society in extensive detail. Summing up, he writes "The whole of human existence, being the product of the same system of schemes, is organized in homology with the agrarian year and the other major temporal 'series.' Thus procreation (*akhlaq,* creation) is very clearly associated with evening, autumn, and the nocturnal, damp part of the house" (*Logic*: 259). The crucial point is that these are not just superficial linguistic similarities, but as Lakoff and Johnson have argued in their work on metaphors, they are experienced in similar ways and produce similar behavior (George Lakoff and Mark Johnson. "Conceptual metaphor in everyday language." *The Journal of Philosophy* 77.8 (1980): 453-486; George Lakoff and Mark Johnson. *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought* Basic books, 1999); see chapter 4.

[95] Guy Cook, *Discourse and Literature: The Interplay of Form and Mind* Oxford,, England: Oxford University Press, 1994: 60.

[96] Ann Swidler, "What Anchors Cultural Practices" in Karin Knorr Cetina, Theodore R. Schatzki, and Eike Von Savigny, eds., *The Practice Turn in Contemporary Theory* (London: Routledge, 2001): 74-92.

[97] Artisanal professions are the traditional locus of the latter. Thus Richard Biernacki writes, "in the textile industry, the operation of the weavers' piece-rate scales, the assignment of looms, the replacement of absent workers, the recording of earnings [--] all these instrumentalities assumed their shape and were reproduced by virtue of the definition of labor as a commodity they [in turn] sustained" (Richard Biernacki, *The Fabrication of Labor,* 1995: Berkeley, quoted in Swidler 2001:93).

[98] *Logic*: 60-1.

[99] Paul E. Willis, *Learning to Labour: How Working Class Kids Get Working Class Jobs* Columbia University Press, 1977.

behavior in school and the attitudes they acquire through the disciplinary tug of war with authority lead them to leave early with a poor education which confines them to low-paying jobs, confirming their negative expectations. The cycle continues over generations despite the boys' being quite aware of – and resigned to – their troublemaker reputation and the meager prospects it produces. Arguably, they are more knowledgeable than other children about the authority and power structures of the school environment, but this only seals their fate. Willis notes that "the unintended and ironical consequence of their 'partial penetration' of the limited life chances open to them is actively to perpetuate the conditions which help to limit those very life chances."[100] While this narrative is fully within traditional cultural sociology, practice theory additionally puts the spotlight on the way culture is instantiated and reproduced within social institutions informed by it.

The concept of practice also supports a new interpretation of structure, discussed most effectively by Giddens. Rather than practices deriving from or instantiating latent structures, Giddens articulates a theory of "structuration" where structure is viewed primarily as an attribute of enacted practice.[101] He contends that the conceit of methodologically separating synchronic and diachronic analysis stems from the flawed metaphor between the physical and the social domains underpinning the common understanding of 'structure'; in fact, one cannot meaningfully abstract social structures out of time the way Saussure abstracted out *langue*. Unlike an organism, whose anatomy is ontologically distinct from its functioning during life and can be thus isolated (as one would in an autopsy)[102], in the social domain, commonly identified structures exist only in the moment of performance and are not perceptually present outside it. To treat social roles and relations between them as persistent structure (that exists outside of performances) is a category mistake.[103] Instead, 'structures' properly mean sets of 'adverbial structuring properties' exhibited by a system in time, in the sense that speed is an 'adverbial' property of an object's motion. An activity is structured if the *process* of its performance exhibits patterns and recreates the conditions for its own perpetuation. For instance, the structure of chess is not some abstract, symbolic reification of its rules, but rather the patterning of uses to which its material elements are put and situations in actual games, which reinforces the understanding of the game for participants. This view re-integrates time back into social analysis.

The basic NPT model set out so far can be illustrated using the example of the Occupy movement that erupted in the fall of 2011 and dissipated almost as quickly. In New York City (simultaneous protests were planned in other cities) organizers intended to mass on Wall Street itself to hinder the daily activities of the financial companies. But

---

[100] *CS*: 293.

[101] *CPST*: 62-65. Giddens is by no means unique or even the first to offer such a theory. Margaret Archer, building on Buckley's concept of 'morphogenesis', offers the same idea – "'agency leads to structural and cultural elaboration, but is itself elaborated in the process'" (Sztompka, "Evolving focus on human agency"). But Giddens appears to allow for a more nuanced and cogent conception of individual action and agency.

[102] Inferring functionality of parts of a live organism from the carcass is problematic even in biology. Thus the hard boundaries initially ascribed to eukaryotic cells based on observation of dead organisms turned out to misrepresent the much more porous nature of membranes of a live cell once methods of observing live organisms improved. But this flaw in Giddens's analogy only serves to underscore his point.

[103] See *CPST*: 115-20 for his discussion of roles.

the protests were redirected by preemptive police action into Zucotti Park, inadvertently preventing the inevitable public backlash over disruption of the lives of ordinary citizens who would also be impacted, and allowing a long-term "occupation" that became an outlet for anger and frustration of the entire country. The movement itself was of course a complex, amorphous affair, weaving together a variety of practices.[104] Here and in the future chapters I will focus on the practice of conducting "general assembly" meetings that are so emblematic of the movement. These assemblies capitalized on a long history of social anarchism and direct democracy organization, most proximately borrowing from the Spanish *Indignados* that flooded central Madrid, who were in turn inspired by the Arab Spring, and the *horizontalidad* movement and meeting scheme originating in Argentina.[105] General assemblies capture the core of *horizontalidad*: active grass-roots direct democracy and absence of hierarchical leadership.[106]

The general assembly practice incorporates schemas and dispositions of inclusiveness and respect, the behavior expected of participants, linguistic devices and motions involved in directing and entering conversation, expectations about timeframes of meetings and about the types of contributions by participants. The practice also obviously encompasses the routinized activity of the assembly itself, in which one may discern the structuring of physical arrangement of people in assemblies (participants are seated and oriented facing a central location where several facilitators stand), the physical document of the agenda, segmentation of the session by topic, and so on. In the case of Occupy, many of the norms and "rules" of the practice were made explicit and taught to new members in dedicated workshops.[107] However, with experience, participants built up a stock of implicit understanding that fleshed out the skeleton of the explicit rules and allows one to deal competently with novel scenarios – everything from a sense of impropriety evoked by proposals that may not be appropriate, to the visceral reaction in response to the flouting of norms and (for facilitators) the intuition of how to handle such interruptions.

The physical aspects of the practice clearly tie into and reinforce the mental schemas. For example, the use of the "human mic" system, while initially a pragmatic improvisation in response to a ban on sound amplification, serves to implicitly build consensus among participants as they repeat the words of others.[108] Participating in the

---

[104] A number of mostly sympathetic accounts of the events on the ground have been published: Sarah Van Gelder, ed., *This changes everything: Occupy Wall Street and the 99% movement* (Berrett-Koehler Publishers, 2011); Todd Gitlin, *Occupy nation: The roots, the spirit, and the promise of Occupy Wall Street* (New York: Itbooks, 2012); Jeffrey S. Juris, "Reflections on# Occupy Everywhere: Social media, public space, and emerging logics of aggregation." *American Ethnologist* 39.2 (2012): 259-279. Others attempt to evaluate its long term importance: Jenny Pickerill and John Krinsky. "Why does Occupy matter?." *Social movement studies* 11.3-4 (2012): 279-287; Maple Razsa and Andrej Kurnik. "The Occupy Movement in Žižek's hometown: Direct democracy and a politics of becoming." *American Ethnologist* 39.2 (2012): 238-258.

[105] Marina Sitrin, "Horizontalism and the Occupy movements." *Dissent* 59.2 (2012): 74-75.

[106] According to many participants, general assemblies also create an unprecedented space for "action" (see Hannah Arendt, *The human condition* (University of Chicago Press, 2013), part V), a public realm where citizens suddenly have the opportunity and inclination to express their civic identity.

[107] THECONCERTorg**. "**Direct Democracy Part 2 @ Occupy Wall Street - Facilitation Training for General Assembly's." Online video. *Youtube.com*. Youtube. Oct 24, 2011. http://www.youtube.com/watch?v=qXT2_aka60A. Accessed March 4, 2013.

[108] Gitlin, *Occupy Nation.*

assembly is necessarily an active experience – and forces one to either come on board or voice an objection. Foregrounding such connections between the activities and the practical knowledge and dispositions behind them distinguishes practice theory from other cultural social theories.

The short duration of the Occupy movement also illustrates how practices may be either refreshed or weakened in the course of every instantiation. To the extent that general assembly meetings run uninterrupted, agendas and norms of participation are followed, and disruptive comments and actions are deflected by facilitators, the practice is strengthened: its categories and dispositions become more entrenched in the minds of participants, and new members are introduced to it. Over time, small variations in its conduct serve to further adapt the practice to its objective conditions and function. For instance, point of order gestures and agenda structure were modified for greater efficiency, and the range of topics considered appropriate shifted over time.

But the enactment of a practice is also a moment where the practice is subjected to the stresses of unexpected outcomes and novel conditions. A practice may be radically transformed when it is disrupted by external forces, such as police raids in the case of Occupy, or, more generally, when the world fails to conform to its logic.[109] If the mental schemas and habits of a practice develop as a response to a particular set of relatively stable "objective" conditions, such structures are naturally undermined when those conditions change. Fluctuations in resource stocks, technological innovation, changing power structures, immigration patterns, and other developments outside the practice itself mean that every time a practice is carried out, the skills and responses it urges risk failure, potentially leading to gradual or sudden change.

A practice is also be threatened by decreasing effectiveness of its schemas, such as the undermining of the dispositions toward inclusion and radical equality in the case of Occupy, that may occur when a single participant or a disruptive minority manages to consistently capture the process. Occupy Wall Street was infamously dogged by a small circle of drummers that corroded the good will of neighbors and local supporters – yet was not controlled by other participants out of fear of appearing authoritarian.[110] This tension ultimately helped erode the influence of the practice's values on the participants. The prescription of the practice are never completely comprehensive, and the variation of performance in the real world means the outcomes are always in some danger of subtly or grossly contravening the schemas of the practice. The behavioral responses and inclinations they generate become less routine and taken for granted, and eventually even categories of perception that are part of the practice may be explicitly questioned and

[109] As Marshall Sahlins writes coyly, "The deployment of received cultural understandings to specific worldly contexts always harbors the possibility that things will never again be the same – precisely because the 'objective' things, as well as the social persons… also have their own reasons. The world is under no obligation to correspond to the categories by which it is thought." (Marshall Sahlins, "Individual experience and cultural order" in Spiegel, *Practicing History*, 111-120, 120).

[110] Regarding drummers debacle see Ross Wolfe, "Internal tensions within Occupy Wall Street: The Demands working group and the Drummers' working group," *rosswolfe.wordpress.com*, WordPress. Oct. 10, 2011. Web. Dec 26, 2013. For an example of particularly explicit wrangling over how to deal with a disruptive individual without undermining the principles (and indirectly the mental schemas) of the movement and the practice itself see "Proposal from yoni," [n.d.] online discussion, accessed March 2013, New York City General Assembly, http://www.nycga.net/2011/12/proposal-for-1222-proposal-from-yoni/.

rejected. William Sewell calls these two threats to existing structures "objective and subjective risk" respectively.[111]

Sewell highlights "objective" changes in the flow of resources as a frequent cause of shifts in schemas.[112] Because the same physical resources are often recruited in multiple practices, and thus have overlapping meanings, a change in their role within one practice can indirectly affect another one. The markets for basic goods are an infamous example of such an intersection. When basic goods become subjects of speculation, radically limiting their availability (e.g., grain in 18th century Europe), their status as social necessities overrides others, warranting the application of different practices, such as government-imposed price controls, that would otherwise be deemed inappropriate.

Subjective risk, on the other hand, arises from the incompleteness of behavioral prescriptions within a practice, inevitable given the inherent variety of possible situations, leaving a measure of initiative to the actor. The rules and schemas of a neostructuralist practice do not *a priori* determine an actor's behaviors or utterances, and Sewell argues that actors can bend them to their own purposes and mold received meanings to apply to new situations in ways that stretch and reshape the schemas over time.[113] Even Bourdieu, whose view of structure is the most rigid of those surveyed here, insists that the *habitus* always requires improvisation in the moment, which manifests the individuality and agency of the person. The application of partially analogous past experience to new situations always harbors uncertainty and presents opportunities for misapplication – in fact this possibility is crucial to many practices.[114]

The concept of subjective risk may be said to relieve the tension between structure and intentional agency by splitting the difference. The two are put in a zero-sum relationship – the more exactly a structure fits a given situation, the less demand there is for intentional agency (the meaning of which is generally not examined). NPT thus implicitly assumes that circumstances are normally similar enough that the improvisation it demands from actors is minimal so that continuity of practice is the norm; practices automatically adjust to gradual changes without the actors' awareness. It is only when changes in objective reality amplify the normally minute gap between past instances and present conditions, when social shocks like rapid immigration or economic disaster disrupt our routines of interaction with the world and force us to re-examine formerly tacit assumptions and re-evaluate or modify our practices to navigate the new situation, capitalizing on the ambiguities within them – it is in these moments that practices are substantially vulnerable to transformation. Sewell calls such moments "events," Giddens terms them "critical phases," but perhaps most apt is Ann Swidler's eponym of "unsettled times."[115]

---

[111] Sewell 2005: ch. 7.

[112] Ibid.: 216-8.

[113] Ibid.: 193.

[114] For example, in the practice of gift-giving, prevalent across world's cultures, everything rests on the distinction between a gift and a straight exchange, between (subjective) moral obligations and (objective) economic obligations. "Gift exchange is one of the social games that cannot be played unless the players refuse to acknowledge the objective truth of the game" (*Logic*: 106). See chapter 5 of *Practical Reason* for a treatment of misrecognition in another context – gifts as masked financial support of clergy in France (Bourdieu, Pierre. *Practical Reason: On the Theory of Action*. Stanford University Press, 1998).

[115] Ann Swidler, "Culture in Action: Symbols and Strategies." *American Sociological Review* (1986): 273-286. This notion extends to individual lives as well; one can experience such a dislocation from personal

The disjunction between the suddenly anachronistic structures of a practice and the real world (a "hysteresis" effect) brings the former into individuals' consciousness and social awareness.[116] The 'quasi-bodily', deeply rooted nature of the schemas of a practice means they are ordinarily not merely tacit but invisible, difficult to verbalize or even access. But in these moments of aporea, existing categories of thought can no longer adequately function in their normal role, and they may be partially externalized and brought into consciousness, presenting the divergent possibilities of orthodoxy (conscious re-affirmation of *doxa,* or what was previously taken for granted) and heterodoxy (conscious deviation from *doxa*).[117] It is in these moment of high objective risk that NPT locates a reflective agent.

Sewell's account of Bastille in July of 1789 is meant to illustrate how social upheaval creates a space for agency and conceptual transformation. He narrates the way the chaos of that period made timeless social customs, beliefs and attitudes obsolete and opened an arena for conscious innovation.[118] The political turmoil of the first half of 1789 that culminated in the Third Estate declaring itself the National Assembly in June created not only an authority system parallel to the King's, but two radically different moral cosmologies: a traditional hierarchical one, where authority flowed from God through the King cementing the entire social realm in a single unified structure, and one of self-rule, where authority was ultimately rooted in the consent of the governed. This social and political rupture, combined with the apprehension about devastatingly low harvests in the coming weeks, which threatened continuing shortage of food and even catastrophic hunger, engendered a profound "moral and practical uncertainty" among the population. The emotional charge and rapid pace of events dislodged the practical understandings about public behavior, moral sources of political power, and the most fundamental notions of citizenship and society. The understandings of seigniorial and clerical privilege, royal power, and even social relations within families, parishes, municipalities were suddenly externalized and expressed as propositions open to debate, within the common meeting spaces of the citizenry and within the National Assembly.

In the context of this massive shift in objective conditions, a series of events led participants to stretch and reshape received meanings creating the modern conception of 'revolution.' On July 14th, an ad-hoc Parisian militia looking for gunpowder laid siege to and ultimately captured the Bastille, executing two of its royal officials. While urban uprisings were not particularly rare, the taking of the Bastille and its immediate consequences proved an occasion for remarkably enduring conceptual invention. Deliberating in the days after the attack, the Assembly delegates – pressed to justify the people's action that unexpectedly turned in their favor and to separate it from the subsequent, more sinister acts of public violence – came to overlay new semantic clusters onto the (existing) terms 'revolutionary action,' 'liberty,' and 'the people.' These terms had been partially wrestled free of their past semantic associations exposing them to "subjective risk." The National Assembly, consciously drawing on philosophical claims

---

events in the calmest of times (273). The interaction between individual and social dislocation (e.g. how a dramatically rising divorce or crime rate can affect the larger culture) is left unexplored.

[116] Of course, "unsettled times" is a clinal category, a sliding scale of contingency, novelty and vulnerability of the application of prior practices to failure. The degree of fit between a practice and the environment in which it is enacted is likewise a continuum.

[117] *Outline*: 168; *Logic*: 62.

[118] Sewell 2005: ch. 8.

about popular sovereignty elaborated over the previous years by Abbe Sieyes and the multivalent notion of *le people*, ambiguously meaning people both as the very fount of truth and morality and as vulgar common folk, reinterpreted the violent siege as an act of popular sovereignty, a defense of the people's liberty. As a result, a Parisian mob looking for gunpowder in the Bastille was transformed into a citizen army rising up against intolerable despotism and visiting justice on its representative (Bastille's governor), giving rise to and anchoring a host of new conceptual structures and practices.

The Occupy movement also occurred in the context of social upheaval and witnessed a similar semantic reinvention, as a motley band of students, the unemployed, vagrants, and professional organizers became for a time perceived as the representatives of all downtrodden masses of the country, even the world. Economic inequality in America has been growing for the previous four decades but at a pace sufficiently slow that the dominant narrative of self-reliance and opportunity was able to silently incorporate it. The rapid sequence of events of the '08 financial crash and the government's apparent unwillingness to enforce corporate responsibility and substantially help the public, however, could not be thus assimilated. The *doxa* of democratic understandings and economic expectations suddenly entered the public discourse as it was partially dislodged from the embedding practice of traditional democratic participation, which appeared woefully inadequate in the circumstances. The perceived failure of the institutional means of economic assistance and mechanisms of accountability could be read through practice theory as providing a fertile ground for conscious conceptual innovation, in which the familiar protest dynamics would give way to a social experiment and an obscure deliberative mechanism could flourish (if only for a few thousand people).

These two historical events occasion two observations about how neostructuralist practice theory conceives of change. First, despite the conceptual distinction drawn above between subjective and objective risk – deviation of objective conditions from assumptions embedded in a practice and deviations by actors in their enactment – the latter inescapably depends on the former. Both in Sewell's account of the taking of Bastille and in the case of Occupy, practical innovation ensues from a confluence of externally-determined political and economic realities. Thus NPT itself offers little guidance on the etiology of practice's change. Second, "unsettled times" such as these amplify the importance of chance in the ultimate outcome. Once traditional patterns are disrupted, relatively minor details have outsized effects. In the Bastille story, the outcome crucially depended on such contingencies as the King's unexpected recall of troops from Paris and the fickle mood of the crowd, which – after some vacillation – decided to free Bastille's garrison instead of executing them all. In these infernos of uncertainty, social laws, such as they are, can be overwhelmed by chance details.

II. The Subject within Neostructuralist Practice

In structural social science, individuals follow cultural scripts, fulfill pre-existing roles, internalize and obey norms – in short, function as cogs of a machine that creates and perpetuates the social order with little possibility of deviation. As Sherry Ortner observes, on this view "human thinking itself is simply an effect of, or a medium for, the pure play

of structure."[119] Social analysis is reduced to analysis of abstracted structures, which social actors could not hope to either perceive or alter, for they are themselves a product of systemic structuring.

But what are the appropriate forms of agency and subjectivity to be recovered? In the introduction I made a preliminary distinction between three flavors of "agency," though many others could potentially be defined. While the general concept is useful when counterposed to tangible pressures external to the physical person, it dissolves into ambiguity when used as a counterpart to "cognitive structure."[120] In this section I tease apart the different aspects of this philosophical notion to show that in each case the thrust of NPT is to preserve the dominance of sub-personal structures and routines without meaningfully connecting them to the phenomena in question. Although rendering the social realm as a mangle of practices *can* recover the subject "lost" in the "linguistic turn" of social theory, neostructuralist practice theory is unable to do so.

A. Irrelevant Conceptions of Agency

Not all meanings that fall under the umbrella term of "agency" are relevant to this inquiry. For example, one of its oldest incarnations in philosophic literature traces back to the distinction between brutes and rational beings, which locates agency in deliberative logical reasoning or forethought (which I will denote as $agency_0$) contrasted with emotion and whimsy. We find its modern form in the social sciences in the rational choice models, where individuals carry out logically rigorous calculation before choosing a course of action. By $agency_0$ I mean not the connection between deliberated reasons and the actions they inspire, but simply the capacity for conscious systematic reasoning about actions. Neither structural sociology nor NPT intersect with this facet of the human experience. Such reasoning simply takes place within a Saussurian *langue* and is oblivious to its foundation.

Another incarnation of "agency" prevalent in philosophic literature that we can spare further attention is volition or effective will (ultimately manifested in physical movement). This can be viewed from two angles. First, there is a metaphysical idea of an executive impulse which realizes existing plans and intentions, forming the bridge between thoughts, desires, reasons, and plans – and their enactment ($agency_1$). $Agency_1$ might be described as the active or actualized desire or intention.[121] Hannah Arendt traces this notion in the history of ideas down through Kant to Augustine's innovation on the inherited dichotomy of reason and passion ($agency_0$).[122] Standing outside mechanistic or causal processes of the natural world, it is the uncaused cause, origin of new causal chains in the world, a moment of pure spontaneity and contingency. Under this heading, I am isolating the *content-less* volitional impulse, setting aside the actual intentional

[119] Sherry Ortner, "Subjectivity and cultural critique", Anthropological Theory 5 (2005), 31–52, 32.
[120] To simplify matters, I am concerned here only with agency as a property of an individual human subject. Group or collective agency may be a useful construct (see Elisabeth Pacherie, "The Phenomenology of Joint Action: Self-Agency vs. Joint-Agency" in Axel Seemann (ed.), *Joint Attention: New Developments*, (Cambridge MA: MIT Press, 2011), but it is outside the scope of this study.
[121] Harry Frankfurt defines it as the desire that wins over other desires (Harry Frankfurt, *The Importance of What We Care About,* Cambridge, 1988: ch. 2).
[122] Hannah Arendt, *Life of the Mind, vol. 2: Willing* (Harcourt Brace Jovanovich, 1978, esp. ch. 2).

content of what is willed (one might liken this to the magnitude component of a geometric vector).

Agency$_1$ is again unproblematic for traditional sociology. To the extent that it is concerned with the synchronic relations between individuals and larger social groups, this notion is simply outside its scope, neither denied nor affirmed. In expanding its concern to the dynamic enactment of practice, NPT presupposes the executive impulse as a necessary instrument of the instantiation of practices (the other aspect of this instantiation – improvisation – will be addressed below).[123]

Second, volition also has a phenomenal aspect, the *sense* of agency, tightly bound with a sense of ownership of one's actions, which might be described as 'executive consciousness' or 'volitional subjectivity' (agency$_2$). The visceral sensation referenced is linguistically captured in utterances like "*I* am reading these words, and now *I* am turning the page," signaling that the phenomenal Self is in cognitive and behavioral control. Agency$_2$ is probably the most vulnerable to neuropsychological reductive explanation. For instance, numerous experiments have suggested the sense of ownership of actions arises from a congruence between one's intentions and performance, rather than indicating actual authorship.[124] Some accounts of practice theory – such as Bourdieu's – clearly take a position regarding the *veracity* of the experience of agency$_2$ and propose to tell an alternate history of the action it to which it is a precursor. However, neither traditional structural sociology nor neostructuralist practice theory contest the *phenomenological* reality of the sense of control of our thoughts, attention or behavior.

There are three distinct notions of human agency which a theory of semantic structures does deny individuals in its explanations: (1) acting solely on the basis of introspectively accessible reasons and intentions, (2) a capacity for consequential self-evaluation and appraisal of one's desires and values, and (3) free choice and creativity.[125] I will contend below that in each instance, NPT is unable to show how that capacity connects to semantic structures.

---

[123] *Logic*: 99-106; *CS*: 162.

[124] As Wegner and Wheatley summarize, to experience something an action as being willed, "the thought [of doing it] should occur before the action, be consistent with the action, and not be accompanied by other potential causes" (Daniel Wegner, and Thalia Wheatley, "Apparent mental causation: Sources of the experience of will" in *American Psychologist*, 1999 vol. 54(7), 480-492: 483; see also Daniel Wegner, *The Illusion of Conscious Will* (Cambridge, MA: The MIT Press, 2002 and Pacherie 2008. The logic implies this sense of agency can be hallucinated when a person falsely believes herself to be responsible for an action – which has been observed under experimental conditions and in clinical cases (Wegner and Wheatley 1999; Thomas Metzinger, *Being No One: The Self-Model Theory of Subjectivity* MIT Press, 2004: 469-473).

[125] I do not claim this classification to be either complete or authoritative (for another example see George Ainslie, "Can thought experiments prove anything about the will." Don Ross, ed. *Distributed cognition and the will: Individual volition and social context*. The MIT Press, 2007). Yet another account in philosophy of sociology decomposes agency according to its temporal orientation – past/present/future, corresponding to "iterative," "practical-evaluative," and "projective" capacities (Mustafa Emirbayer and Ann Mische. "What is agency?" *American journal of sociology* 103.4 (1998): 962-1023). My classification aims to select out distinct facets of the notion that intersect with practice theory, and if certain aspects are neglected, the conflicts demonstrated are sufficient to show the weakness of NPT.

B. Agency as Purposeful Action

The distinction in philosophy between action and behavior is usually ascribed to action's origin in a person's intentions. Although defining just what intentionality entails remains contentious, the notion is clearly not entirely vacuous. Making a goal during a soccer game may or not be intentional, but joining the game in the first place surely is. The proponents of intentional agency contend that the tangible antecedents of a given action leave it underdetermined – an action can only be explained by the purposes driving the actor, as understood and related by the actor.[126] In Thomas Nagel's words, "my reason for doing it is the *whole* reason why it happened, and no further explanation is either necessary or possible,"[127] though, of course, the purposiveness of an action admits of degree, from near-involuntary acts like blinking and sneezing, to absent-minded behavior, to behavior which is always done deliberately, like delivering a prepared speech. And part of the grammar of intentions is that they are in fact prospective. On this account ($agency_3$), intentions are not simply explanatory device projected onto a sequence of events. They connect desires and beliefs to actions and must be causally implicated in the actions because they rule out alternative explanations.[128] As Mark Bevir contends, if individuals

> "can act in novel ways *for reasons of their own* … [if] their intentionality is the source of their conduct; [if] they are capable of using and modifying language, discourse or traditions for *reasons of their own*, … [if] the content of their utterances … comes from the ways in which [speakers] replicate or develop [their] traditions and structures *in accord with their intentions*,"[129]

then explanations that do not reference those intentions can have little impact on outcomes. (Before proceeding it should be noted that not only does $agency_3$ not logically entail phenomenal volition ($agency_1$) – in that we can act purposefully, even experience action as purposeful, yet attribute the purpose to others – $agency_3$ is an alternative to pure voluntarism ($agency_0$) for the former locates causal efficacy not in the moment of decision itself but in its precursors).

Since theories of semantic structure explains social behavior by reference to supra-individuals structures or forces of which actors themselves are ignorant (e.g., scripts and internalized norms that prescribe actions), it is obviously incompatible with $agency_3$.[130] But to the extent that routines and dispositions of a neostructuralist practice shape perception and subconsciously recommend particular actions, they too render reasons and intentions functionally irrelevant. Although the strategies dictated by the habitus appear to be guided by anticipation of consequences, they are a kaleidoscopic

---

[126] In the past decades notable defenders of this position include Donald Davidson, Charles Taylor, John Searle, John McDowell, and Mark Bevir.

[127] Thomas Nagel, *The View from Nowhere* (Oxford, 1989): 115. For the canonical exposition of this argument see Donald Davidson, "Actions, Reasons, and Causes,'' *Journal of Philosophy* 60 (1963): 685–700.

[128] Charles Taylor**,** *The Explanation of Behaviour.* Humanities Press, 1964.

[129] Mark Bevir, "Governance and interpretation: what are the implications of postfoundationalism?" *Public Administration* 82.3 (2004): 605-625: 616-619, emphasis added.

[130] *CS*: 26.

reflection of past practices and objective conditions and are devoid of any future-oriented planning.[131] Thus there is some truth to Jeffrey Alexander's description of practice theory as operationalized structuralism and of Bourdieu's *habitus* in particular as a "Trojan horse for determinism."[132] He argues that the rigid link that Bourdieu posits between objective reality and the mental structures it generates allows no mediating space in which a true intentional subject could find expression. As noted above, Bourdieu repeatedly insists that the reasons actors give for their actions typically masquerade the true causes, which are grounded in their economic relations.[133] In other words, most of the inner dialogue that we go through before settling on a given action is epiphenomenal – the action is actually "selected" by the habitus, which makes us "will the inevitable."

Bourdieu illustrates how subconscious operation of the *habitus* is experienced phenomenally as intentions and emotional reasoning with an account of matchmaking in Kabylia society.[134] As in many traditional societies, families' ranking of potential spouses objectively corresponds to their patrimony/dowry. However, when questioned, the informants will explain their choice not in terms of such material factors, but by reference to the beauty and virtue of the person. Bourdieu argues this occurs because the habitus enforces a close correlation between the two sets of attributes. Heirs of great houses were encouraged to develop those virtues – so that the "tastes they developed tended to rule out misalliances… Socially approved love, love predisposed to succeed, is nothing other than that love of one's own social destiny that brings socially predestined partners together along the apparently random paths of free choice."[135] People feel they are following their heart or the call of duty even as "they conform to the economy of the system of constraints and demands of which their ethical and affective dispositions are the product." The functional calculus is covered up by emotional responses simultaneously produced by the *habitus*. As Bourdieu states baldly, "the fact of collective practice takes the place of intention and can have the effect of producing a subjective experience."[136] Contingent regularities in the world, once incorporated into the *habitus* come to appear completely natural and necessary, while structural imperatives of objective conditions are experienced as sentiment and duty. In short, the subjective experience, however phenomenally real to the person, is utterly irrelevant for purposes of sociological explanation, which only requires capturing the underlying logic of a practice.[137] T. J. Berard's characterization of the *habitus* as incorporating subjectivity as a "crucial but secondary dimension of social reproduction," appears apt.[138] Mental phenomena including inspirational ideas, emotional commitments, and, of course, reasons and goals are completely stripped of causal force.

---

[131] *Logic*: 62.
[132] Jeffrey C. Alexander, *Fin de siècle Social Theory: Relativism, Reduction, and the Problem of Reason*. Verso, 1995.
[133] E.g., *Outline*: 19.
[134] *Logic*: 158-161.
[135] Ibid.: 160.
[136] *Logic*: 258.
[137] For instance, Bourdieu diagrams the logic of the gift exchange practice as involving a sequence of two questions based on several simple principles which determine what an actor does. The actor is typically unaware of these choices and principles (*Logic*: 100).
[138] Tim J. Berard, "Rethinking practices and structures," *Philosophy of the Social Sciences* 35.2 (2005): 196-230, 205.

On a number of occasions Bourdieu recognizes that his characterization of the habitus appears very similar to Levi-Strauss's cognitive structures, which function as 'automatic laws.' To distinguish his own theory, he insists that the *habitus* presupposes improvisation and uncertainty in the moment of practice because the present is never identical to the past. The perception and understanding of a situation and the prescribed actions are never uniquely determined by the habitus and Bourdieu frequently emphasizes improvisation as both as a moment of agency and potential for transformation. The ritual of gift-giving that is found in many cultures, for instance, demands that each actor varies what he gives, injecting the possibility of failure if the gift is unrequited or is deemed inappropriate.[139]

Unfortunately, "improvisation" cannot carry the conceptual weight it is ascribed because it too is simply an expression of the *habitus.* Improvisation is an "*intentionless"* process, an automatic application of the practical sense of the habitus.[140] Careful to avoid any hint of arbitrary decisionism that might jeopardize his theoretical construct, Bourdieu writes that "the *habitus* is a spontaneity without consciousness or will, opposed as much to the mechanical necessity of things without history in mechanistic theories as it is to the reflexive freedom of subjects 'without inertia' in rationalistic theories." [141] The improvisation is already an accomplished fact when the inclinations dictated by the habitus are experienced by the actor – intentions are superfluous. Running a novel input through the Bayesian engine of the habitus yields a "novel" yet inevitable output. Thus it would be more accurate to say that the *habitus* "improvises" than that the actor does. In short, the uncertainty inherent in the application of the *habitus* stems from the nuances of the situation, rather than the possibility of intentional intervention by the actor.

A similar problem beguiles Sewell's description of actors' "creative" application of mental schemas of their culture or practice. In an article concerned specifically with the relationship between structure and agency (which explicitly examines the prior work of Giddens and Bourdieu), Sewell writes that "knowledge of a rule or a schema by definition means the ability to transpose or extend it – that is, to apply it creatively. If this is so, then agency, which I would define as entailing the capacity to extend schemas to new contexts, is inherent in the knowledge of cultural schemas that characterizes all minimally competent members of society."[142] The application of schemas in new ways is an instance of the "subjective risk" described above. But while Sewell intends this as an advance on Bourdieu's formulation, extension of schemas to new contexts is precisely the meaning of improvisation intended by Bourdieu and subject to the same critique with respect to agency$_3$: schema extension occurs automatically. If I know how to sit in a dinner chair, a bar stool may or may not appear to me as similarly sittable, but the evaluation of whether it does or not will (ordinarily) happen pre-consciously, and therefore, non-intentionally. Having a conscious intention to sit on the stool "as on a dinner chair" signifies a novice's *lack* of experience that precedes competence in a practice (though, of course, ingenuity understood in this way *can* be conscious, as during a reasoning process of applying an analytical framework to a new domain). Even if one's

---

[139] *Logic*: ch. 6.
[140] *Logic*: 57-8.
[141] *Outline*: 56.
[142] William H. Sewell Jr, "A Theory of Structure: Duality, Agency, and Transformation," *American Journal of Sociology* (1992): 1-29: 18.

extension of a schema is influenced by one's interests as Sewell indicates, that inflection is not conscious and thus cannot be viewed as an expression of agency$_3$ (on whether schema extension constitutes an expressions of agency understood as creativity, see below).

Sewell identifies another potential space for intentional agency in the adjudication between conflicting structures. Building on Giddens, he defines "structure" as a duality of mental schemas and physical resources. Then, departing from Bourdieu's totalizing class-wide *habitus*, Sewell characterizes culture as 'thinly coherent'[143], consisting of "multiple, contingent, and fractured," practice-specific structures.[144] Rival schemas can lay claim to the same resource, meaning that it may have multiple interpretations and can be embedded in distinct practices ("polysemy of resources").[145] A factory is viewed differently by the workers then by the managers. Voting can be a political statement, a moment of civic participation, an emotional release or a reason to take time off work. This re-interpretation of structure opens up fresh venues to theorize intentional agency and processes of change in practices (see below), as social actors have a choice of multiple intersecting schemas to draw on.

The downside of locating agency in the selective application of different schemas is the lack of basis on which the choice is made. The suggestion brings structure outside of the agent, freeing her mind from its shackles but, simultaneously, leaving her without guidance. The agents who actively choose the structure through which to engage with their world must indeed be acting "for reasons of their own," but in the process, they abandon practice. Unless this choice occurs subconsciously (in which case it reduces to Bourdieu-like improvisation), to the extent that "social actors are capable of applying a wide range of different and even incompatible schemas and have access to heterogeneous arrays of resources"[146] they do so by externalizing structure, such that the selection and application of schemas occurs without a systematic basis, marking a sharp swing from structuralism to radical subjectivism.

One might question at this point whether I have placed impossible demands on the notion of intentional agency, creating an unbridgeable gap between a naked will and deterministic structure. Actions appear to be either prescribed by practices or flow out of "one's own" reasons and intentions. One way out is to recognize that intentionality is not an all or nothing phenomenon. Helpful here is Giddens's characterization of action as a "continuous flow of conduct" rather than a series of distinct acts.[147] Embracing the later Wittgenstein, he argues that ascribing intentional agency to actors need not mean that they constantly focus their attention on the goal toward which their actions aim. The vast majority of our conduct is not *directly,* consciously motivated (or 'pre-meditated') but is guided by our practical consciousness in pursuit of latent intentions. Practical consciousness, according to Giddens, is populated by the implicit knowledge and

---

[143] Coherence is the weakest form of constraint on an agent, where the semantic system determines not the specific actions, but those that are ruled out (e.g. ungrammatical sentences), at least while the participant is engaged in the practice under normal conditions. One is of course free to construct ungrammatical and nonsensical sentences, but the social efficacy of these performances are severely curtailed and they must draw on other semantic fields to succeed.

[144] For his defense of a pluralist conception of structure see Sewell 2005: 205-13.

[145] Sewell 1992.

[146] Ibid.: 17.

[147] *CPST*: 40-3, 55-7; *NR*: 82-7.

interpretive schemes that "enable one to go on" within a practice (Giddens distinguishes practical consciousness from the Freudian unconscious by its relative penetrability to introspection).[148] Did I intend to turn the light on when I flipped the switch? Perhaps I had a flicker of conscious dismay at the darkness of the room that automatically (without conscious intermediate thoughts) triggered the knowledge that flipping the switch would brighten the room. But the impulse to turn on the light itself is dependent on circumstances and the practices one is engaged in – a security guard patrolling a building may welcome the darkness.

These types of enactments of a practice are not *outcomes* of distinct intentions, because intentions need not be understood as causally-potent conscious states. Instead, Giddens argues that with respect to ordinary activity, what we normally describe as intentions or reasons is raised to "discursive consciousness" when prompted by the queries of others or internal ruminations. These explanations are constructed retroactively by reflexive attention out of the contents of practical consciousness. In doing so, actors make the latent intentions "their own" as they formulate them discursively.[149] But such moments of pause, where the reflexive act of introspective attention fragments the flow of activity into discrete moments and articulates what was only implicit in them are anomalous breaks in the "*durée*" of experience. Giddens argues it is the ongoing process of "reflexive monitoring" whereby the actor is potentially able to explain his actions or take conscious control that is the hallmark of true intentional agency.[150]

As an account of intentional agency, "practical consciousness" is obviously only a beginning. Numerous questions remain: What is the ontology of "latent intentions"? What does it mean to reflexively monitor our actions – do we implicitly evaluate each action to decide whether to take conscious rein? Based on what? What is the epistemological relationship between discursive reasons and the inchoate intentions from which they are formed – how does one maintain the content of the other? Though important, these and other details remain unaddressed by Giddens, and I will return to examine them later.

---

[148] The three levels of consciousness are distinguished functionally, based on the modality of recall. Unifying memory and consciousness, he treats all psychological processes as types of 'recall': "discursive and practical consciousness refer to *psychological mechanisms of recall*, as utilized in contexts of action. Discursive consciousness connotes those forms of recall which the actor is able to express verbally. Practical consciousness involves recall to which the agent has access in the *durée* of action without being able to express what he or she thereby 'knows.'" The unconscious is not subject to recall at all, either because formed early in childhood through discarded memory mechanisms or is actively repressed (*CS*: 49).

[149] Along the same lines Pettit (2007) argues that in light of recent neuroscience studies that show we can easily be unaware of the true reasons of our actions, we should locate agency not in the ability to originate action but in the capacity to account for and take ownership of it (Philip Pettit, "Neuroscience and Agent-Control," Don Ross, ed. *Distributed Cognition and the Will: Individual Volition and Social Context* The MIT Press, 2007).

[150] *NR*: 89, *CS*: 256.

C. Agency as Self-construction

The second broad aspect of "agency" that appears to conflict with structural explanations extends agency$_3$ and encompasses the capacity of evaluating one's reasons and intentions (agency$_4$). We expect other human beings to be able to not only explain a particular action via intentions and reasons, but also to locate them in larger value systems compatible with their life narratives. Thus, for example, drawing on Harry Frankfurt's work, Charles Taylor singles out our evaluative capacity – the ability to formulate and act on second order desires – as the unique attribute of human agents. While first-order desires – for physical goods and pleasure, say – impinge on us willy-nilly, it is the mark of humanity to have attitudes about them, Taylor argues.[151] Without reducing agency to second-order desires he ventures that "an agent who could not evaluate desires at all would lack the minimum degree of reflectiveness which we associate with a human agent, and would also lack a crucial part of the background for what we describe as the exercise of will."[152] Michael Oakeshott, one of the early exponents of the importance of tacit practical knowledge, similarly argued that a person is truly the author of his actions only when his conduct fits into his narrative understanding of himself.[153] Indeed this view can be found in a wide range of philosophical schools, from Edmund Burke to J. S. Mill.[154]

Agency$_4$ is a complex capacity that requires extensive introspective abilities and considerable deliberative wherewithal**.** At the extreme, it demands all aspects of one's mind and temperament to be open to deliberate review. Thus it stands in sharpest conflict with structural explanations, which rely on supra-individual "mechanisms of signification" unknown to the actors whose behavior they explain[155] and who are oblivious to their own true motives and powerless to change them **–** even should they gain greater insight, say guided by a helpful social scientist.

With respect to agency$_4$, NPT makes little headway. Bourdieu's theory is clearly the most problematic in this regard since not only is the *habitus* conceptually segregated from and causally prior to phenomenal intentions, but its "categories of perception and appreciation" themselves are largely impervious to introspection and deliberate alteration. This intransigence stems from the embodied and tacit nature of the *habitus*. When the actor reflects on her actions (and thereby adopts a "quasi-theoretical posture") she can never capture more than a very partial representation of it; some elements of practice are not articulable, only enactable.

---

[151] It is not just the presence of 2nd order desires as such that matters (e.g. I want this ice-cream cone and this cake, but I wish I didn't since I do not have money for both), but that the evaluations occur against deeply felt standards of worth that reflect the larger narrative of the actor's life. Manifesting courage, for instance, requires such secondary evaluations – it "requires that we face danger, feel the fear which is appropriate, and nevertheless over-rule the impulse to flee because we in some sense dominate it, because we are moved by something higher than mere impulse or the mere desire to live." (Charles Taylor, *Philosophical Papers: Volume 1, Human Agency and Language*. Vol. 1. Cambridge University Press, 1985: n8)

[152] Ibid.: 28.

[153] Michael Oakeshott, *On Human Conduct.* Clarendon, 1991 [1975]: part I.

[154] David Rubinstein, *Culture, Structure and Agency: Toward a Truly Multidimensional Sociology.* (Thousand Oaks: Sage, 2001), 148.

[155] A point stated most emphatically in Clause Lévi-Strauss, *Mythologiques* Vol. 4. University of Chicago Press, 1990 [1964]. (See *CPST*: 20, Ortner 1984, Archer 1996: 42).

Although most extreme within Bourdieu's framework, it is a contention fundamental to the concept of practice – a proper defense of which is never spelled out within neostructuralist work – that even though the schemas that make up the implicit "logic" of the practice can be reconstructed by "generative models" (which also capture the logic of the objective conditions that a practice reflects), these models lose the improvisational richness and versatility of the competent performer because practice is necessarily imprecise, even if internally consistent.[156] Individual moves taught to beginners in dance or martial arts, grammar rules, principles of morality – these are all discrete approximations of a continuous flow of practice that falsely introduce greater precision and accuracy than exists in the lived activity to simplify its acquisition[157] (what is not spelled out, leaving this argument incomplete, is the ontology of this imprecise practical sense which would explain the inevitable failure of explicit rules; I address this in the next chapter). Channeling Oakeshott, Bourdieu argues that it is a mistake to regard these explicit formulations as norms *governing* a practice. Instead, they are merely crutches for learning a practice, and if taken too literally, a rule "is the obstacle *par excellence* to the construction of an adequate theory of practice."[158] As a result, the actual structures of a practice are inaccessible to the actor, and may not even be fully visible to the social scientist.

For Giddens, the body plays a smaller role and thus he views practical consciousness as more amenable to analysis. Since the partition between practical and discursive consciousness reflects not a different form or organizing principle of thought, but different level of attention and recall (c.f., note 69), theoretically, little prevents actors from giving an arbitrarily elaborated account of themselves. Thus Giddens insists that social agents are always "partially aware of the conditions of their behavior."[159] But he is quick to concede that "the penetration that this 'knowledgeability' allows is typically limited [by] the situated character of action; the degree to which tacit knowledge can be articulated in discourse; unconscious sources of motivation."[160] He does not claim the subject can *always* import or transcode content from practical to discursive consciousness, and there is strong psychological pressure to keep the mental routines of practical consciousness – and even more so the wants and anxieties of the unconscious – from rising to full awareness.[161]

There is also a deep conceptual problem in NPT accentuated by Giddens's separation of practical consciousness from the motivational structures that exist in discursive consciousness as articulated reasons, goals, and ideals, and in the unconscious as suppressed wants and impulses. Although the schemas that guide individuals within a practice do overlay normative and emotional tones on the way a situation is perceived, there is no mechanism by which higher-order desires and deliberation can influence perception and performance of practice generally, short of decisions to consciously restructure one's physical environment. Such theoretical insularity may accurately describe personal habits but cannot be true of real practices (see section IV below). As

---

[156] *Logic*: 100-107; CS: 23.
[157] Regarding rules in language, see Paul Ziff, *Semantic Analysis* Cornell University Press, 1967: ch. 1.
[158] *Ibid*.: 103.
[159] *CPST*: 144; *CS*: 90.
[160] Ibid.
[161] *CPST*: 120-8; *CS*: 54.

Richard Widick argues in regard to Bourdieu, the cognitive logic captured by the *habitus* usefully informs the analysis of the observed conduct in a practice, but it ignores the "energetic dimension of the person," the "self-understandings and doubt, idealization and mental discipline" that are part and parcel of engagement in any complex social activity.[162] The stock traders whom Widick studies draw on the mythology and narratives of the frontiersman and the 'self-made man' to *make sense* of their environment, what they do, and where they aim. The stimulus-response structure of the habitus offers little help in understanding conversations and self-interpretations of participants, even though those are shaped by practices. The Bourdieuan response that these narratives simply paper over the underlying cognitive logic rings hollow and flat-out denies agency4.

Widick's analysis applies to Giddens as well, who would say that when the traders appeal to such narratives in explaining themselves, they are constructing an explanation *ex post*, outside of the *durée* of the practice. The stories of "supertraders" which inspire Widick's informants constitute a reservoir of cultural material out of which they fashion reasons and intentions when prompted, but which are not active in the conduct of a practice, which remains driven by practical understandings. Goals, projects and values that real practices presuppose are excluded from practical consciousness. As Theodore Schatzki observes, practical consciousness alone "form[s] the omnipresent medium and outcome of actions and practices. Reasons and wants swing free of structure."[163] The separation also obscures how practical understandings shape the concepts employed in discursive reasoning. Because neostructuralist theorists do not investigate the substructure of practical knowledge (leaving it as 'virtual schemas' and 'dispositions') or how the subject engages this substructure in the performance of a practice, they are unable to connect that practical substructure to more semantically ramified motivational structures – webs of values, identities and ideals – implicated in practices.

D. Agency as Natality

Finally, the uniquely human capacity for truly original and novel action or 'natality', to use Hannah Arendt's expression, may appear to present the most difficult challenge for practice theory in general and NPT in particular. Arendt extends the word from its ordinary meaning of physical birth to highlight man's capacity to introduce novelty and new beginnings into the world – as a consequence of themselves being born into it.[164] The term accentuates the break between what is introduced into the world and "whatever may have happened before." Practices, on the other hand, are creatures of continuity, carrying the meanings and experience of the past into future uses. Ostensibly, spontaneity and novelty must thus be disruptions of practice, something foreign and external. I propose to consider natality as two related faculties: that of the capacity for

[162] Widick 2005: 209**.** Widick argues that in the 80s, realizing the limitations of strict cognitivism, Bourdieu moved toward psychoanalysis, with importation of terms like *illusio* and *libido* (e.g. in *Practical Reason*).
[163] Theodore R Schatzki, *Social Practices: A Wittgensteinian Approach to Human Activity and the Social*. Cambridge University Press, 1996: 147.
[164] Arendt, *The human condition*, 8-9, 176-178.

creativity and innovation ($agency_5$), and of Sartrian free choice ($agency_6$), which bridges the logical gap between available options and a particular choice.[165]

To take the latter first, the idea of unfettered choice can be reframed as the application of effective volition ($agency_0$) to a purely intellectual act, rendering the final decision through sheer force of will. This idea is most famously captured in Sartre's formulation of absolute existential choice (of course rooted in a very different philosophical tradition), but can also be discerned in disparate accounts such as those that treat culture as a library or "toolkit" of ideas, for instance Steven Pinker's argument that innovations emerge from individuals when they "muster their ingenuity" and create something in a way that doesn't admit of further explanation.[166] Most contemporary philosophers, especially those influenced by early Heidegger and later Wittgenstein, regard Sartre's extreme autonomy where each decision is made *ex nihilo* as implausible, an ontological chimera.[167] The very possibility of meaningful choice requires an engagement with the world, an entanglement that is *not* chosen, to avoid lapsing into pure randomness, they contend. The concept mistakes the invisibility of the cognitive background for its nonexistence. To see the subject as choosing *ex nihilo* is to quickly run into absurdity. As Charles Taylor observed regarding the choice of life paths presented by Sartre, "unless some options are more significant than others, the very idea of self-choice falls into triviality and hence incoherence. Self-choice as an ideal makes sense only because some *issues* are more significant than others."[168] Of course, we do make real choices within those frames of significance all the time, but the act of choosing itself dissolves into agency as volition.

The fact that the encumbrances on the self evolve over time points to the second aspect of natality – creativity or semantic innovation. I want to restrict the discussion to creativity within the conduct of social practices, setting aside, for example, artistic or scientific invention.[169] With respect to practice, semantic innovation means the introduction and propagation of new ways of making sense of something. This may be a new concept, a new way of using an existing tool or some other reorganization of prior practice. Structural frameworks from Saussure's *langue* to Parsons's systems of values

---

[165] John Searle characterizes this as the first gap in moving from reasons to action – "First, there is the gap of rational decision making, where you try to make up your mind what you are going to do. Here the gap is between the reasons for making up your mind, and the actual decision that you make. Second, there is a gap between the decision and the action. Just as the reasons for the decision were not causally sufficient to produce the decision, so the decision is not causally sufficient to produce the action. There comes the point, after you have made up your mind, when you actually have to do it. And once again, you cannot sit back and let the decision cause the action, any more than you can sit back and let the reasons cause the decision…" (quoted in Zhu, Jing. "Reclaiming volition: An alternative interpretation of Libet's experiment." *Journal of Consciousness Studies* 10.11 (2003): 61-77). The second gap corresponds to what I above call $agency_1$.

[166] Peter J. Richerson and Robert Boyd, *Not by Genes Alone: How Culture Transformed Human Evolution* (Chicago: University of Chicago Press, 2008), 49.

[167] See the discussion in *Logic*: ch. 2. It should be noted that even within *Being and Nothingness,* Sartre is equivocal on this point (Nik Farrell Fox, *The New Sartre: Explorations in Postmodernism* (London: Continuum, 2003). M**y** goal here is not to defend a particular interpretation of his work but to mark out a frequently referenced intellectual position.

[168] *Ethics of Authenticity* (1992: 39), quoted in Slingerland 2008: 7. C.f., *Logic*: 49-50.

[169] Such pursuits are themselves practices, but fairly unusual in that disruption and innovation are explicitly encouraged. Again, note the independence of these conceptions of agency. A person may conceivably be capable of unqualifiedly novel action and pure volition without having introspective insight, for instance.

obviated individual contributions. To the extent that analysis was synchronic, creativity – which implies change and therefore time – was literally uncognizable. In focusing on practices as enacted by real actors in real time, NPT can admit individuals as originators of novelty. As we saw, for Sewell such creativity inheres in the interstices of existing schemas and the possibility of their transposition to new contexts – which can generate a novel turn of phrase, a new technique or a different combination of resources in an existing practice. It can also be found in the alteration of schema semantics as actors bend them to their own purposes, as when personal rights, initially community-bound, are extrapolated to humanity as a whole. While I argued above this form of "creativity" is either not intentional in the traditional sense or occurs outside the conduct of practice as conceived here, applying existing schemas in new contexts and breaking apart assemblages of schemas to reconfigure the components in new ways *are* mechanisms of semantic and practical innovation. Neostructuralist practices are thus not incompatible with processes of change, but they are difficult to reconcile with creativity as traditionally understood (referring to intentional acts of individuals).

The more controversial implication of practice-based explanations with respect to agency$_5$ is not that their semantic structures are insufficiently generative but that they are too limiting, confining the individual to the familiar and derivative, and disallowing even the comprehension of novelty (when it is perceived). Structural explanations of course acknowledged that actors can occasionally go off script, fail to conform to social norms, and so on, but these constituted deviations and breakdowns of the theory, underscoring its limits. NPT is more flexible in this regard, because it does not posit a single static script within a practice, but even innovation by recombination and transposition is inherently restricted to the repertoire of semantic building blocks available in a practice at a particular time. In this sense, the neostructuralist practice concept inevitably limits actors and is incompatible with agency$_5$ understood as the possibility of "new meanings which lie beyond all established rules [… and] express an infinite range of ideas," i.e., complete freedom.[170]

III. Transformation and Change

The ability of NPT to incorporate some forms of innovation suggests that it may offer a superior vocabulary for theorizing social change than structural sociology. Since the latter conceived society as a monolithic, static object, it would remain unchanged until acted upon. Individual actors were seen as caught up in society's existing webs of meanings and their own understandings and improvisations were irrelevant to the analysis of the overall static system.[171] By focusing on the *process* of practice instead of its synchronic determinants, NPT obtains a new lens that transforms the dichotomy of change and stasis into one of change and *continuity*. Reproduction of structure is no longer assumed, it must be actively achieved over and over, a process that is naturally vulnerable to perturbations, captured in the concepts of subjective and objective risks above. The practical skills of a practice are not global knowledge systems that smoothly

[170] Mark Bevir, *The Logic of the History of Ideas* Cambridge University Press, 2002: 47 and ch. 5.
[171] Lisa Wedeen, "Conceptualizing Culture: Possibilities for Political Science." *American Political Science Review* 96.4 (2002): 713-728.

orchestrate the actions of collectivities but imprecise responses to fuzzily perceived external conditions, constantly renegotiated**.**

By substituting tacit and imprecise behavioral schemas that are under constant threat of divergence for static, reflexive semantic structure, practice theory precludes rigorous, model-based explanations in its domain. However, the constitutive schemas of a practice and their interaction patterns (within and between practices) need not be beyond analysis. The theory should be able to offer methods or a vocabulary with which to produce systematic, "ecological" accounts of internal and externally-driven change, even if they forgo monocausal explanations and universal *laws*.[172] Yet NPT is ultimately forced to rely on external events to be triggers of change and does not substantially address the process itself.[173] This is not accidental but stems directly from two of the theory's core suppositions.

The first reason NPT is forced to rely on external events to explain variation over time is the deep internalization of structures by individuals that largely puts them beyond introspective access. Thus, compared to other sociological frameworks where the units of analysis are more readily observed and altered (e.g., preferences and beliefs in rational choice), the cognitive constraints of a *habitus* in particular are quite recalcitrant. They are so resistant in fact, that to be purposefully altered they must first be externalized in a rupture between the habitus and objective conditions, which Bourdieu insists "cannot result from a simple awakening of consciousness; the transformation of dispositions cannot occur without a prior or concomitant transformation of the objective structures of which they are the product and which they can survive."[174] Giddens takes a similar view, offering mainly that 'critical phases' can play a role in transformation, allowing rapid spot welding of institutions that become resistant to change after the phase is over.[175]

Second, most work within NPT is biased towards a conception of structure that is grandiose in scale and internally rigid. Both Bourdieu and Giddens adopt structural sociology's treatment of society as a single whole rather than an ensemble of entities and processes. Bourdieu for example, when considering diachronic analysis explicitly, focuses on reproduction of the *social order*, and how various elements of the *habitus* (such as generational categories and marriage norms) contribute to that order.[176] He explicitly argues that in the societies encountered in his anthropological work, various aspects of social life fuse into a single system. Likewise, Giddens treats the question of structural change primarily as it applies to society as a whole, and considers it a function of other society-level factors such as uneven development of regions and 'de-routinization' of social life, which Giddens in turn connects with the level of "reflexivity" of a culture.[177]

This macroscopic and monolithic view of society, shared by much of the earlier work on cultural theory, obscures important internal divisions. For example, as in many practices, the physical arrangement of general assemblies in the Occupy movement was

---

[172] Sewell suggests paleontology as the scientific model for such accounts (Sewell 2005: 113).
[173] *CS*: 237; *Outline*: 122.
[174] Bourdieu 1998: 122; *Logic*: 62.
[175] *CPST*: 228.
[176] *Logic*: 193-6.
[177] *CPST:* 220-2.

not entirely in harmony with the mental schemas that organized it. While the flat seating of assemblies did underline the equality of participants, its auditorium-style formation implicitly advantaged facilitators and those towards the front, since they and their procedural motion gestures would be automatically seen by everyone else. This dissonance may have been attenuated by having the facilitators actively scan the audience for such motions and bring them to the attention of all. But even the mental schemas of the practice were not themselves mutually consistent (nor they need ever be), as evidenced by the continuous tension between a need for procedural efficiency and the goal of empowering the underprivileged and encouraging their self-expression (c.f. note 32 above). Such internal incongruities are difficult to capture within a single relatively fixed system such as the ones Bourdieu and Giddens describe.

Bourdieu moved to address this issue by introducing the notion of "field" as a circumscribed set of "objective conditions," a construct that becomes necessary when shifting attention from traditional "less differentiated" societies, where all members might be considered to experience a single set of "objective conditions," to more pluralist modern ones. Fields are sets of practices that revolve around a particular value ('capital' in Bourdieu's terminology) that automatically assigns power relations within the field: wealth in the economic field, prestige in the artistic and academic fields.[178] The capital at stake designates the limits of the field and the degree of its independence – as long as money cannot buy academic credentials or prestige, academia is an autonomous field reaching wherever academic prestige is sought after.[179] Activities in a distinct field would draw on fairly distinct mental schemas and dispositions, ostensibly relaxing the rigidity of the *habitus* construct. Whereas in a pre-modern society all fields are closely interrelated, a modern society harbors distinct political, economic, juridical, religious and artistic fields, among others. Modernization of society and concomitant social specialization has led to a splintering of fields, often with contradictory logics, and their differing dynamics could be an engine for diversification and transformation of

[178] There are obvious similarities with Walzer's notion of a sphere of social relations and MacIntyre's practices that I can't explore here. A key difference however is one of focus – whereas Walzer, for example, takes distribution of capital within a field as the central question, Bourdieu is interested in effects of particular distributions and the resulting power relations (Bourdieu and Wacquant 1992: 105). He is also less sanguine about the possibility of autonomy of fields (see next note).

[179] See *Logic of Practice* for an intuitive description of the early formulation of "field" (67). This picture is complicated by Bourdieu in later writing, where he comes to put greater emphasis on relations of domination between those with greater and lesser accumulations of capital. In *Invitation to Reflexive Sociology,* he defines it as "a network, or a configuration, of objective relations between positions. These positions are objectively defined, in their existence and in the determinations they impose upon their occupants, agents or institutions, by their present and potential situation (*situs*) in the structure of the distribution of species of power (or capital) whose possession commands access to the specific profits that are at stake in the field, as well as by their objective relation to other positions (domination, subordination, homology, etc)" (97). As Jeffrey Alexander (1995) argues, pointing to several of Bourdieu's writings in 70's and 80's, the initial aspiration for autonomy of fields is abandoned, and economic dominance of classes in society as a whole is seen to infect all other fields, such that all fields are imbedded "in a broader struggle between the social classes of late capitalist society" (161-4). Even if we constrain ourselves to the early (hypo-Marxist) Bourdieu, the insistence of homology between fields and between elements of habitus across fields limits their autonomy.

practices.[180] Calhoun (1993) contends that when fields are complex enough to require more extensive 'theoretical' (reflexive) thought, the shearing effects between different fields can create fertile conditions for their transformation.[181]

But positing such a dynamic between fields conflicts with the high degree of homology that Bourdieu insists binds the habitus of an entire class together. Calhoun suggests Bourdieu can safely relax this condition, that it is an encumbrance unnecessary to the rest of the theory. But the tight coupling of multiple domains by homologies stems from more than a bias or inconvenient predilection. Because the habitus is built out of homologies between conceptual and bodily schemas, rather than symbolic, propositional structures, it does not maintain internal topical or situational distinctions, and thus individuals face every situation by drawing indiscriminately on broad swathes of their past experience. Patterns within language, dress norms, forms of greeting, posture, etc., overlap and tie fields of a group together, precluding extensive drift between them. When subgroups of a society wall themselves off and their mutual contact substantially declines, creating genuinely different objective conditions, the members of each can develop a different habitus, much as their languages can over time diverge. But, of course, such segregation would also render impossible the collision of different structures that was hypothesized to be the engine of change.

Others attribute the rigidity of Bourdieu's approach to the ambiguous relation between the schemas of the *habitus* and practices and argue for rending apart the two concepts, reaping the theoretical advantages of practice while avoiding the complications of the *habitus*.[182] Unfortunately this is a doomed enterprise since practice has no autonomous existence in Bourdieu's work; its logic is entirely captured in the *habitus* and in its originating objective conditions. They are two sides of the same indivisible coin.

As a result, change remains an embarrassing externality for Bourdieu and for NPT more broadly. Relying on "critical phases" or "unsettled times" or "events" to explain change is unsatisfactory since the theory does not shed light on the processes within such periods, and since societies and practices obviously evolve a great deal outside of such rare disturbances. Even if, as Sewell puts it, "lumpiness, rather than smoothness, is the normal texture of historical temporality,"[183] studying the accumulating changes between such bursts of activity is crucial to understanding the ultimate outcomes. The reliance on such explanations is also methodologically problematic, as there is no clear criteria to be used to identify such periods. As Margaret Archer observes, these designations are largely baseless and post-hoc.[184] One need look no further than Sewell's definition of "event" as a "(1) a ramified sequence of occurrences that (2) is recognized as notable by contemporaries, and that (3) results in a durable transformation of structures."[185] But declaring that structures are shaped in the crucibles of events, and then defining events as times that see "durable transformation of structures" is at best unhelpful. One is also left

---

[180] Scott Lash, "Pierre Bourdieu: Cultural economy and Social Change" and Craig Calhoun, "Habitus, Field, and Capital: The Question of Historical Specificity," in Pierre Félix Bourdieu, et al., eds. *Bourdieu: Critical Perspectives*. University of Chicago Press, 1993.
[181] Calhoun 1993.
[182] Anthony King, "Thinking with Bourdieu against Bourdieu: A 'Practical' Critique of the Habitus" *Sociological Theory* 18.3 (2000): 417-433.
[183] Sewell 2005: 226.
[184] Margaret Archer 1996: 90.
[185] Sewell 2005: 228.

without guidance as to which transformations are relevant, and how much of a transformation is sufficient to constitute an "event." Put another way, while some historical moments fit these criteria, it is far from clear why transformation of structure should be limited to these moments only.

There are, however, seeds of a more insightful account of practices in Sewell's meso-level formulation of nimble and plural structures introduced above, which decomposes structure into transposable schemas and physical resources. Recall that under his description, schemas have relatively loose application criteria, which opens extensive possibilities of cross-pollination between previously unrelated schemas and resources – "a joke told to a new audience, an investment made in a new market… a cavalry attack made on a new terrain."[186] Distinct areas of social interaction and identity are rich with relatively independent schemas that furnish elements for potential recombination, in addition to the possibility – indeed prevalence – of co-existent, even conflicting, schemas associated with a particular resource that can also be rearranged in new ways. A job at a company can be interpreted both as a commodity with a set price (labor) or a means of livelihood (employment)[187]; a tax obligation may be a contribution for necessary programs or an unjustified imposition. The 'transposability' of schemas and polysemy of resources creates an immense reservoir of such potential intersections. While the meshing of practices in the real world and the co-presence of participants tends to inhibit this deviational tendency and streamline performance, it nevertheless constitutes a ready source of novelty that does not presuppose an external trigger. But Sewell does not inquire into the nature of the virtual schemas, which would allow him to proceed from identifying the possible circumstances of semantic transposition to studying how and why they actually occur. I will pick up this task in later chapters.

IV. Social Practices or Individual Habits: Turner's Challenge

From the point of view of social analysis, the most problematic aspect of structural explanations is the invisibility and ontological obscurity of the core explanatory mechanisms. One is left to decipher traces left by the inevitably imperceptible object of study like an archaeologist. Making practice the central theoretical construct has the methodological benefit of it being subject to direct observation and analysis. But there is a temptation to go too far in this direction and reduce social activity to a coherent set of purely individual habits whose interaction has the *appearance* of a carefully orchestrated performance without actually sharing any content beyond what is directly visible. This would make the explanatory variables conveniently available to be measured and recorded.[188] That is roughly the view of practice taken by Stephen Turner in response to Bourdieu and practice theory more generally when he argues that practices should be

[186] Sewell 2005: 141.

[187] This collision informs the punch line of the anecdote of a CEO who, when told of a plight of a shop worker laid off after 30 years of service, responded "he got paid didn't he?"

[188] The study of culture as text and other forms of textualism may be thus motivated (see Andreas Reckwitz, "Toward a Theory of Social Practices: A Development in Culturalist Theorizing" *European journal of social theory* 5.2 (2002): 243-263. Within psychology the impulse to exhaust the explananda of human behavior by what is directly observable dead-ended in behaviorism.

seen as nothing more than collections of individual habits tuned to produce coherent behavior.[189]

Is there more to a practice than habituation? Both habits (colloquially understood) and practices involve routinized responses to frequently encountered situations. For NPT, what sets practices apart is the generative and adaptive nature of the skills and dispositions that encode a practice. Whereas a habit refers to a fixed behavioral pattern, a permanent connection between a precisely specified trigger and a response[190], like eating a cookie after the daily two o'clock meeting, mastery of a practice – though it may encompass habits – allows for adaptation to changing contexts and situations in a social environment which is inherently variable.[191] Though highly individual in the sense that they give rise to perceptions and cognitive dispositions within individuals, practices actively shape how we encounter the world, not merely one's responses to it; metaphorically, neostructuralist practices might be thought of as habits of thought, perception and interaction.

Turner's point, however, is that the coherence of action among individuals performing a practice is an illusion, that they don't actually share anything of analytic worth. Doctors as a group may individually have the skills and experience to practice medicine, discuss their work and actually learn from each other, but there are no further hidden entities (structures) that they *share* apart from the similarity of behavior. The uniformity of behavior, he argues, "is literally superficial, a matter of external similarity, with internal or personal consequences that vary from individual to individual. Prayer, for example, has effects on those who pray. But the effects vary from person to person."[192] This claim cuts to the core of NPT because what sets it apart from the interpretivist practice theory that I describe in the next chapter is a commitment to shared entities that form the basis of individuals' perception, understanding, and behavior.

Turner's reasoning is simple.[193] While a sociological theory need not provide a detailed account of the underlying mechanisms it requires, to be plausible, it ought to be compatible with the scientific understanding of human psychology. For *habitus* to be a collectively shared entity rather than just a collection of individual habits – although Turner speaks specifically of Bourdieu, we can let *habitus* stand in for "structures" or "practice" – it must somehow be "downloaded" as a complete whole by each person, a demonstrably absurd proposition. The only alternative is for a practice to be acquired over time. But such a process would be influenced by individuals' extant perceptual and cognitive capacities – indeed Bourdieu insists on this – which means what one actually learns is conditioned by one's prior experience, knowledge, and skills.[194] No two

---

[189] Stephen Turner, *The Social Theory of Practices: Tradition, Tacit Knowledge, and Presuppositions*. University of Chicago Press, 1994.

[190] Charles Duhigg, *The Power of Habit: Why We Do What We Do in Life and Business* Random House Digital, Inc., 2012.

[191] Bourdieu and Wacquant 1992: 120.

[192] Turner 1994.

[193] Ibid.; Turner revisits his argument in Stephen Turner, *Brains/Practices/Relativism: Social Theory after Cognitive Science* Chicago University Press, 2002: ch. 3; "Practice then and now" *Human Affairs,* 17 (2007a), 111–125; and "Mirror Neurons and Practices: A Response to Lizardo." *Journal for the Theory of Social Behaviour,* 37 (2007b), 351-71.

[194] Existing research shows that learning indeed scaffolds on prior knowledge. See John D. Bransford, *Human Cognition: Learning, Understanding and Remembering*. Belmont, CA: Wadsworth,

individuals will have an identical learning history because experience "is simply too diverse, and too thin," and so the underlying "structural" content they acquire will never be quite the same. Homogenization of external behavior can be achieved despite the uniqueness of each individual's learning history. When learning dance for example, "[r]ecognizing and distinguishing dance moves is a matter of performance, and therefore training: one cannot perceive correctly without the training. And one can of course be trained in different ways to produce the same performance. So different learning histories can produce the same overt result."[195] Turner concedes that certain deliberately constructed practices like arithmetic – whose systematic rules are artificially constructed and explicitly learned – may potentially allow identical understanding among students. But in the cases of real world practice that are of interest to social sciences, he argues, the conceit that individuals engage in the "same" neostructuralist practice depends on an implausible transmission mechanism and should be rejected. The only plausible explanation, which does not requires any kind of "collective psychology, or any mysterious process of transmission or sharing"[196], is that there is nothing shared beyond response profiles – individuals learn to cope with their situation as best they can, in ways that are only outwardly similar. This objection effectively blocks the use of practice (or culture) as a unit of analysis. If social activities are simply an outcome of individual habits, skills or coping mechanisms which do not permit meaningful generalization, practice theory loses any claim to explanation.

NPT can offer a number of responses. To begin, Bourdieu maintains that individuals within a given "class"[197] encounter essentially the same "objective structures" (relations) throughout their lives: "a boss giving orders to a subordinate, colleagues discussing their pupils, academics taking part in a symposium."[198] On Bourdieu's view, the experience of being a small farmer or a midlevel bureaucrat is always characterized primarily by the logic inherent in that role, which dominates over local variations.[199] In other words, the social world is divided into groups of individuals (classes) who tend to have similar experiences across multiple domains – same conditions of production, same educational and material conditions – which ensures the uniformity of *habitus* within that group. Since this conditioning begins in the earliest childhood, the learning histories of members of a class are similar at the outset, and then have little opportunity to diverge in relevant respects.[200] Especially in preliterate societies, interpretive schemas are implicitly acquired from the arrangement of one's dwelling and similar basic environmental factors, which are invariably "organized according to a set of homologous oppositions – fire:

1979; and J. D. Bransford, A. Brown, and R. Cocking. "How People Learn: Mind, Brain, Experience, and School." *Washington, DC: National Research Council* (1999).

[195] Turner 2007b: 265.

[196] Turner 2007a: 8.

[197] As Brubaker (1985) observes, for Bourdieu "class divisions are defined not by differing relations to the means of production, but by differing conditions of existence" – a rather arbitrary designation (Brubaker, Rogers. "Rethinking classical theory: The sociological vision of Pierre Bourdieu." *Theory and society* 14 (1985): 745-775: 746.

[198] *Outline*: 81.

[199] *Logic*: 59-60. The habitus integrates "experiences statistically common to the members of the same class." In Bourdieu's system of thought this is more plausible than may at first appear because he accords high salience to certain narrow categories of experience like sexual division of labor. The empirical validity of the claim, however is highly questionable.

[200] *Outline*: 81.

water :: cooked : raw :: high : low :: light : shade :: day : night :: male: female…" – that form the earliest self-awareness.[201] These relationships maintain a uniform *habitus* within classes and preserve the logic of practices as new individuals enter society.

Bourdieu freely admits that despite all those influences, ultimately, individuals acquire their class's *habitus* via unique life trajectories such that "each individual system of dispositions is a structural variant of the others."[202] Individuals develop their own distinct "style" or "manner" of the group *habitus*. These metaphors suggest the *habitus* has two components: an invariant core and an outer layer which individuals are free to alter, allowing for "diversity within homogeneity." The same conclusion is implicit in the characterization of the *habitus* as propelled by a set "logic" which may be diagrammed by an outside observer yet, simultaneously, is dependent on unpredictable improvisation in the course of its realization (though, except in cases of misapplication, improvisation remains within the confines of that logic). On its face, this core-periphery distinction is entirely plausible. Consider accents of spoken languages. For this purpose (and simplifying for the sake of illustration) the "class" of speakers would be a nation, and regions and their respective accents and mannerisms would stand in for individual "styles" of the shared language. Typically, speakers from different regions have no problem understanding one another by penetrating the peculiarities of pronunciation of others to identify the underlying lexical units. Perhaps more to the point, linguists successfully treat languages as bounded entities for most purposes, despite regional and individual variation and different individual learning histories.[203] If this analogy is apt, individual differences do not rule out the existence of objective conditions and responses that are shared among a group and need not entail the decimation of practice into purely individual habits.

The argument so far aims merely at the *possibility* of a mental construct that is shared across a group. But do individuals in the real world have sufficient exposure to a stable set of similar objective conditions for them to extract the underlying logic from the myriad individual improvisations that they actually encounter? Whether, as Turner contends, in most cases experience "is simply too diverse, and too thin, for the individual to derive from it anything so determinate as a universal set of rules,"[204] depends on the details of the psychological mechanisms of adaptation to 'objective conditions' and transmission of tacit knowledge, which are absent from Bourdieu's account.

None of these theoretical considerations will matter in practice, however, unless the boundaries of classes can be feasibly identified. Bourdieu simply postulates that social cleavages are generally such that even though class boundaries are fuzzy, "each member of the same class is more likely than any member of another class to have been confronted with the situations most frequent for members of that class."[205] Any two individuals have the 'same' *habitus* if their "practices and works [are] immediately [and

---

[201] Ibid.: 90.
[202] *Logic*: 60.
[203] One can level Turner's objection against the notion of a shared language as well. Thus a skeptically inclined Wittgensteinian may hold that people's apparently successful communication does not entail similarity of their mental contents. For the sake of social analysis, I simply take it as an axiom that people can be fruitfully said to "share" a language.
[204] Turner 2002: 33.
[205] *Logic*: 60.

mutually] intelligible and foreseeable, and hence taken for granted."[206] But a functional definition of "class" does not address Turner's objection, since it is precisely the link between function and underlying substance that is in dispute. An approach is necessary that looks beyond successful interaction within a practice and either identifies the shared objective conditions or somehow directly compares the mental structures they purportedly engender. So while Turner's contention of logical impossibility of practices may be defused, because Bourdieu doesn't elaborate the nature of "dispositions" and mental "structures," and because he interprets mutual intelligibility as behavioral compatibility, a definitive rebuttal to Turner remains out of Bourdieu's reach.

Turner pushes against the limits of Bourdieu's (and certainly others') exposition of practice theory, but two additional considerations – if elaborated – could allay his concerns and move the theory forward. First, the *habitus* itself (again, standing in for the mental structures of a practice more generally) exercises a homogenizing or centripetal force that suppresses individual differences among competent performers, as outward behavior exerts internal normalizing pressure. Turner's contention is not that individuals develop distinct behaviors and skills that are mutually compatible, but rather that the 'surface' behavior and its structural substrate can be decoupled, such that a given behavioral pattern may be rooted in different cognitive and embodied knowledge. Bourdieu would deny this is possible because the patterns within all aspects of one's objective environment – gestures, posture, food, dress – reinforce each other, and they do so constantly in the course of daily activities, individual and collective (which is precisely what makes account for change over time so difficult).[207] The massive redundancies within practices fashion a "unitary lifestyle" with a "unitary set of choices of persons, goods, practices."[208] Because of the homologous relation between bodily and mental states, external similarity of behavior can *bring about* similarity of internal mental states. Additionally, the homogenization of the *habitus* is self-reinforcing. Because the habitus structures the very categories of perception, it has substantial inertia, and the more participants share, the still more alike they will become as the *habitus* selects reinforcing rather than divergent experiences and interpretations. The experiences of those in a single class are convergent.

Second, there may be mechanisms of direct transmission or apprehension of a practice that are unmediated by individual learning histories altogether, entirely defeating Turner's objection. Bourdieu suggests the *habitus* is in part acquired through direct mimesis of the "body hexis" – bodily postures and gestures (more on how this may be possible in chapter 4). This is aided by feedback learning, structured activities like children's games, rites, and rituals that are intended specifically for this purpose of acculturation, and explicit or guided training.[209] These mechanisms may generate sets of dispositions and skills that are effectively identical across participants not only superficially but deeply.

---

[206] Bourdieu 1998: 184.
[207] *Logic*: 58.
[208] Ibid.: 8.
[209] *Logic*: 74-5. In modern America this might be the games children play in pre-school – whether cowboys and Indians or dolls, passive learning (watching TV), working for reward (chores or eating unpleasant foods followed by tasty rewards), 'rules' about fairness and inclusion, self-discipline and impulse control, etc.

But within neostructuralist practice theory, these speculations remain just that. As Joseph Rouse remarks "if practice theorists could provide a clear causal basis (in the form of relatively non-mysterious processes such as imitation, training, and sanctioning) for the institution and maintenance of social or cultural patterns exercising normative authority over individual performances, this would seem to constitute genuine philosophical progress…."[210] Greater elaboration of the conceptual categories and psychological mechanisms involved would provide a more cogent answer to the two dilemmas of structuralism. It would also permit one to address important conceptual and methodological questions regarding the stance of practice *viz.* individuals and the ontological status of a practice, such as those raised by Turner:

> "If the relation is that [a practice] causes or produces or constitutes individual dispositions, *how* does it do so? Does every change in the big structure appear instantly in each individual? Is the whole evolving, telic, changeable thing present in each individual? If not, what is the relationship with individuals? Are they merely "affected" by practice? If each person's mastery of the collective thing is different because it is partial, and the collective thing is constantly changing, what is the relation between the changes in the individual and the changes in the practices?"[211]

Conclusion

This chapter identifies an early form of practice theory conceived in response to the conceptual difficulties of semantic structuralism. Neostructuralist practice theory imagines the social order to inhere not in a collection of roles or norms internalized by individuals or in invisible mechanisms that control individuals like puppets, but in the tapestry of social practices that vary in scope and depth and, as they settle, compose institutions and social systems. In the course of articulating the core properties of the neostructuralist "practice" construct, I argue that while it presents a rich soil for addressing the shortfalls in its theoretical predecessors, it remains incomplete in three important respects:

- The concepts of subjectivity and agency that practice theory is meant to reconcile with structural explanations – whether understood as purposeful action, a capacity for self-evaluation, or creativity and unconstrained choice – remain at odds with the automatically activated mental schemas of neostructuralist practices.

- NPT can explain transformation of practices only in rare moments, which arise due to external factors. Although it contains the foundation of a more comprehensive account that might explain how gradual change can occur through normal performance of practice, it lacks the language to elaborate it into an analytical methodology.

[210] Joseph Rouse, "Practice theory" *Handbook of the Philosophy of Science* 15 (2007): 509.
[211] Turner 2002: 19.

- Neostructuralist practice stands in an ambiguous relationship with respect to the individuals that enact them. Until the ontological status of practice is shored up, a number of methodological questions vital to actual empirical analysis remain unanswerable.

The following chapter proposes an alternative "interpretivist" concept of practice that focuses on the different ways that performances may give meaning to actors' environment and actions. I argue that recognizing practices as the primary vehicle of *intelligibility* constitutes a path toward reconciling a substantive and plausible form of subjectivity with systematic and analyzable explanations of social reality. I then explore alternative conceptions of "intelligibility" and evaluate how they address the other shortfalls of neostructuralist practice identified in this chapter.

Chapter 3: Interpretivist Practice Theory

I. Situated Agency

This chapter will focus on an "interpretivist" form of practice theory that emphasizes the meanings that performances create for actors. I will argue that these practical meanings are the key to reconciling agency and semantic structure. To explain how they may do so, I introduce the idea of "situated agency." For the purposes of this chapter, I am interested in the term as it has been used informally in philosophic writings[212] to signify that a person always acts within a historical, linguistic, and cultural context and always thinks "from" a particular set of beliefs or convictions, rather than from a hypothetical universal standpoint.[213] Situated agents are capable of creativity and novelty, they are able to locate their actions within larger life-narratives that are themselves subject to evaluation, and their actions are most aptly explained by their intentions and reasons. Crucially, however, these agentic powers derive from the cultural background in which agents are situated and that renders their world intelligible. On its own, situated agency is something of a "shell" concept – it captures the character of the interaction in a perspicuous way without attributing much substance to it. It is the task of this chapter and the next to analyze the situating relationship and formulate it in a way that addresses the theoretical challenges in social theory laid out previously.

My discussion of situated agency takes its departure from Mark Bevir's postfoundational historiography, where the term signifies that individuals' webs of beliefs derive from their cultural tradition but may then be altered by the individual as they choose. He intends the concept to hew a middle course between complete personal autonomy and the elision of the intentional subject carried out in different ways by post-structuralism.[214] Bevir rejects the possibility that individuals can "have experiences, reason, adopt beliefs, and act, outside all contexts."[215] Thus he would agree with Bourdieu that we are strongly influenced by our past. Bevir diverges from Bourdieu, however, in insisting that one's semantic context or tradition does not thereby determine

---

[212] That is to say, I am not concerned with the way the phrase appears in artificial intelligence or ecology literature, where the behavior of an organism is situated if it adjusts dynamically to its environment, rather than acting on a fixed internal program.

[213] C.f. Neera K. Badhwar, "Moral Agency, Commitment, and Impartiality," *Social Philosophy and Policy* 13 (1996): 1-26; and Roger Frie, "Situated Experience: Psychological Agency, Meaning, and Morality in Worldly Contexts," *International Journal of Psychoanalytic Self Psychology* 6.3 (2011): 340-351. Although neither work uses the specific term, the *loci classici* for this position in moral philosophy are Michael J. Sandel, *Liberalism and the Limits of Justice* (Cambridge: Cambridge University Press, 1998 [1981]); and Alasdair C. MacIntyre, *After Virtue* (Notre Dame: University of Notre Dame Press, 1984).

[214] The substance of the concept and its defense are presented in Mark Bevir, *The Logic of the History of Ideas* (Cambridge: Cambridge University Press, 1999): chapters 2, 5 and 6, but the term itself is used later (see Bevir and R. A. W. Rhodes, "Interpretation and its Others," *Australian Journal of Political Science* 40.2 (2005): 169-187).

[215] Mark Bevir and Roderick A.W. Rhodes, "Defending Interpretation," *European Political Science* 5.1 (2006): 69-83, 71-2.

or even limit one's actions or the new beliefs that one can come to hold. As language users, "we possess an ability to devise and to understand new words and new sentences so as to convey and grasp new meanings which lie beyond all established rules [… and] express an infinite range of ideas."[216] Situated agents, he insists, can act and reason in novel and unpredictable ways, in the process altering the tradition they inherit.

While others have attempted to articulate this type of contextual embedding of social actors[217] – indeed this was the aim of neostructuralist accounts – I find Bevir's formulation to be the most appropriate springboard for subsequent discussion for two reasons. First and foremost, he casts the influence exercised by context in terms of intelligibility. More specifically, the influence is a matter of interaction between "hermeneutic" and "semantic" meanings, which moves the discussion forward substantially, as I summarize at the end of section I.A. Second, his work broaches and treats the important issue of whether and how context limits individuals. Once again Bevir's formulation, rich with ambiguity, proves a fertile ground for further discussion.

A. Situated in Tradition

One ambiguity of Bevir's account is revealed if we press the distinction between agency and autonomy. While autonomy means reasoning or acting "outside all contexts," or "transcending social context," situated agency ostensibly entails "only the ability creatively to transform an inherited tradition, language, or discourse."[218] But Bevir also insists that situated agents are not limited by the tradition they inherit or the web of beliefs they happen to hold (see below). So what does it mean to transcend context if not to transform it in unlimited ways? What substantive actions or propositions does being "in the context of a discourse or tradition" actually exclude? If nothing meaningful is excluded, situated agency collapses into autonomy.[219]

The key to preserving this valuable conceptual distinction is to elaborate just how contexts and traditions "situate" agency. Bevir describes agents reasoning "against the background of" a tradition and being "influenced by tradition."[220] Elsewhere we are told

---

[216] Bevir, *The Logic of the History of Ideas,* 52; Bevir and Rhodes, "Interpretation and its Others."

[217] In particular, Seyla Benhabib articulates the idea of situated agency in similar (and similarly motivated) ways. She emphasizes that an individuals' actions thoughts and abilities only make sense within a particular context, yet reserves to them an ability to "challenge such situatedness" (see, for example, Seyla Benhabib, "Feminism and Postmodernism" in *Feminist Contentions* (New York: Routledge,1995) and Benhabib, Seyla. *Situating the self: Gender, community, and postmodernism in contemporary ethics*. Psychology Press, 1992).

[218] Mark Bevir, "Governance and Interpretation: What are the Implications of Postfoundationalism?" *Public Administration* 82.3 (2004): 605-625.

[219] Additionally, if one defines tradition as a set of initial propositional beliefs, as Bevir does (see below), autonomous individuals would operate with literally zero knowledge/beliefs. That is a straw man. The proponents of the position that Bevir calls autonomy would instead say that individuals are not *bound by* any of their background beliefs – and Bevir agrees with this.

[220] E.g., "individuals necessarily experience the world in ways that reflect the *influence* upon them of a social tradition, discourse, or regime of power" (Bevir, "Governance and Interpretation"); "Tradition is an *initial influence* on people. Its content will appear in their later performances only in so far as their situated agency has not led them to change it, where every part of it is in principle open to change." (Ibid); "Agency is situated *against the background of* traditions and dilemmas, both of which thus bear causal weight" (Mark Bevir and R. A. W. Rhodes, "Disaggregating Structures as an Agenda for Critical Realism: a Reply

that individuals acquire their early worldviews from the "ideational backgrounds" of traditions[221], and that tradition either consists of or gives rise to a web of beliefs, which are in turn understood as propositions "held to be true" by individuals.[222] These remarks invite two interpretations of the "influence" being exercised. On the one hand it appears to refer to a temporal relation, where tradition is one's initial web of beliefs or the background of ideas from which these initial beliefs are absorbed; individuals then modify their beliefs through independent reasoning (e.g., "Although tradition is unavoidable, it is so as a starting point, not as something that determines, or even limits, later performances." And, "we should conceive of a tradition primarily as an initial influence on people"[223]). This interpretation is supported by the definition of tradition as a historically connected lineage of a web of beliefs.[224] The impact of tradition is greatest initially and lessens over time as the individual drifts (or actively moves) away from her initial position.

The above interpretation finds considerable support in Bevir's writing, but it is quite clear that he also means the context to exercise its influence synchronically such that the meaning of a particular utterance or semantic token depends on its immediate context (e.g., "situated agency manifests itself in the diverse activity that might occur against the background of any particular context" [225]). In ordinary speech, the foreground-background relationship means that the foregrounded token acquires additional, auxiliary meaning from the background. Thus, if one was to say "against the background of the repeated atrocities committed by the government, its present concessions can only be interpreted as a stalling tactic," the word "concessions" is given a secondary interpretation by the historic context. But in this discussion, "context" plays a much more central role. Bevir distinguishes semantic meaning, which is a function of truth values, from the hermeneutic meaning – the illocutionary force, or the actual uses to which the speaker puts language – that inheres in actual utterances of individuals.[226] Unlike abstract semantic meaning, hermeneutic meaning is concrete and specific. The two are not equivalent because the conventional semantics of an utterance (this is the "context" that traditions provide) does not encompass irony or misdirection, for example, and so cannot possibly yield the meaning intended by the speaker in every instance. Furthermore, if hermeneutic meaning was fully reducible to a static (e.g., conventional) meaning, Bevir argues, there could be no possibility of its evolution; all actual uses would uniformly reference the same fixed meanings.

---

to McAnulla," *British Politics* 1.3 (2006): 397-403, 5); "To reject autonomy is to accept that traditions and discourses *influence* individuals (Bevir and Rhodes, "Interpretation and its Others," 173), italics added.

[221] Bevir and Rhodes, "Disaggregating Structure," 6; Bevir, *The Logic of the History of Ideas,* 200, ch. 6.

[222] Although Bevir denies equating beliefs with truth-value propositions (Mark Bevir, "The Construction and Use of the Past: A Reply to Critics," *History of the Human Sciences* 15.2 (2002): 126-133), he employs this definition on several occasions (Bevir, *The Logic of the History of Ideas*, 35, 129). More importantly, the notion of beliefs as truth-value propositions aligns with the claim that new beliefs must be reconciled with existing webs of beliefs -- i.e., their respective truth values must be reconciled (Mark Bevir, *Democratic Governance* (Princeton: Princeton University Press, 2010), 263.

[223] Bevir, *The Logic of the History of Ideas,* 201.

[224] Ibid, 207.

[225] Bevir, "Governance and Interpretation," 13.

[226] Bevir, *The Logic of the History of Ideas*, 27-38. Hermeneutic meaning approximates the notion of 'pragmatics' in linguistics, that is, how an utterance is overall understood or what it conveys.

On this synchronic interpretation of the influence relationship, individuals are the source of hermeneutic meanings, while tradition provides the stock of semantic meanings. Situated agency is manifested (with respect to language) in what we choose to do with our linguistic capacity. It also inheres in the creative and open-ended ability to extend and modify webs of beliefs and resolve inconsistencies within them. Bevir writes that a situated agent "can act in novel ways for reasons of their own so as to transform both themselves and this background… To say that people are situated agents is thus to say only that their intentionality is the source of their conduct; they are capable of using and modifying language, discourse or traditions for reasons of their own."[227] Reasons and intentions lie beyond the reach of tradition, and personal agency is unconstrained by one's web of beliefs.

There are reasons to be skeptical about the idea that hermeneutic meanings (intentions and reasons) are independent of tradition, "neither random nor fixed by logical relations or given experiences."[228] The dichotomy of a passive semantic system of propositional beliefs and *ex nihilo* causal intentions and reasons obscures the power that stores of semantic meaning like tradition and culture actually exercises on us. Andreas Reckwitz challenges this dichotomy and argues that a more plausible account of meaning is one where non-propositional conceptual "schemes" constitute the semantic system within which truth values may be assigned to propositional beliefs. That the earth revolves around the sun is a belief whose substantive meaning and validity can only be determined within a non-propositional understanding of planets and motion in space.[229] As Reckwitz points out, "both Thomas S. Kuhn's concept of the 'paradigm' and Michel Foucault's concept of 'episteme' provide examples of this scheme model."[230] Indeed, the point harkens back to Kant's critique of Humean epistemology: perceptions must be interpreted via extant (transcendental) categories – for something in the world to count as a 'chair' requires the idea of 'chair.' Practice theories (including NPT) presuppose just such a conception of a semantic background against which propositional beliefs and activity in the world are rendered intelligible.

To see why the scheme model of semantic meaning (which Reckwitz discusses under the rubric of "culture") is the more plausible one, we must for a moment consider the phenomenal experience of meaning or intelligibility itself. The concept is so fundamental that direct attempts at definition have little traction: "How things make sense is their meaning. Something's meaning, moreover, is what it is understood to be. … The

---

[227] Bevir, "Governance and Interpretation," 11.

[228] Ibid, 19.

[229] Reckwitz notes that, "A classification system such as that between form and substance is not 'believed' by the agents; it provides the basic distinctions on the grounds of which one proposition may be held to be true and another appear to be quite meaningless" (Andreas Reckwitz, "The Constraining Power of Cultural Schemes and the Liberal Model of Beliefs," *History of the Human Sciences* 15.2 (2002): 115-125, 120). See also Charles Taylor, "To Follow a Rule" in Craig J. Calhoun, Edward LiPuma, and Moishe Postone eds., *Bourdieu: Critical Perspectives* (Chicago: University of Chicago Press, 1993); and Charles Taylor, "Engaged Agency and Background in Heidegger" in Charles B. Guignon ed., *The Cambridge Companion to Heidegger* (Cambridge: Cambridge University Press, 1993), esp. p. 212. Bevir himself is aware of the need for such a distinction. For example, in arguing for ultimate commensurability of all cultures he distinguishes adopting others' worldview and accepting the truth of their beliefs, suggesting that the former involves something besides accepting the truth values of a set of beliefs (*The Logic of the History of Ideas,* 115).

[230] Reckwitz, "The Constraining Power of Cultural Schemes," 119.

meaning of an object, for instance, is what the object is understood to be (e.g., a tree, a star, or a house)."[231] An oblique situational description may be more effective. What I mean by 'intelligibility' is perhaps most evident in moments of its onset or "aspect change." Imagine hearing a repetitive noise, and suddenly recognizing it is a knock on the door; or staring at a stick drawing before realizing it is a letter; or recognizing the owner of a muffled voice.[232] In each instance, a level of meaning suddenly becomes available (I will be using the nouns *understanding* and *interpretation* – and presence of intelligibility – interchangeably, to denote the presence of such meaning within the phenomenal awareness of a subject[233]).[234] Intelligibility admits of gradients – sounds may be intelligible as speech, as speech in a known language, or as coherent and understood speech. Understanding of an utterance or any other semantic token may be muddied, mistaken, or absent altogether. Intelligibility can also be lost, creating a sense of disorientation – for instance as when one switches from a photographic view of a geographic location to a map, especially one drawn from a different viewpoint. The experience that I am pointing to is clearly pre-verbal and non-propositional, and thus cannot be *deduced* from a set of truth value propositions but only *recognized* within appropriate conceptual frames (I will return to the question of what phenomenal meaning and intelligibility *is* in the following chapter).

If we accept something like Reckwitz's semantic framework, where deeply embedded conceptual schemes render beliefs meaningful, it follows that the existing schemes of actors shape the way new beliefs are apprehended – new beliefs are not simply taken on as fixed units to be attached into one's existing web of beliefs. It also follows that all beliefs require an applicable scheme or set of schemes to be meaningful. A belief that does not fit into any of the actor's schemes will be perceived as gibberish or not at all. Even the apparently self-evident propositions of logic and arithmetic only make sense within the thin frames of arithmetic and logical operations that we take for granted.[235] In other words, hermeneutic meaning – the experience of intelligibility – only obtains *within* such semantic frames. Finally, I will postulate that there are no universal cultural schemes that could make sense of all possible beliefs (or a set of schemes possessed in the real world by a single person that would be universal in this sense). At the very least, even if such schemes are possible, humanity has yet to acquire them.

---

[231] Theodore R. Schatzki, *Social Practices: A Wittgensteinian Approach to Human Activity and the Social* (Cambridge: Cambridge University Press, 1996), 111.

[232] Wittgenstein cited the example of suddenly seeing the duck in the famous duck-rabbit picture. He characterized this change of aspect as "the expression of a new perception and at the same time of the perception's being unchanged" (Ludwig Wittgenstein, G.E.M. Anscombe tr., *Philosophical Investigations II* (Oxford: Oxford University Press, 1998 [1953]), 196), – quoted in Eddy M. Zemach, "Meaning, the Experience of Meaning and the Meaning-blind in Wittgenstein's Late Philosophy," *The Monist* 78.4 (1995): 480-495). All reference to 'Wittgenstein' in this chapter refer to Wittgenstein's later work – *Philosophical Investigations* and subsequent writings.

[233] Of course the two words generally have quite distinct meaning – one *understands* a formerly semantically empty stimulus (e.g., sound → speech); one *interprets* a stimulus that is already semantically laden into another form.

[234] I take this notion of phenomenal meaning to correspond to Galen Strawson's "meaning-experience" (Galen Strawson, *Mental reality* (Cambridge, MA: MIT Press, 1994), chapter 1).

[235] For Wittgenstein's argument for this point see Martin O'Neill, "Explaining 'The Hardness of the Logical Must': Wittgenstein on Grammar, Arbitrariness and Logical Necessity," *Philosophical Investigations* 24.1 (2001): 1-29.

The semantic model just described entails that the schemes possessed by a person at a particular moment designate a universe of beliefs that will be intelligible to them. In other words, only beliefs and hermeneutic meanings compatible with those schemes can be understood and entertained. These schemes are also essential for framing intentions and reasons – they *situate intentional agency by rendering certain intentions and reasons – but not others – intelligible.*[236] To intend to make a space rocket, or to explain my actions in this way, I must possess some conception of celestial mechanics; to strive for a democratic government I must have some conception of a "demos." Indeed, to return to Bevir's own example, to mean something ironically one must have familiarity with irony (though not necessarily a formulated definition of it). The claim is not that the schemes "cause" (fix or determine) the specific intentions that actors can or do have – the relation between the two is not characterized by a logic of causality but by a logic of intelligibility. Yet in rendering a person's world intelligible in a particular way, they exercise a deeper influence than Bevir allows. To say that agency is situated, then, is to say that agents inhabit a world made intelligible by their (cultural) schemes, such that certain courses of action or desires make sense while others do not. Recalling the other distinct facets of agency identified in the previous chapter, it also means that the values by which one appraises and guides one's life arise out of those schemes, and that human creativity also depends (in some complex way) on background meanings and is bounded by them.

B. Situated and Limited

Whether or not Bevir would accept my version of "situating" as it applies to intentional agency, he rejects the idea that personal creativity – the range of novel ideas individuals can invent and comprehend – can be limited by the semantic context of tradition. There are a number of ways to interpret his position on creative agency. First, we can distinguish between weak/"infinite" and strong/"limitless" forms, respectively. The weak form consists of the claim that the semantic background of individuals, for instance the conventions of one's society, does not confine them to derivative meanings and actions, either in the course of production of meanings or perception thereof.[237] Thus Bevir argues people are capable of 'novel uses' – they are not restricted to any finite set of possible actions and meanings that conventions prescribe. Individuals are able to invent and comprehend an infinite range of ideas, in the same sense that natural languages allow the construction and understanding of an infinite set of utterances, and mastery of a language does not allow an observer to definitively predict the utterances of another person. Creative agents exploit the ambiguity inherent in the semantic background. Thus I might describe a romantic relationship as "sizzling" without hearing quite this phrasing before (novel metaphor), or a surgeon may handle a never-before-seen pathology (improvisation). We are perpetually on the verge of an infinite number of such "novel"

[236] Whether this claim is true or not of course depends on what we mean by "intention" and "reason," which I consider below. But the only way to deny this claim is to insist that intentions are in some way self-interpreting. While semantic elements can be self-interpreting (i.e. icons and perceptual representations more generally), given the internal complexity of intentions and reasons, this is untenable. Without descending into an epistemological rabbit hole the implausibility of the claim places the burden of proof on the objector.

[237] Bevir, *Logic*, 47.

ideas and performances, but this infinite range of possibilities open to an actor should not be construed as limitless, as infinity may quite easily be limited. Borrowing Charles Taylor's example, allowing that a medieval Catholic can entertain a practically infinite set of ideas is fully consistent with saying that he could not fully grasp the modern conception of the sacred.[238] To use a mathematical analogy, there are infinitely many rational numbers between the boundaries of any two consecutive integers.

However Bevir appears to be advocating a strong, "limitless" form of creativity when he argues that tradition cannot impose limits on what individuals can express or think, that creative agency is absolutely unbounded.[239] Such a position threatens any hope of reconciling agency with structure, but I propose that – as was true in the case of the "influence" predicate above – the "limitless" predicate can be understood either synchronically or diachronically. That is, the semantic background does not limit what a person can do or say in any given instance, or, the present background does not limit on what he can do or say in the future. Even if Bevir appears to insist on the former meaning, his argument only supports the latter one that is more congenial to the current project.

Bevir contends that traditions cannot set limits on what individuals can think or do at any given moment such that the limit would be discernable either by the embedded individuals themselves or outside observers. But the thrust of Bevir's argument, as I understand it, is to dispute the idea that a person born in one era or "episteme" is for the remainder of her life bound to a particular version of that episteme, as when he writes of Foucault and Collingwood that "they suggest that the social contexts sets limits to the beliefs individuals can come to hold."[240] The argument proceeds from the assumption of universal commensurability of cultures: because societies face fairly similar conditions of life, elements of one culture are theoretically accessible to members of any other through those commonalities. Next, it is stipulated that if a culture places limits on what its members can do and think, such limits (to be "limits") must be identifiable by an outside observer; i.e., a member of society A can identify the concepts that the culture of society B lacks and is not able to grasp.[241] Finally, since the limits are not biological (which must be true given that society A has transcended them[242]), and different cultures are ultimately commensurable, we can describe the new idea to a member of society B in a way they could understand, transcending the supposed limitation. The upshot of the argument is that a 16th century French peasant, for example, would not for his entire life be constrained to operate within (an abstracted formulation of) "16th century French"

---

[238] Charles Taylor, "Interpretation and the Sciences of Man," *The Review of Metaphysics* 25.1 (1971): 3-51, 50.

[239] Bevir, *Logic*, ch. 5.

[240] Ibid, 198.

[241] Ibid, 197-199.

[242] It should be noted that Bevir's assumption about the uniformity of natural limits is flawed, because it overlooks what one might call socially-induced biological limits, as opposed to purely biological limits, such as maximum human running speed (Bevir's example). For instance, because of the human trajectory of neurophysiological development, the capacity to learn to distinguish the sounds of one's language is present during early childhood but is virtually unrecoverable later in life. Thus, for example, the complete learning of Swedish by non-native speakers is very challenging because of its unusually large set of vowels that are difficult to distinguish for non-native speakers. Furthermore, if current cognitive theories prove to be correct, certain conceptual categories may be so deeply embedded in childhood as to effectively constitute such socially-induced biological limits.

language and culture because both the society's semantic environment as a whole and the individual's understanding of it can change and assimilate new ideas over time.

If the above summary is correct, I don't believe it would be contrary to Bevir's account (or, if it is, we should part company with it) to say that *at a given point in time*, even if a person can entertain a literally infinite set of novel ideas, his semantic background (which bears a strong relation to the tradition in which he is embedded) makes certain other ideas or positions unthinkable. Our 16th century French peasant would be baffled at the modern notion of self-government and capitalist markets, no matter how carefully we explained it in the most fluent 16th century French. At least, that is, until he was able to enter our modern worldview through what would surely be a very lengthy and laborious process. In fact, Bevir acknowledges that comprehension of new beliefs is contingent on one's ability to link them to one's current belief system, necessarily limiting what new ideas may be accommodated.[243] For 19th century factory workers to recognize themselves as oppressed proletariat, that concept had to be present in their lexicon (and grounded in their daily life). Ideas that cannot be so related will not take root.

In short, we can recognize that individuals necessarily think from the cultural background they have in the moment *and* that any conceptual limits of this background can be transcended over time through outside influence and individuals' own efforts. One *could* teach Argentinean tango to an isolated culture with no knowledge of western dance. Nevertheless, for them to acquire this knowledge on their own would require many years of very specific historical development – it is not in the ambit of its members' creative agency to come up with those particular move patterns and performance standards out of thin air. The pace of organic innovation is one of steps, not leaps. The practical question is, of course, Can an outside observer discern the semantic background that an individual or a group have at a particular moment? Can synchronic limits ever be sufficiently ascertained for analytic purposes? This is an empirical question that can only be answered once the cognitive nature of the limits are examined (see next chapter).

The goal of this opening section has been to introduce and begin to flesh out the concept of "situated agency," a promising way to frame a solution to the guiding dilemmas of social theory. Hopefully it has made plausible three propositions: (1) human agency is situated in a non-propositional background of conceptual schemes that makes the experience of intelligibility possible (2) the semantic background in which the agent is thus situated is also what renders intentions, self-oriented value judgments, and novel ideas intelligible (3) this background necessarily limits what is thinkable at any particular time, although as the background changes, so does the field of what is possible. So what are these "schemes" and how do they render the world intelligible to agents?

The notions of situated agency and hermeneutic meaning fall within the broad tradition of interpretive social science that is committed to engagement with understandings of its subjects (essentially what I called "subjective individualism" in the opening chapter). This view – which can be traced to Dilthey's *Verstehen* approach through Gadamer's philosophical hermeneutics – has received its most extended and eloquent defense in the work of Charles Taylor.[244] Taylor argues that we always perceive our world and act in it against a background of inchoate understandings, in a process of

[243] Bevir, *Logic*, 235; Bevir, "Democratic Governance," 263.
[244] Nicholas H. Smith, *Charles Taylor: Meaning, morals and modernity* (Wiley-Blackwell, 2002), 120.

continually 'making sense.' What distinguishes human beings is not mere consciousness, but that things have meaning and significance for us.[245] Hence, to be at all credible, social science must engage these self-interpretations. Over his career, Taylor has offered three different foundations in which this intelligibility may be grounded.[246] These three forms largely exhaust the theories of hermeneutic, experienced meaning within 20th century Western philosophy, and constitute a reasonable starting point for investigating the nature of intelligibility. In the remainder of the dissertation, I will evaluate these three theories, starting with Taylor's articulation of each one.

The account that Taylor offered first emphasized the role that language plays in the interpretation and explanation of action given by actors themselves and external observers.[247] Taylor argued that such interpretations do not merely communicate but actually instantiate the hitherto amorphous latent intentions. Section II below evaluates whether self-interpretations can be an adequate vehicle of intelligibility as such. Another account that evolves in Taylor's work from the late 80's to early 90's emphasizes the role of practice and social custom.[248] I will discuss how this approach is developed within Theodore Schatzki's Wittgensteinian theory of practice in section III. Finally, Taylor has also explained meaning and understanding as intuitive, even visceral, deriving from the embodied nature of human agency.[249] This will serve as the gateway to my attempt to situate agency within embodied practices in chapter 4.

Admittedly, there is no principled reason for limiting the analysis to these three possibilities. Except for the fact that between them, language, activity in the world, and the bodily aspect of being in the world cover most spheres of the human condition and it is unclear what other possibilities remain. Of course, if none of the three possibilities proved an effective substrate of intelligibility, it would be reasonable to look elsewhere.

---

[245] Charles Taylor, "Cognitive Psychology" in *Human Agency and Language* (Cambridge: Cambridge University Press, 1985).

[246] See Smith op. cit. for a discussion of these three forms of explanation in Taylor's work.

[247] Taylor, "Interpretation and the Sciences of Man"; Charles Taylor, "What is Human Agency?" in *Human Agency and Language* (Cambridge: Cambridge University Press, 1985); Charles Taylor, "Theories of Meaning" in *Human Agency and Language* (Cambridge: Cambridge University Press, 1985).

[248] His view shifts towards an emphasis on the necessity of (political) practice for the social space (Charles Taylor, *Sources of the Self* (Cambridge: Harvard University Press, 1989); Charles Taylor, "Cross-purposes: the liberal-communitarian debate" in *Philosophical Arguments*. (Cambridge: Harvard University Press, 1995)).

[249] Charles Taylor, "To Follow a Rule"; Taylor, "Engaged Agency and Background in Heidegger"; Smith, *Charles Taylor*, ch. 1. How do the three forms of intelligibility hang together? Taylor does not see them as mutually exclusive, as he on several occasions puts forward all three within a single article (Taylor, "To Follow a Rule"; Taylor, "Interpretation"). What we articulate, always imperfectly and incompletely, is our embodied and practice-based understanding, which can be the basis for further, more refined articulation. The link between the latter two is largely sublimated in modern society, but is manifested clearly in more primitive societies – in the imposing physical attributes of personal power, or the violence and intricacy of initiation and other rituals, for instance.

II. Intelligibility as Articulation

On the historically dominant view, language straightforwardly represents states of affairs in the world; it is a passive means of communication.[250] But in Taylor's early writings, the process of articulation – which may be internal or spoken out loud – actually creates meaning that had not previously existed. Choosing a particular phrasing brings our heretofore incomplete understandings and pre-verbal impulses into the inter-subjective space where they acquire concrete form:

> "Now these articulations are not simply descriptions, if we mean by this characterizations of a fully independent object, that is, an object which is altered neither in what it is, nor in the degree or manner of its evidence to us by the description. In this way my characterization of this table as brown, or this line of mountains as jagged, is a simple description.
>
> On the contrary, articulations are attempts to formulate what is initially inchoate, or confused, or badly formulated. But this kind of formation or reformulation does not leave its object unchanged. To give certain articulation is to shape our sense of what we desire or what we hold important in a certain way."[251]

Putting a thought in language carves off a segment of reality – focusing on particular aspects of it and giving it an identity. Each successive query and answer or restatement in a conversation can refine what we are all about. A friend asks, "Why do you want to get married?" Did I have reasons before telling him? I may have carried on an internal conversation in which they received a substantial shape. Or I might have only felt them dimly. The language I have available to me – the linguistic corpus of my society to the extent I grasp it – molds my "inchoate" intentions into a communicable, concrete form, one that can be grasped by similarly situated persons. That is to say, one's language plays as large a role in the final product as the mental seeds that existed prior to the articulation, because particular words open us to experiences in a particular way. Language even gives contour to one's emotional life and deepest normative commitments, and so encountering new emotional vocabulary, say in a literary masterpiece, can make our psychic life – and not just our recounting of it – more sophisticated.[252] Take the sensation referenced by the Czech word *litost*, described by Milan Kundera as fusing shame and spite in a way that has no parallel in English (according to him): "Litost is a state of torment caused by a sudden insight into one's own miserable self… Litost works

---

[250] For a synopsis of the evolution from the early semiotics of the Stoics see Sten Ebbesen. "The Odyssey of Semantics from the Stoa to Buridan." In Achim Eschbach and Jürgen Trabant, eds., *History of semiotics*. Vol. 7 (John Benjamins Publishing, 1983): 67.

[251] Taylor, "What is Human Agency?" 36. Articulation brings something new into the world: "Think of the difference between articulating how you feel about someone and describing a scene involving that person." (Taylor, "Engaged Agency," 212-3; Taylor, "Theories of Meaning," 256-8). Compare this to the historically dominant representational view of language, where it merely transmits fixed packages of information.

[252] The importance of language comes out most strongly in Charles Taylor, "Self-Interpreting Animals" in *Human Agency and Language.* (Cambridge: Cambridge University Press, 1985), esp. p.65-69.

like a two-stroke motor. First comes a feeling of torment, then a desire for revenge. The goal of revenge is to make one's partner [(who is the cause of the shame)] look as miserable as oneself."[253] The scenario and the visceral torment can on some level be experienced by anyone, for it is a part of the human condition, but it enters our ken differently once the word and the concept behind it are in our lexicon.

John Searle makes what is at first glance an even stronger argument for the importance of language for meaning.[254] Like Taylor, he rejects the idea that language is necessary for thought *simpliciter*. A variety of intentional content such as categorizing objects in the world does not depend on language. Animals can form complex categories about their environment with features and relations between them and can associate and produce signals representing those features ("Danger!"). But Searle argues language *is* necessary for conceptual thought and complex meaning because – among other reasons – it allows arbitrary symbolic manipulation of semantic content. Such manipulation frees us from only representing existing states of the world ("rain!") and permits one to "intentionally construct many different representations of actual, possible, and even impossible states of affairs in the world."[255] Through this capacity we are able to construct and convey abstract concepts like rights, moral judgments fairness, reasons and obligations. We are also able to bring such rights, reasons, and obligations into existence simply via performative utterance (under proper conditions):

> "what we think of as private property, for example, involves a kind of standing speech act… affixed to an object. It says that the owner of this object has certain rights and duties, and other people, not owners of this object, do not have those rights or duties. … We create private property, money, government, marriage, and a thousand other phenomena by representing them as existing."[256]

Through these performative utterances and the related linguistic operations of "status functions," which attribute new properties to objects in particular situations (e.g., elevating particular pieces of paper to units of currency), language makes social reality as we know it possible.

Yet despite the power of words to define our experience and open new levels of complexity of social reality, language cannot be the substance of intelligibility we are seeking. With respect to Taylor's argument, we see that far from all consequential mental life ever finds verbal expression. Understanding can be evidenced simply by the ability to react to a situation or person in appropriate ways, say in dealing with a respected father figure, an insolent underling, or a romantic partner. Taylor himself admits our inchoate intentions and reasons may be virtually inarticulable: "express reason-giving has a limit and in the end must repose in another kind of understanding," an embodied or practical one. I might "draw on my sense of things" when explaining an

---

[253] Milan Kundera, *The Book of Laughter and Forgetting* (New York: Alfred A. Knopf, 1980), 121.

[254] As he puts it, "all of human institutional reality, and in that sense nearly all of human civilization, is created in its initial existence and maintained in its continued existence by a single, logico-linguistic operation"– the "status function declaration" (Searle, John. *Making the social world: The structure of human civilization*. Oxford University Press, 2010, 201; Searle, John R. *The construction of social reality* (Simon and Schuster, 1995).

[255] Ibid, 80.

[256] Ibid, 86.

aspect of my awareness, but I cannot put that *sense* into words any more than I might paint the arthritic pain in my knee: vision and pain are simply experiences of different modality, for most of us at least, and the translation can only be approximate. Likewise, aspects of life rooted in custom and routine, and especially in ritual, may be beyond the reach of articulation or even introspection.

Taylor recognizes this. He is not a neo-Saussurian or post-structuralist. He does not align with what Andreas Reckwitz calls "textualism"[257], where meaning originates in symbolic systems. Although at times he appears to argue that semantic elements draw their meaning solely through their contrast with other elements[258], the substance of his argument is that meaning is hermeneutic, that it is inextricable from its surrounding semantic web. He also recognizes that language is not itself the wellspring of meaning, but an arena where society converges on meanings – or, alternatively, it is an expression of its convergence on a set of intersubjective meanings.[259] This set of common meanings that language captures is not just a reference point common to the participants as individuals, but is an active rapport, a common vantage point from which they encounter the world. The power of language thus derives from its connection to the active engagement with the world by its carriers, or *praxis*. Writing about emotional concepts such as shame, Taylor notes, "to understand these concepts we have to be in on a certain experience, we have to understand a certain language, not just of words, but also a certain language of mutual action and communication, by which we blame, exhort, admire, esteem each other." [260] Even though by curating a space of meaning language dramatically expands the horizons of complexity and emotional nuance, it remains embedded in the practical situations of daily life.

Searle clearly stakes out a stronger position. For him *language* is more than simply a set of shared meanings of a society, even if the language in use at a particular time and place represents a set of conventions which anchors linguistic tokens to stable referents among a population.[261] Yet his argument follows the same trajectory, ultimately locating the roots of intelligibility in shared practices. Although the vast majority of social human experience is not intelligible without language, recall that it is not a prerequisite for all intentional content and intelligibility. A pre-linguistic consciousness has in-the-world categories derived from experience, to the extent that an animal is able to discriminate elements in its environment, along with properties and relations. This goes a long way to interpreting reality without reliance on a symbolic system that language provides.[262] More importantly, while language is a crucial ingredient for meaning, in Searle's account it derives not from language but from *conventions*. Consider Searle's hypothetical discussion of how a notion of "boundary" may come about:

---

[257] Reckwitz, Andreas. "Toward a Theory of Social Practices: A Development in Culturalist Theorizing." *European journal of social theory* 5.2 (2002): 243-263.
[258] Taylor, "Theories of Meaning," 230-1.
[259]Taylor, "Interpretation." In "Theories of Meaning" Taylor distinguishes a third constitutive function of language: it allows us to experience peculiarly human concerns such as moral standards, as well as judgments of importance regarding the behavior of others (e.g., determining if our annoyance at another's provocation should to rise to the level of indignation) (261).
[260] Ibid, 12-13.
[261] Ibid, 75-6.
[262] Searle, *Making the Social World*, 65-8.

> "[Imagine] a tribe that builds a wall around its cluster of huts, where the wall performs the function of restricting access in virtue of its physical structure because it is too high to climb over easily. We then imagine that the wall decays until nothing is left but a line of stones. But let us suppose that the inhabitants, as well as outsiders, continue to recognize the line of stones as having a certain status: a status that we could describe by saying it is a boundary. [… the line of stones then performs its function] not in virtue of its physical structure, but in virtue of the fact that there is a collective recognition or acceptance by the people involved, both inside and outside the line of stones, that the line has a certain status and performs its function only in virtue of the collective recognition or acceptance of that status. This is an example of a 'status function.'"[263]

With this status function in place, a member of the tribe can say, "this is our territory", "do not trespass," etc.[264] But notice that in this example the *content* of the status function arises from the extant practice. The meaning of the line of stones is tied to the behavior enforced by the original wall (although once instantiated in this way, other boundaries could be created just by declaration). It turns out that the allusion to an extant practice is not idiosyncratic to this specific example but pertains to status functions generally (though I will not further argue the point here). Thus the declaration "this is my house" may create a new institutional reality, but the ability to make such a pronouncement relies on a prior web of social conventions around property.

These conventions formally appear in Searle's model as "the Background" – "all those abilities, capacities, dispositions, ways of doing things, and general know-how that enable us to carry out our intentions and apply our intentional states generally."[265] As I understand it, it is this background that captures the conventions that imbue status functions with meaning. These social conventions – or practices – provide the semantic base for much of language and intentional content. Thus, at least on Taylor's and Searle's accounts, the basis of intelligibility we are looking for to situate agency is not language, but engagement in the world, under some description. For reasons adduced in the introductory chapter, I believe this activity is usefully parsed as a mesh of practices. The question posed at the conclusion of the previous section then becomes, What is the nature of practices and how do they render the world intelligible to agents?

---

[263] Ibid, 94.

[264] Crucial to Searle's narrative is that this status function additionally imposes "obligations" on those that accept it that might be articulated in their beliefs that it would be *wrong* to cross the boundary unless authorized. This move seems to me much more complex than Searle intimates. But it suffices for this discussion to consider the semantic force of the status function that instantiates the boundary itself.

[265] Ibid, 31.

III. Intelligibility through Practice: Schatzki's Social Practices

A. A Wittgensteinian Theory of Practice

Later in his career Taylor explicitly recognized the debt language owes to practice and the way understandings are "carried in patterns of appropriate action."[266] This sense of what is appropriate, in turn, is shaped by one's community. Taylor addresses how this occurs in the context of a discussion of Wittgenstein's comments on rule following.[267] He considers how we ought to interpret the passages in *Philosophical Investigations* where Wittgenstein writes "'how do I know [how to continue a pattern]?—If that means 'Have I reasons?' the answer is: my reasons will soon give out. And then I shall act, without reasons," and, elsewhere, "When I obey a rule, I do not choose. I obey the rule *blindly*."[268] Taylor offers two alternative explanations. The view he attributes to Saul Kripke (which aligns with an uncharitable interpretation of Bourdieu) is that no reasons can be proffered because the understanding of the rule is simply conditioned in a brute, reflex-like way. Understanding cashes out as a cascade of inferences which ultimately end in simple binary associations, the responses stamped upon us by society so that no justification is in principle possible.[269] And certainly Wittgenstein's corpus offers plenty of justification for this interpretation, especially his remarks characterizing learning as (rote) training.[270] At least early in childhood, he argues, we cannot learn otherwise, since the alternative method of explanation presupposes prior learning.

Taylor rejects this interpretation, contending that the sorts of rules Wittgenstein means are backed by a background of deep understandings, anchored in the shared forms of life and social custom that create the rule's "sense" of what is appropriate. Normally implicit, this sense of "standing use," developed within a framework of broader consensus of an actual community whose way of life is the building material for those rules, is potentially articulable.[271] Conversely, the community's way of life takes place against the background of certain "intersubjective" meanings: what is *not* normally the subject of negotiation is the idea of a negotiation itself, which must already be shared by the actors and rooted in forms of life.[272] Disagreement presupposes a base of meanings

---

[266] Taylor, "To Follow a Rule," 51.
[267] Ibid.
[268] Wittgenstein, *Philosophical Investigations* vol I, §§211, 217.
[269] Saul Kripke. *Wittgenstein on Rules and Private Language*. (Cambridge: Harvard University Press, 1982). For an application of this view to language see Paul Ziff, *Semantic analysis* (Ithaca: Cornell University Press, 1967).
[270] Wittgenstein, *Philosophical Investigations* vol I, §§199, 211, 217, 219 – on training see §§5, 6, 86, 209-11; Ludwig Wittgenstein, *Remarks on the Philosophy of Psychology*, ed. G.E.M. Anscombe and G.H. von Wright (Oxford: Oxford University Press, 1980), §§7, 327.
[271] Taylor, "To Follow a Rule," 54.
[272] Taylor, "Interpretation," 24; Taylor, "Self-Interpreting Animals." Of course Taylor's insistence on the notion of pre-existing agreement ought not be taken too rigidly. The precise outlines of what "legitimate argument" or "debate" or even "democracy" requires is invariably contested. One might say that this is so only at the margins, that everyone agrees pointing a gun is not a legitimate argument. But one might just as well say that while we agree on the broad outlines of these basic notions – that the gun lies outside the realm of legitimate debate – within the vast space between those borders, there is little shared understanding.

that are not contested. A sufficiently thick mesh of such meanings is what marks out the boundaries of each society.

Some of those I labeled neostructuralists share the recognition that practices encompass schemes of interpretation. Giddens in particular is quite cognizant of the importance of practices in anchoring language and meaning, connecting what is said and thought to the common reference point of communal life.[273] He acknowledges Wittgenstein's contribution in making that link, writing that "language is intrinsically involved with *that which has to be done:* the constitution of language as 'meaningful' is inseparable from the constitution of forms of social life as continuing practices."[274] But as mentioned in previous chapter, in separating practical and discursive consciousness, the meaning of practical consciousness appears disconnected from deliberative thought and conscious intentions. The subject of Giddens's analysis remains the patterns and habitual routines of social activity rather than the interpretations and experienced meanings that arises out of them.

In contrast to NPT, Theodore Schatzki's account of practice, grounded in Wittgenstein's practical conception of language and meaning, is centrally concerned with how ordinary daily activity gives rise to meanings and shapes actors' perceptions and the gamut of their responses.[275] As an added benefit, Schatzki explicitly uses the practice construct. There is a difference of historical vantage point and purpose between the writers of the previous chapter and Schatzki. He is a second generation theorist of practice, and treats it as a distinct method of social science explanation. But he inherits a great deal from his predecessors, at least in subject matter, and devotes considerable space and energy to positioning himself in relation to them.[276] Like Taylor, he sees social practices as constituting a background of understanding. But Taylor's notion of practice is a comparatively thin one: "any stable configuration of shared activity, whose shape is defined by a certain pattern of dos and don'ts," a definition similar to NPT especially vis-à-vis explicit representations of the practice: both would agree that the rules that articulate the pattern of "dos and don'ts" are secondary to the pattern itself and can only approximate it.[277] Schatzki goes further to offer a thick conception of practice that deliberately attempts to illuminate the underlying nature of intelligibility. His interpretive[278] theory of practice (or theory of interpretivist practice) spans three books

---

[273] Anthony Giddens, *Central Problems in Social Theory: Action, Structure and Contradictions in Social Analysis* (Berkeley: University of California Press, 1979), 33-6.

[274] Ibid, 4, 33-6; Anthony Giddens, *The Constitution of Society: Introduction of the Theory of Structuration*. (Berkeley: University of California Press, 1984), 32.

[275] The core of his account is most systematically laid out in *Social Practices*. Schatzki has since offered minor modifications to the terminology (Theodore Schatzki, *The Site of the Social: A Philosophical Exploration of the Constitution of Social Life and Change* (University Park: Pennsylvania State University Press, 2002); Theodore R. Schatzki, *The Timespace of Human Activity: On Performance, Society, and History as Indeterminate Teleological Events* (Lanham: Lexington Books, 2010); as well as a variety of articles), but the substantive theory has remained the same.

[276] Schatzki, *Social Practices,* ch. 5. He criticizes Bourdieu for folding the organization of practices into consciously inaccessible practical understanding and Giddens for leaving important cognitive elements like goals and projects outside of practices.

[277] Taylor, *Sources of the Self*, 204-7.

[278] As Bevir points out, "An interpretive approach is not alone in paying attention to meanings. It is distinctive because of the extent to which it privileges meanings as ways to grasp actions" (Bevir and Rhodes, "Defending Interpretation," 70).

and numerous articles and is widely recognized as the most thorough of contemporary accounts of practice. It is thus the optimal candidate to examine under the rubric of the second foundation of intelligibility.

According to Schatzki, practices render the world intelligible by cultivating a sense of familiarity with the situations where they are commonly performed.[279] "When a tree is understood as something to climb, for instance, it becomes a place at which climbing is intelligible… A place to X is a place where it is understood that X-ing occurs."[280] The interrelated meanings which practices in this way assign upon the elements of our environment come together to form our experience of reality. Schatzki argues that by extension, the meaning of an utterance ultimately derives from instances of its use. In fact, Schatzki takes practices to be the sole origin of the semantic dimension of both the social realm and subjective experience, ontologically prior to language.[281] That is, whatever internal mental states one wants to attribute to actors, the 'meaning' of a semantic token is reducible to actions and situational contexts associated with it. One's understanding of it is not just signaled by – but is equivalent to – the mastery of its use: knowing how to respond, how to go on. There are, of course, purely phenomenal correlates to this understanding, but they are simply not relevant to social analysis. This functional conception of meaning can be decomposed into two related claims in Wittgenstein's writings: that language is contextual and functional, and that the meaning of its elements permanently resides in actual instances of their use.

A functional and contextual conception of language treats words as situation-specific tools.[282] It stands in contrast to the representational theory of language and logical atomism, where individual words are labels for natural objects and sentences are interpreted by combining the meanings of its components, which have fixed and independent meaning. Wittgenstein offers an ontogenetic argument for this view. He reminds us that we begin learning language before we are able to comprehend the method of ostensive definition that appears to an adult to be the natural means of learning.[283] That is, to link "cat" to the furry object in front of us as a *label* to a referent, we have to understanding *pointing* as an expression of labeling, the furry object as what is being identified, and the relevant differences between that kind of object and others.[284]

---

[279] Schatzki writes, "Intelligibility [e.g. making sense of] has two basic dimensions: how the world makes sense and which actions make sense. Both dimensions are articulated through the organizations of practices" (Schatzki, *Social Practices*, 111).

[280] Ibid, 114-5.

[281] Ibid, 111.

[282] The concept of meaning as use can be traced at least to the Pragmatist school at the turn of the century, whose members discussed meaning as practical consequences of something (see Norbert Wiley, "Pragmatism and the Dialogical Self," *International Journal for Dialogical Science* 1 (2006): 5-21). The interactionist approach in sociology, originating most directly from the work of G.H. Mead, locates meaning specifically in the intended responses of others, i.e., from personal interaction between individuals (George H. Mead, "What Social Objects Must Psychology Presuppose?" *The Journal of Philosophy, Psychology and Scientific Methods* 7 (1910): 174-180). Unfortunately, Interactionism is notorious for being unsuitable for institutional and macro analysis (Clark McPhail and Cynthia Rexroat, "Mead vs. Blumer," *American Sociological Review* 44 (1979): 449-467).

[283] There is some experimental evidence for this. Lev Vygotsky argued based on his experimental research that we learn the syntax of speech before the syntax of thought. For more recent work, see for example John Brown et al, "Situated Cognition and the Culture of Learning," *Educational Researcher* 18 (1989): 32-42).

[284] Wittgenstein, *Philosophical Investigations,* §§1-7, 33-8.

Labeling and referencing is itself a language game that must be learned (before knowing the concept 'color' how can one be shown the color of an object? Not by contrasting two objects either, for the challenge is to separate the attribute in question from the object). We first learn words and phrases as signals, that is, purely as tools, rather than what they stand for or represent.[285]

Of course, one might object that as we mature, we discard this approach to language like so many baby teeth, replacing it with a representational form. Once we become sufficiently familiar with the structure of the world, we can derive the essences behind the words. But while acknowledging that much of language is used that way, Wittgenstein points to a number of other uses that persist in adulthood. There are many classes of utterances that do not have a signifying structure – exclamations, giving orders, metaphorical language[286]; some theorists have maintained that in fact all language is quasi-performative.[287] Furthermore, there are classes of words for which the association cannot be demonstrated and where no referents actually exist (such as mental phenomena, especially hypostatizations like intention and expectation). In all these cases, the meaning of the word is not something in the world. Although we come to develop explicit definitions for much of our vocabulary, not so in a variety of cases where we simply have a feel for when to use them.[288] Consider when it is appropriate to use "this" vs. "that" when pointing out an item – what are the spatial criteria underlying that choice? Such practical knowledge resists articulation.

The correct understanding of a semantic element, then, does not consist in the presence of a specific mental state or semantic structure in one's mind, but is evidenced in the same way it is acquired – in its use.[289] In an extended section in *Philosophical Investigations,* Wittgenstein considers words like 'reading', 'understanding', and the 'aha!' of grasping a mathematical formula and argues that these words cannot refer to mental states because there are no stable mental experiences for those words to correspond to – there is no *single* experience of reading a sentence.[290] In mathematics, one is *justified* in saying "now I know how to go on with this sequence" not when one

---

[285] Collapsing meaning into the *actions* signified strongly invites allegations of behaviorism (for an interesting defense Wittgenstein from the charge of behaviorism see Soren Overgaard, "Exposing the Conjuring Trick: Wittgenstein on Subjectivity," *Phenomenology and the Cognitive Sciences* 3 (2004): 263–286). Schatzki is well aware of this, and he strenuously qualifies his position: "In treating speech acts as behavioral performances, I mean only to stress that they, like nonlinguistic behaviors, are directly carried out bodily. … Nor would I interpret Wittgenstein's dictum, that the meaning of a word is in a large number of cases its use in the language, as implying that meaning is reducible to behavior. Still, Wittgenstein's remarks on speech acts emphasize bodily skills at the expense of cognitive abilities." (Schatzki, *Social Practices,* 1996).

[286] Wittgenstein, *Philosophical Investigations,* §23.

[287] Hanna Pitkin, *Wittgenstein and Justice* (Berkeley: University of California Press, 1972): 36-43.

[288] Wittgenstein, *Remarks* vol II, §944.

[289] This functional sense of understanding is obviously subject to powerful critique (at least in its crude form). One classic counter-argument is Searle's famous "Chinese Room" thought experiment, targeted specifically at the Turing test of artificial intelligence. Briefly, a non-Chinese speaker is locked in a room with a Chinese dictionary. He (Searle) communicates with the outside in Chinese using that dictionary, manifesting understanding of the language to the outside world, even though no such understanding is phenomenally experienced, suggesting that language competency is not a good indicator for presence of intelligence or understanding as we would recognize it. Needless to say, this is hardly a knock-down argument, though I will not deal with it further here.

[290] Wittgenstein, *Philosophical Investigations,* §§150-200.

thinks of some formula, whatever that means, but in actually continuing the series, or more generally (and vaguely), when the understanding has been demonstrated to one's peers.[291] The existence of the present participle of 'to know', as with many other psychological terms, belies the psychological reality. The proper meaning of this use of the word is most apparent when we speak of 'knowing' skills ("I know calculus"), which clearly refers to a state, not any kind of active process.

Another aspect of language that is neglected by the representational model is the importance of situational context (pragmatics) and the relationship between the situations of language use and its meaning. It ignores the fact that we are introduced to particular words *in* spoken sentences *in* specific situations, simultaneously with our first encountering the world.[292] Over time we learn how a word is used through inference from a built up stock of instances and their contexts. On the Wittgensteinian account, any rules or mental structures that we build up in this way are merely rules of thumb; they are distillations and approximations of those instances, rather than insights into universal laws of the language (unlike natural science experiments which are intended to evidence such laws), a fact covered up by the projected authority of dictionaries and grammar books. Such ostensive rules do not and cannot capture all uses of a word.[293] Hence Wittgenstein's argument for viewing grammar as the 'regularities of language,' rather than *rules* thereof. Although it may seem that we use the word 'marriage' based on a rule that dictates specific criteria for its application, we in fact do so based on implicitly sensed similarities of a situation to the uses we have seen before.

Wittgenstein challenges the received view of language as a static, abstract symbolic system with koans like "what time is it on the sun?" that illustrate the situational specificity of most words. Even nouns that ostensibly refer to tangible objects often presuppose a context, such as what is or going to be done *to it* (e.g., a 'cadaver' is a dead body used for teaching medicine (Hannah Pitkin's example), and 'weed' refers to any plant that doesn't belong where it is found). As Pitkin summarizes, "though sentences do not have meanings, they do have, or make, *sense*. Words do not make sense, though they may have, or be used in, various senses," and those senses are context-dependent.[294] The view of words as universally valid representations trades on an abstraction that we acquire long after first becoming acquainted with language; the fixed representations are always derivative. A whole category of vital linguistic elements take on meaning *only* in concrete uses – one obvious example is indexicals.[295]

Yet Wittgenstein's point is deeper than merely highlighting the importance of pragmatics to language use. He draws attention to the fuzzy and imprecise meanings of

---

[291] Wittgenstein, *Remarks* vol I, §87. Wittgenstein, *Philosophical Investigations,* §§149-151, 54. I think Wittgenstein overstates the point, for the state of knowing or understanding can at such times itself be an object of reflective thought.

[292] E.g., "what 'determining the length' means is not learned by learning what *length* and *determining* are; the meaning of the word 'length' is learnt by learning, among other things, what it is to determine length." (Wittgenstein, *Philosophical Investigations II*, 225).

[293] Schatzki, *Social Practices,* 49-50.

[294] Pitkin, *Wittgenstein*, 80; Wittgenstein, *Remarks* vol I, §245.

[295] As Thomas Nagel writes, "indexicals in general are untranslatable into objective terms, because they are used to refer to persons, things, places, and times from a particular position with in the world… It is elementary that one can't translate a statement whose truth depends on its context of utterance into one whose truth does not." (Thomas Nagel, *The View from Nowhere, (*Oxford: Oxford University Press, 1989), p. 59).

words that are like a superimposition of partial drawings that together give a complete but fuzzy picture. Even apparently basic words like apple, can prove challenging to define precisely, as when creative breeding generates new fruits that bear increasingly little similarity to the 'ordinary' apple ancestor. Something as protean as the word 'game,' Wittgenstein's famous example, is that much more difficult to handle.[296] He argues that a search for a single all-encompassing definition of the essence of 'game' is bound to come up short; all one can find are broad overlapping similarities between instances (board games, love games, war games, children's games). Of course, to be useful, there must be some implicit criteria by which competent language speakers can tell when to use the word, and which can be formulated arbitrarily precisely to include exactly a given set of instances. For 'game', a good first approximation (building on Johan Huizinga's[297]) might be something like "a non-serious activity that does not have an external purpose." Anthropological investigation might extensively refine it, but whatever definition we formulate, there is always a chance of encountering an instance where the definition fails to predict the judgment of competent language speakers, and where the speakers themselves may disagree amongst each other.

At the margins, such disagreements are chronic – most violent in regard to moral language, less conspicuous in other areas. For instance, where does the "foot" end? The potential significance of such mundane fuzziness of definition was humorously illustrated by recent a fight over a bill in the California legislature.[298] The contention was between podiatrists and orthopedic surgeons about whether the former should be granted authority to work on the ankle, with podiatrists claiming that as a part of the foot, the ankle is in their domain. Of course the dispute was driven by economic interest, but it could not have occurred if the word 'foot' had a fixed and precise definition.

Hanna Pitkin argues that akin to case law jurisprudence, where cases are always decided by reference to specific previous decisions, instances of use always remain primary to the heuristics that may be derived from them because unanticipated scenarios such as the ankle fight may call into question any given formulated definition.[299] Meaning is never too far removed from real world uses. It is true that among those persons who share a conceptual base, a new word can be defined while remaining at a purely symbolic level (without appealing to the underlying practices) – this is the process of using a dictionary; in mathematics, a formula is a compact way to transmit knowledge in this way. But in other cases, e.g., with a child, one can only show meaning via examples and practices which constitute it.[300] Ultimately, intelligibility derives from what Schatzki calls a "background of past bodily sayings," the corpus of experience – actual situations and uses of words & actions – that we have accumulated. Of course, instances of use must themselves be interpreted – that is where the hermeneutic circle comes to a close. The whole of a practice provides context for the intelligibility of its elements and constituent situations. A medical term or tool's meaning may be specific to

---

[296] Wittgenstein, *Philosophical Investigations,* §§66-7.

[297] Johan Huizinga, *Homo Ludens* (Boston: Beacon Press, 1955).

[298] The dispute was triggered by a growth in ankle injuries that made the area highly lucrative. A summary of the event can be found in Alan Rosenthal, *The Third House* (Washington: CQ Press, 2001), 27-9.

[299] Pitkin, *Wittgenstein*, ch. 3. Also see Michael Oakeshott's brilliant argument regarding the as case-based nature of morality in "Rationalism in Politics" (Michael Oakeshott, *Rationalism in Politics and Other Essays* (London: Methuen, 1962).

[300] Wittgenstein, *Philosophical Investigations,* §208.

a situation (hospital), but it also carries meaning as part of the larger medical practice. On this logic of practical hermeneutics, a dead language, for example, cannot be properly speaking resurrected, even if an anthropologist fully masters its grammar and vocabulary. It would only be a new version of the dead language unless the customs and ways of life in which it lived were also restored.

Incidentally, this functional account of meaning opens a new venue for semantic innovation. Schatzki gives little consideration to how practices may foster creativity, relegating it to larger than life visionaries whose perspectives "are not confined to but instead transcend particular disciplines and walks of life" and moments of particularly insightful introspection "that transcend or transforms extant ways of speaking and acting" (these are usually achieved by artists).[301] But if meaning reposes in actual situations, which can potentially preserve nuance of nearly infinitely-fine grain, there is a richer basis for creativity than that offered by the schema- and structure-based semantic account of NPT. Situational meaning would be akin to an analog image (e.g., a photograph on film), as opposed to its digital counterpart that carries a fixed amount of information. For example, because my understanding of what it is to be a dentist patient derives from the dentist appointments I have had in the past, that understanding encompasses all the minute aspects of the visits – not simply the treatment by the doctor, but the banter involved, his and the assistant's manner, questions to be asked or to leave unasked, etc. Although many of these details are quickly displaced from active memory, they need not be discarded altogether simply because they are not captured by the 'rules' or 'schemas' of dentist visits, constituting a rich soil for innovation with respect to dentists, medical visits, and other related notions.

To connect hermeneutic meaning thus defined to action, Schatzki borrows the notion of 'signifying' (*bedeuten*) from Heidegger. To say an action is signified in a particular instance is to say that it make sense to do that action, or, that it is *the* course of action to be done. Possible actions are thus one dimension of meaning that situations have. Signifying "focuses and channels the flow of unreflective action onto the performance of particular actions" through both understanding and attitude orientation.[302] Routine actions are prompted by 'signifying chains': a particular project (eating ice-cream) signifies a particular task (driving to store) that is incorporated into the (functional) understanding of the project. That task in turn signifies another (grabbing the keys), and so on (this is a logical, not necessarily a temporal process). Car keys are thus implicitly understood as a transportation enabling device because that is the link they occupy in some signifying chains. Signification also encompasses appropriate attitudes and motivations. Schatzki complements his account of practical understanding with a notion of 'teleoaffective structures' – "hierarchies of ends, tasks, projects, beliefs, emotions, moods, and the like" – which, together with practical understanding, hold practices

[301] Schatzki, *Social Practices,* 69.

[302] Ibid, 122. In this case, but curiously not elsewhere, Schatzki explicitly distinguishes reflectively-guided behavior from the flowing automatism of signification. But neither is it purely reflexive, for a reflex carries no meaning (Theodore R. Schatzki "The time of activity," *Continental Philosophy Review* 39.2 (2006): 155-182). Signification also structures affect, evoking an emotion or a sense of psychological investment. To return to Schatzki's example of the tree, it not only presents itself as a an object to be climbed, but also evokes the desire to do so, perhaps a resolve to resist the desire, and other related, more faintly impinging emotions.

together.[303] While a practice does not prescribe goals and affective states, it does set out a range of what is appropriate or acceptable when participating in it.

The flow of action guided by signifying chains is commonly unreflective. Schatzki implicitly borrows this premise from Hubert Dreyfus without further comment.[304] While conduct within a practice admits of mental states, these states are typically not concerned with planning the next action. In this, his conception of the acting subject is akin to that of NPT. However, the next action is not *selected* automatically as was essentially the case with Bourdieu's *habitus* and Sewell's schema templates (on which individuals could somehow improvise).[305] Signification "presents" various courses of action as available, plausible or attractive. Others are qualified as "ill-advised, potentially ruinous, disruptive, taxing, and more or less feasible." [306] Performance of a practice is not organized by a set of structures distributed among a group, however understood, but by the hermeneutic practical understanding shared by its members. There is no diagrammable "practical logic" underlying a practice, nor is there normally a single value around which an interpretivist practice is organized comparable to Bourdieu's "capital." A practice does not determine which of the possibilities a participant will pursue, it "prefigures" – constrains and enables – a field of possibilities. Actions or ideas to which no signifying chains connect within a practice are thus placed outside the realm of possibility. Thus, that a doctor is trained in western medicine portends a skeptical reaction to a new 'alternative' treatment method; more specifically, such a doctor will likely look for certain kinds of evidence to support claims of its efficacy. The practice element in this case is a method of evaluation of treatments and the expectations of "success." Of course, any particular doctor may do otherwise – she may have complemented her western training with study of alternative forms of treatment, she may have other reasons to put more faith in them, or she may just act on a whim. But if that doctor lived in the 17th century, for example, her deciding to evaluate a new treatment with what is today known as a double-blind study would be highly unlikely. This scenario is not impossible considered in the abstract, since the intuition behind double-blind studies seems today self-evident, but without a background knowledge that stresses randomization, "objective truth," and statistical significance, this intuition is out of reach.

Schatzki is careful to point out (as I did in section I) that this semantic limitation need not hold over time: "Something constrains if it excludes courses of action. For something to achieve this, it is not necessary that it be immune to change from the actors whose activity it supposedly constrains.... To prefigure activity, it is not necessary that something be immune from change by the actors whose activity it prefigures."[307] Alone or in concert with others, actors can develop and evolve their own and their community's understandings of a practice in open-ended ways. Like Sewell, Schatzki imagines this evolution taking place through mutations of understandings and the fertile tensions

[303] Schatzki, *Social Practices,* 99-102.
[304] Ibid, 119-121.
[305] For Schatzki's discussion of the *habitus* in this light see Ibid, 138-142.
[306] Schatzki, *Site of the Social*, 225-6.
[307] Ibid, 213-4.

between the understandings and teleoaffective orders of a single practice, as well as between multiple practices that overlap in their components.[308]

Also like the writers within NPT, Schatzki places considerable emphasis on external catalysts for explaining change. These can be technological innovation, political decrees (forced restructuring of existing practices), or changing social needs. As Ann Swidler points out, however, practices and culture are of academic interest because they are often *resistant* to changing social needs and technical conditions. What matters then is whether Schatzki's practice theory can more successfully illuminate how practices respond to external influences. Schatzki briefly entertains the suggestion of W. G. Runciman and Rom Harre who view practices as instrumentally oriented pursuits (in contrast to, for example, Bourdieu's teleologically enclosed fields), and propose that such cultural patterns thrive or decline through an evolutionary logic.[309] Practices that are most adaptive to the world conditions that prevail will thrive. Similarly, evolutionary pressure selects for the cognitive and physical resources that make a practice more adaptive in its context.

Beyond such general observations, Schatzki also makes use of his theoretical vocabulary to make substantive predictions. Generalizing from his historical account of a medicinal herb business in the 19th century, he observes that the skills and practical intelligibility of the participants' practices changed more rapidly than the teleoaffective structures.[310] This is intuitively plausible: if meanings are recouped entirely by the performances of practice – as opposed to additionally reposing in dispositions or schemas held by the actors – then they are completely vulnerable to subjective and objective risk. If the meaning of a physical resource like oil literally reduces to what can be done with it, the appearance of a new oil processing technology will thoroughly transform that meaning. Goals, projects and normative commitments presumably have greater inertia.[311] Yet although Schatzki's framework is hospitable to theorization of change, it offers few tools for its analysis (I pick up on the intuition of evolutionary change in the next chapter). Instead, as Reckwitz correctly judges, (and *pace* Schatzki's claims that incline toward explanation) Schatzki's theory of practice is best understood as a "heuristic device, a sensitizing 'framework' for empirical research in the social sciences [, that] opens up a certain way of seeing and analysing social phenomena."[312] It is in fact a "scheme" in Reckwitz's sense that allows us to make sense of some empirical statements but not others.

Still, in this capacity it is quite helpful for charting out the internal structure of social activity that can then be interrogated to more accurately analyze the underlying dynamic. In describing the practice of day trading, for example, Schatzki identifies these elements –

---

[308] Ibid, 236-42.
[309] Ibid.
[310] He does not, however, inquire why this occurred (Ibid, 241).
[311] These inferences are highly speculative. For example, Schatzki also proposes that the thinner ("dispersed") practices that are held together largely by the understanding of the practice (explaining, ordering, describing) are more liable to change than more complex ("integrative") practices. I think at the very least as strong a case can be mounted that because dispersed practices are so wide-spread, both in the sense of participant population and the range of activities that include them, the opposite is likely the case.
[312] Reckwitz, "Toward a Theory."

Actions: tracking stocks on computer monitors, studying history of stocks, buying/selling a stock

Doings and sayings: scanning a screen, reading a newspaper, typing on the keyboard

Practical understandings: the knowledge and skills behind doing the actions above

Explicit rules: ones that day traders impose on themselves (for example, limiting exposure to 200% of capital), those imposed by trading firms, and finally those imposed regulators.[313]

These elements, under different names, can mostly be found in the neostructuralist account of practice. But an interpretivist practice theory additionally studies how participants make sense of their engagement and how that intelligibility guides their actions. It connects their understandings to their motivations. In the case of day trading it is largely one of profit – but also a deeper sense of winning and self-worth that derives from successful performance, the ideals and personal narratives that Richard Widick found to be woefully absent from Bourdieu's account of practice (see chapter 2).

To show how an interpretivist practice might situate agency I return to the General Assembly sessions of the Occupy movement. Traditional commentators and political elites were famously frustrated with the occupiers' lack of demand and concrete proposals. But this apparent lack of focus was not the result of the movement being merely an outpouring of unfocused, nihilistic rebelliousness, as observers at times suggested. The lack of demands stemmed directly from the conviction (latent in the underlying dogma of the movement and explicit in the statements of many individual participants) that the goals they were seeking – universal inclusion, empowerment, social justice, and participatory democracy – could not be effectively "demanded" from the larger society but had to be enacted by the occupiers themselves. While NPT is useful in mapping out the practical understandings, physical know-how, explicit rules and norms, and the basic doings and sayings of the Occupy assemblies, it lacks a language to engage with the participants' self-understandings, values, and goals, and to connect them to the participants' actions. Most participants were driven not by instrumental teleology but by emotional commitments interlaced with moral reasoning ("it makes me feel bad when people are silenced"[314]).[315] The assemblies were organized to create a community, to demonstrate that "[people] are not alone in this world, that they are not isolated; that there are people who care, who are still open, who have a mind and a heart that is not disassociated."[316]

---

[313] Schatzki, *Site of the Social,* 163-4.

[314] "Occupy Wall Street: The General Assembly," October 1, 2011, video clip, accessed March 2013, YouTube, http://www.youtube.com/watch?v=odFygPMwbIM.

[315] Along these lines Schatzki contrasts child rearing which, like the GA, is primarily affect-driven, with Western cooking practices, which Schatzki characterizes as largely teleological (Schatzki, *Social Practices,* 101).

[316] One participant explained, "The assembly is the space that searches for commonalities among different workshops, to produce new common notions that would compose an expanded collective subject, not by

NPT is poorly equipped to recover these subjective meanings, which it would consider either altogether epiphenomenal or only partially revealed through conversation because they are by hypothesis not fully accessible to the conscious mind. It contains no mechanisms to connect practice and the affective commitments driving it. Even though its vocabulary includes "attitudes" and "dispositions," the underlying framework is one of routine and habit, which inevitably effaces subjective meaning and affect. Thus, for instance, NPT is hard-pressed to explain the dedication and resistance of the Occupiers in face of concerted physical resistance by the state. Its appeals to routine or inculcated structure are inadequate, especially in the early days of the movement before such routines could take hold. Interpretivist practice theory, on the other hand, can speak to how the goals of the assembly were infused into its conduct and the hermeneutic meanings it held for the participants. Through its lens, one can pose questions about a practice's internal dynamics, such as to what degree the practical understandings and teleology of the practice were concordant.

The importance of subjective meanings can be further illustrated by a comparison of the way opposition is expressed within the decision-making process employed by General Assemblies to the superficially similar parliamentary obstructionist tactic known today as the filibuster. Within GAs, decisions are made by consensus, meaning that a proposal cannot be approved as long as someone signals determined opposition to it ("blocks" it).[317] One would expect then that nothing outside of the trivial would ever pass assemblies of hundreds of participants, as any individual could arrest any proposal. Within the conduct of GAs however, there is a presumption of strong personal commitment attached to this move. By exercising a block, a participant is tacitly staking his membership on the defeat of the motion, signaling absolute disagreement. Participants are expected to block things only once or twice in their life, when they feel the proposal fundamentally endangers the principles of the group.[318] While this norm is explicit, it is not enforced – individuals do not have a limited number of blocks and are not forced to leave if their block is ultimately overruled.[319] There are thus no procedural safeguards against the abuse of the block, only tacit norms, yet these proved quite effective in the Occupy movement despite a large and highly fluid membership.

The history of the filibuster in the U.S. Senate is one of very different tacit norms. In the 19th century Senate this move was used to signal "the true intensity of opposition

---

majority principle but by keeping processes of empowerment of everyone directed towards expansion . . . This means producing norms, like defense of minority positions, norms that ensure the process continues its expansive trajectory" ("Occupy Wall Street"). Note the described interaction between consciously constructed norms and the processes that inculcate and strengthen them. Unlike norms of classical sociology, these motivational structures are incorporated into individuals' understanding of the world and themselves.

[317] In reality, such groups usually employ "modified" consensus, where blocks can be overridden by a near-unanimous vote.

[318] L. A. Kauffman, "The Theology of Consensus" in *Occupy!: Scenes from Occupied America*. Carla Blumenkranz, et al. eds., (London: Verso Books, 2011): 46-51; Lynne M. Woehrle, "Claims-making and consensus in collective group processes," *Research in Social Movements, Conflicts and Change* 24 (2002): 3-30.

[319] Indeed, the precise conditions for the appropriate exercise of the block were frequently the subject of heated debate (c.f., "Proposal from yoni," [n.d.] online discussion, accessed March 2013, New York City General Assembly, http://www.nycga.net/2011/12/proposal-for-1222-proposal-from-yoni/).

and importance of an issue to the obstructers."[320] Before the introduction of the cloture rule (allowing a supermajority to force an end to the obstruction), the filibuster was not a partisan tool. Even though ordinary business within the Senate was done by simple majority vote, individual senators had nearly as much power to enforce their objection to legislation as the consensus process grants to participants within the GAs. But over the course of the 20th century, the expectation of personal investment for the use of the filibuster largely fell away, leaving little effective restriction on its use, such that over the past several decades it has been routinely employed for short term political gain. This transformation illustrates that the explicit rules and practical understandings that comprise neostructuralist practices do not capture all of social activity. Even "dispositions" are not quite sufficient because in these cases they only make sense by reference to subjectively felt affective and normative commitments that NPT does not capture.

Nothing has yet been said about the actor who is the subject of practice-based intelligibility. As Schatzki notes, every social theory trades on at least an implicit understanding of mind. Most commonly this is a "representational theory of action," in which individuals' actions are *caused* by mental representations of the desired state of affairs or actions to be performed.[321] On the standard account, the combination of desires and needs with relevant (representational) beliefs – perhaps with the addition of "valuings"[322] – motivate and thereby cause action.[323] Social theories that invoke implicit values or norms in their explanations similarly assume mental representations to be causal entities. A substantial part of Schatzki's early work on practice theory is the description of an alternative Wittgensteinian social phenomenology, anchored in the functional and situational theory of meaning just presented. His insurgent account brings mind into the social space of the physical world. The following section examines this framework more closely. I then argue that his proposal is incompatible with his own notion of teleoaffective structures and cannot give a credible interpretation of intentional agency.

B. Schatzki's Account of Mind

Schatzki lays out an ostensibly Wittgensteinian conception of mind as "how things stand and are going for someone." Rather than the private realm of causally potent mental states, 'mind' is reinterpreted to refer to adverbial aspects of the flow of bodily activity, much in the way Giddens uses 'structure' as an adverbial property of a process (see chapter 2). Mind is the sum of properties and descriptions of a person's engagement in practices as experienced by the subject, while mental phenomena are "states of affairs" or

[320] Gregory J. Wawro and Eric Schickler, *Filibuster: Obstruction and Lawmaking in the U.S. Senate* (Princeton: Princeton University Press, 2013).
[321] Theodore R. Schatzki , "Practices and Actions A Wittgensteinian Critique of Bourdieu and Giddens" *Philosophy of the Social Sciences* 27.3 (1997): 283-308, 293-4.
[322] Bertram F. Malle, *How the Mind Explains Behavior: Folk Explanations, Meaning, and Social Interaction* (Cambridge: MIT Press, 2004).
[323] C.f. Donald Davidson, "Actions, Reasons, and Causes" *The Journal of Philosophy* 60.23 (1963): 685-700.

"conditions of life," rather than causal entities.[324] When we ask someone what he believes, we are asking him to "tell us something about his life, about what is going on or how things stand with him."[325] Schatzki contends that mental and physical phenomena are related aspects of the same ontological reality without being reducible to each other.[326] He writes, "life has, so to speak, two faces: a continuous behavioral one 'open to view' in the public world, and an intermittent 'inner' one accessible only to its possessor."[327] Mental events are but the obverse face of episodes in the world.

Schatzki considers two emotional states – joy and fear – as examples of what we ordinarily imagine to be fundamentally private experience. He argues this is a mistake, that joy does not designate any internal 'entity.' Outer and inner episodes make joy "present in the world, and there isn't anything more in the world to being joyful than these episodes."[328] There is no deeper substance to "joy" of which these episodes are an emanation. The word "joy" itself is an extension without reality – all that actually has meaning are phrases like "expressing joy", "looking joyful," etc. The practice of expressing joy is what gives sense to the noun, and at times gets us in trouble, when we mistakenly essentialize it. In a curious reversal of common speech, 'joy' becomes a derivative of 'joyfulness.' We *see* 'joyful' behavior and *attribute* joy to the person as the cause of the outward expression. Similarly, the notion of 'fear' as a concrete phenomenal state is derivative of having "appropriate feelings and [performing] appropriate behaviors." Most intimately, even the concept of pain is formed in the context of its experience *along with* pain-behavior. The two presume each other organically[329], and the very notion of hiding pain includes the possibility of confessing it. Indeed, if we met a person who could undergo visible injury without *any* indication of experiencing pain, not the slightest twitch of a facial muscle, we would suspect him of being one of those unfortunates who, through some pathology, cannot in fact experience pain, even if he adamantly claimed to feel it.

Likewise for cognitive states: "thinking is neither an accompaniment of speaking nor of any other process. This means that it is impossible to have the 'thought-process', for example, proceed unaccompanied."[330] "Thinking" is simply something that occurs alongside actual activities but cannot be isolated from them. Wittgenstein argued that even though there is a meaningful distinction between intentional and unintentional action, unlike bodily action verbs such as "running" or "speaking," mental words like "intending," "thinking," or "expecting" are hypostatizations and do not have meaning independent from the accompanying activities.[331] Actions we describe as intentional are

---

[324] "Conditions of life" are in turn "things standing or going someway for someone" (Schatzki, *Social Practices*, 34).

[325] Ibid, 39.

[326] Ibid, ch. 2. Similar Wittgensteinian accounts of mind can be found in Malcolm Budd, *Wittgenstein's Philosophy of Psychology*. (London: Routledge, 1989) and Stephen Mulhall, *On Being in the World: Wittgenstein and Heidegger on Seeing Aspects* (London: Routledge, 1993), ch.3.

[327] Ibid, 27.

[328] Ibid, 32-3.

[329] Wittgenstein, *Philosophical Investigations,* §281, Wittgenstein, *Remarks* vol I, §138.

[330] Wittgenstein, *Remarks,* vol I, §7.

[331] Ibid, §§7, 163, 224-5. Along similar lines, Wolfgang Prinz argues that intentionality is intrinsic to the perception of mental states, in the same way that a billiard ball that strikes another is understood to be the cause of the other's motion (Wolfgang Prinz, "How do we know about our own actions?" in Sabine

just those that are attended by certain inner conditions, and the casting of intentions as causes of our actions is something we do retrospectively in the course of explanation; only secondarily or metaphorically can we use the word prospectively ("I intend to kill him") or in describing a present mental state.[332] In short, to say that human beings are intentional agents is not to propose to tell causal stories about the goings on in the social domain but only to say that human beings take part in a certain language game unavailable to other creatures, a language game that involves attributions of responsibility and picking among alternative possibilities.

In presenting this account, Schatzki cautions against concluding that intentions and similar notions are fully reducible to their public appearance; indeed, cognitive states are often less noticeable externally than other conditions such as emotions. Their expression is often limited to the self-descriptions of the actor. This comports with Wittgenstein's view of the relation between internal states and externally visible behavior, at least as evidenced by his claim that outer phenomena (say expression of pain or appearance of reading) are a *criterion* for ascribing the relevant inner state to others.[333] Such criteria are defeasible: their appearance may be present without a corresponding inner state and vice versa. In regards to reading for instance, looking at a text and saying the written words is usually coincident with the mental correlates of reading, though one might be reciting the text from memory. Similarly, one may satisfy the criteria for being in pain without actually being so.[334] The 'criteria' relation allows that one has a unique experience of inner episodes without presuming a separate inner realm of entities that 'cause' the external visage.

However, Schatzki is staking out a more radical position. Even if Wittgenstein appears to relegate the private mental world to irrelevance (at the very least it is unknowable, and at worst 'nonsensical'[335]), he is best read as making a claim about language rather than mental ontology. While Wittgenstein argues certain *words* for mental phenomena have no distinct referents (e.g., intention, expectation), he does not deny the reality of mental phenomena; he is not an eliminativist.[336] His focus is

---

Maasen, Wolfgang Prinz, and Gerhard Roth eds., *Voluntary Action: Brains, Minds, and Sociality* (Oxford: Oxford University Press, 2003)

[332] Ibid, §§185-95, 776. This is why Wittgenstein writes that "the consciousness of lying is of the category of the consciousness of intention" – they are conditions that 'hold' (§781). A similar status is accorded to certain verbs like "expecting" (§442). Wittgenstein does not deny that one can have the *experience* of meaning or intending. The force of his argument is that when we ordinarily say "I meant to do X" or "I meant Y by saying Z" the word does not refer to an actual distinct experience or thought. Similarly, Wittgenstein argued that the very idea of mental causal entities is the result of the 'naturalistic' approach to subjectivity, the attempt to interpret it using the name-object schema of physical objects and their properties. Such misappropriation is the root of much philosophical confusion precisely because it introduces nonsensical questions like 'Is an experienced emotion a state (a set of properties of some*thing*)? Is it an 'entity'?).

[333] See Wittgenstein, *Philosophical Investigations,* §§159-61 for criteria as it applies to reading.

[334] Wittgenstein, *Remarks* vol I, §§143-6.

[335] Ibid, §215, vol II, §§6, 642, 643, 648.

[336] Wittgenstein is cognizant of the controversy of his position, posing the question explicitly "'Are you not really a behaviorist in disguise? Aren't you at bottom really saying that everything except human behavior is a fiction?'" to which he responds "If I do speak of a fiction, then it is of a *grammatical* fiction" (Wittgenstein, *Philosophical Investigations,* §307). His remarks readily invite such misinterpretation. For example, he writes "In what sense are my sensations *private*? - Well, only I can know whether I am really in pain; another person can only surmise it. – In one way this is wrong, and in another nonsense" (Ibid,

epistemological (so it may be accurate to call him an epistemological – if not an ontological – behaviorist, in that all we can know of others derives from their external conduct). Since language, above all else, serves a communicative function *between* persons, it cannot be of the same province as *internal* states which are by hypothesis indemonstrable. When Wittgenstein writes that inner phenomena are "grammatical fictions," he means that our language cannot capture them, cannot carry *that* meaning. There is no bridge to be built between the two domains – the most sincere soul confession would still take the form of public language. Something completely internal – the *sensation* of pain – cannot be shared but only evoked[337], and so the internal states cannot directly enter our language games of co-living.

The beetle in a box argument famously illustrates this point.[338] Suppose, Wittgenstein writes, everyone has a box that only she can look in, and we all call the contents of our own box "beetle." We know what our 'beetle' looks like, but not others'. The word 'beetle' then isn't used as the *name* of the contents because they will never enter the shared realm. Since the word is the only access to it, "the thing in the box has no place in the language-game at all… If we construe the grammar of the expression of sensation on the model of 'object and designation', the object drops out of consideration as irrelevant." Thus if mental experiences were purely private, words like 'pain' would have no content. Wittgenstein is mounting a *reductio* argument against Cartesianism: if mind and body are separate, if the former is an entirely private realm, it would be inaccessible and irrelevant to our public language. To have content, our psychological words – pain, love, conviction, depression - must refer to something not entirely inner, and in fact they come to take the place of instinctive reactions, like saying 'it hurts' instead of emitting a visceral cry of pain.[339] The outer manifestations are not "signs" or signals of inner processes, but rather part and parcel of publically present experiences.

Schatzki is not an eliminativist either, he does not claim that intentions are illusions or deny that there is an inner quality to them. But there is an oddness to his framing of mind as "expressed and articulated in bodily activity" and consisting of "psychological states of affairs" that are "manifested" or "signified." Ordinarily, the *something* that is manifested, expressed, articulated and signified is logically separate from its manifestation, expression, and articulation. The grammar of those terms presupposes a separation between appearance and reality, allowing us to distinguish a causally efficacious reality from its appearance. But going beyond Wittgenstein's position as I have characterized I there, Schatzki argues that in this case, there is nothing

---

§246). But the rest of the passage pertains to uses of the *word* 'to know' and 'to understand' – the key words which make the statement wrong or nonsense is not "only I" but "know." The mistake is to take it to mean that others do not usually know that I am in pain – for they typically do. He denies that the level of *certainty* is different – that one (typically) 'knows' it with more certainty. The statement is nonsense if we take "know" to be used in the same sense as that of knowing an external fact. The use of the same word obscures some of the difference between "I know I am in pain" and "I know he is in pain."

[337] Wittgenstein, *Remarks,* vol II, §703. For instance, we rarely question the unverifiable assumption that everyone experiences colors in the same way (Wittgenstein, *Philosophical Investigations,* §272). I think our current understanding of psychology undermines the unnecessary conservatism of these observations, with deep implications for practice theory – I address this below and in the next chapter.

[338] Wittgenstein, *Philosophical Investigations,* §§292-8. For a helpful elaboration see Mulhall, *On Being in the World,* ch. 3 and Overgaard, "Exposing the Conjuring Trick."

[339] Wittgenstein, *Philosophical Investigations,* §245; Wittgenstein, *Remarks* vol II, §§132-6, 288, 292, 347.

behind the appearance of mental phenomena, there are no 'entities behind them.'[340] In the mental domain, appearance *is* reality – one's mental condition is not separable from the knowledge of it. There is no private knowledge of a pain in the foot in addition to or separate from the sensation, one feels it directly in a way that logically precludes doubt because it is atomic.[341]

Reviewing his definition, Schatzki writes, "'mind' now comprises but a collection of conditions marked by ascriptional asymmetries," the asymmetries between views from the outside and from within[342], meaning that even though "inner" states *appear* differently to the subject and outside observers, that appearance is nevertheless all there is to reality, and so the subject's internal view is not categorically privileged. The significance of equating appearance and reality of inner episodes lies in the direct implication that mental states are not *distinct* entities and so cannot be considered "causes." Schatzki relies on this proposition to hold at bay strong forms of mentalism and structuralism where unseen cognitive structures dictate our subjective experience and actions. Furthermore, this claim means that intentions and reasons are not prior to the mesh of practices in which they are embedded, but instead acquire their meaning from them.

C. Critique 1: A Purely Social Phenomenology

The virtue of Schatzki's theory of interpretive practice is its robust account of the functional and pragmatic aspects of intelligibility that connects hermeneutic meaning to activity in the world. Practices thus are the sources and the storehouses of meaning. But intelligibility also involves a distinctly subjective, phenomenal, and embodied aspect. I will contend that the meanings of a practice are not fully recouped in 'doings and sayings', that they are also irreducibly effected in 'thinkings', especially if one aspires to construct an *interpretive* practice. Meaning is acquired and stored by a physically embodied human mind and this is not irrelevant. Extensive evidence now demonstrates that when practices and concepts are learned, they are integrated into a person's existing practical skills and conceptual vocabulary, which shapes both a person's understandings of the new practice and how it propagates between individuals. Regarding other phenomenal processes, such as intentionality and social interaction, Schatzki's account is even more incomplete. In particular, while I suggest Wittgenstein is a poor guide for exploring these elements, I argue Schatzki's account of the mind is even more problematic, ultimately sabotaging his defense of human agency in three ways. First, it leaves "teleoaffective structures," a key element of his model of practice, conceptually ungrounded. Second, his vision of sociality is misleading, for it ignores the contribution of the shared human embodiment to the subjective experience of sociality. Finally, his conception of intentionality is deeply unsatisfactory.

Schaztki's social phenomenology eliminates purposeful action under the normal definition. If intentions are not causal, action cannot in fact be goal-driven (though it may appear that way to the actor), for there is no mechanism by which the representation

[340] Schatzki, *Social Practices,* 28.
[341] This is too simple of a cognitive model; one can be afraid without realizing it in the moment, yet act afraid and realize the fear subsequently.
[342] Ibid, 41.

of the goal can guide it. Similarly, his account of mind deflates normative commitments which may be classified under teleoaffective structures, since, like intentions, they cannot properly speaking direct action. Additionally, a person cannot adjudicate between different desires according to higher order commitments, since such decisions would have causal implications for later action. This renders agency as self-evaluation ($agency_4$) incomprehensible.

Furthermore, Schatzki's explication of mind yields a distorted conception of social interaction that does not recognize the extensive shared embodiment that underpins it. Schatzki uncritically accepts Wittgenstein's assertion that because we lack direct access to the 'inner episodes' of others, we converge on the use of emotional terms through rote training.[343] It is certainly the case that socialization is essential in the formation of the complete person. This is even true of things as seemingly biologically fixed as arithmetic[344], color concepts[345] and emotional imagery.[346] But Schatzki further insists that our shared biology is relevant in the social context only when very young, when encountering someone so entirely foreign that we have no other shared frame of reference[347], or when making otherwise arbitrary choices (e.g., the use of abstract symbols).[348] He embraces Wittgenstein's contention that we grasp emotional terms *not* through empathy and comparative introspection, but simply through learned association in the social context, such as when he writes, "we do not learn the expression 'I feel depressed' in the circumstances that are characteristic of a particular bodily feeling. 'But depression, anger, is surely a particular feeling!' – What sort of proposition is that? Where is it used?"[349] When you say "I feel depressed," I don't have access to your experience, so the words are really just situationally appropriate behaviors. Similarly with pain: "If I say of myself that it is only from my own case that I know what the word 'pain' means – must I not say the same of other people too? And how can I generalize the *one* case so irresponsibly?"[350] Wittgenstein contends that unlike imagining our own pain when it is not there, imagining another's is no more possible than imagining an animal's, so rather than presuming anything about the psychology of others, language only makes use of what is publicly visible.[351] The apparent human physiological and behavioral commonalities are simply not relevant, at least to the use of language.

---

[343] Schatzki, *Social Practices*,52-3; Wittgenstein, *Philosophical Investigations,* §242, Wittgenstein, *Remarks* vol II, §§27-30.

[344] C.f. his point that if everyone thought 2+2=5, it would simply be a different calculating system (Wittgenstein, *Philosophical Investigations II*, §227).

[345] That non-basic color terms vary widely among languages is a common enough fact, but he suggests that there could be people who could conceive of 'reddish-green' in the way we can easily imagine 'reddish-yellow' (Wittgenstein, *Remarks* vol II, §§426-434).

[346] Wittgenstein, *Remarks* vol I, §§854-5.

[347] Wittgenstein, *Philosophical Investigations,* §206.

[348] In this way the use of an arrow for pointing is a convention rooted in the behavior of a physical arrow.

[349] Wittgenstein, *Remarks* vol I, §§135-6, 1063; also see James Klagge, "Wittgenstein and Neuroscience," *Synthese* 78 (1989): 319-343.

[350] Wittgenstein, *Philosophical Investigations,* §293 – he goes on at that point to introduce the beetle scenario described earlier; see also §302 and Wittgenstein, *Remarks* vol I, §1063.

[351] To be sure, Schatzki does acknowledge that to some extent, learning such concepts as pain occurs at the conjunction of the socially grounded language and personal sensations, where the word "pain" comes to replace a child's crying and holding the body part in pain; i.e., it is built on natural *reactions* (Schatzki, *Social Practices,* 62). But he contends this is quickly left behind as a child matures.

But should we accept Wittgenstein's reasoning? An equally common scenario of learning the word 'depressed' may be something like "I don't feel as good today. – Are you depressed? – What does that mean?" followed up by a series of descriptions (of pains, sensations, emotional *situations*) after which I will have a pretty good idea when to say "I feel depressed" *and* what it feels like, if the descriptions match recollections of my own past states. However "irresponsible" it may be to generalize from one's own experience, such generalization is intrinsic to social interaction. What gets lost in Schatzki's account is the significance of the particular feel of our bodies and the insight into others' state of mind we can achieve by imagining ourselves in their situation, given that the "conditions of life" we share include not only the external objective conditions, but also physiology and psychology, which we implicitly expect to produce similar experience. The process of social learning *begins* from the premise of commonality. We assume others share our perspective and phenomenology until we have reason to think differently. Ironically, Wittgenstein helps himself to this assumption in the discussion of aspect and experience of meaning in *The Remarks*. When he speaks of the yellowness of the letter 'e', or the 'familiar feeling of a word,' he relies on precisely this similarity of lived experience to evoke the specific subtle sensations in the reader. Recognizing this connection to others opens the way to a more authentic social phenomenology.

Finally, Schatzki's rendering intentions as non-causal observations of one's "inner episodes" does violence to the concept of intentional agency: asking someone their intention is fairly obviously not *just* inquiring "how things stand with him." Intentional agency, as discussed in the previous chapter, entails that the reasons that people cite for their action are the "causes" of those action, as much as the word can be applied to the psychological realm. The particular explanation we give after the fact may be constructed in response to the prompt, but it has to correspond to some prior sense of what is to be achieved. To characterize intentions otherwise is to abandon the language game and deny intentional agency. While the representation of the expected outcome toward which the intention is directed and even the sense of being "committed" to carry out the action specified may be described as reportable "conditions" (for both can persist outside of conscious attention), left out is the moment when the intention is actively formed (specifically, $agency_1$) which sets its content, though this may be a slow, even subconscious process.[352] This passive account also cannot explain why a person remains committed to the formed intention. As if in a dream, one knows that he is about to do X without knowing why.

Instead of intentions, Schatzki attributes causality to neurophysiology, "causally efficacious bodily states and pathways."[353] Thus, in the performance of a practice,

[352] This observation once again reveals the limits of the distinctions made in the previous chapter, where intentional agency ($agency_3$) incorporates the executive impulses that first establishes the intention ($agency_1$).

[353] Schatzki, *Social Practices*, 33. One could argue that the notion of causality simply cannot be applied to the psychological domain. I am skeptical of this claim. Mental causes are of course always partial – just as are causes in the physical domain – but they may nevertheless constitute the proximate cause of an action (here I am inclined to agree with Taylor's reasoning in Charles Taylor, "Explaining Action," *Inquiry* 13.1-4 (1970): 54-89). The distinction between mental and physical causality appears to be one of degree of complexity and transparency than one of kind. If we reject Cartesian metaphysics, it is hard to see whence a compelling argument to the contrary can be marshalled. In any case, the preceding chapter makes the case for accepting the reality of intentional agency under some description.

persons are not technically in control of their thoughts and actions, for they cannot cause them to be different than what they are, but are – in the words of Daniel Dennett – merely "press secretaries" of their brains.[354] The influence of practical intelligibility is therefore not substantially different from that of the *habitus*: candidate actions have a phenomenal aspect, but they come effectively preselected. In one stroke, Schatzki relinquishes any claim to explanation, which is restricted to the realm of causes.

While Schatzki is right that intentions, like most other mental states, can only exist within a hermeneutic circle informed by practices, this does not require them to be non-causal observations. Consider Searle's discussion of the assassination of the Archduke Ferdinand by Gavrilo Princip, which led to World War I.[355] Princip's action can be described on multiple levels of granularity (what Searle refers to as the "accordion effect") – he pulled a trigger, fired a gun, shot the Archduke, killed the Archduke, avenged Serbia (there are also more basic and more removed descriptions of the action that he cannot plausibly be said to have intended – constricting the muscles of his arm, causing World War I). Other than the most basic pulling of the trigger, these interpretations are only intelligible – to him as well as to outside observers – within particular practices and webs of beliefs: of firearm use, of anatomy, of imperial hegemony and nationalist honor. Yet while Princip may subsequently offer these and other explanations of his motivation, those practices did not cause his actions – they were merely prerequisites for his causal intentions. Some of these intentions were only latent or subconscious, what Searle calls "intentions in action" to separate them from "prior intentions" that an actor consciously adopts before acting. Thus Princip likely had no explicit intention to pull the trigger or to fire the gun – these were automatically signified given his conscious goal of shooting and killing the Archduke. While the semi-automatic sequencing of actions fits comfortably within Schatzki's framework, the conscious prior intentions and teleological projects in pursuit of which they are commonly performed do not.

If intentions are in fact causal entities in their own right, the challenge of connecting them to the hermeneutic meanings of practices reemerges with full force. I will take up this question directly in the next chapter, but this is a good place to lay down the groundwork by indicating why some of Wittgenstein's arguments against the reality of intentions may miss the mark. The relationship between phenomenal intentionality and our actions is notoriously difficult to describe because it plays out beyond the reach of conscious attention and any kind of objective observation. On the standard account, an intention is a mental representation of a possible state of the world and of oneself realizing it, but it also involves a peculiar psychological stance with respect to that representation. The difficulty of describing that stance without merely relying on synonyms is evident in the following attempt at articulating it:

> "[The] striking feature of intention, which is lacked in other motivational states such as desires and wishes, is about the agent's practical commitment: intending to do A implies being settled upon doing A, which means the agent is committed

[354] "One's [state of affairs] is not causally responsible for its expressions" (Schatzki, *Social Practices*, 41).
[355] Ibid, 64-5.

to carrying out the intention either in the future or at the present, although the commitment is not necessarily irrevocable."[356]

While Wittgenstein is at times taken to argue that this psychological state of practical commitment is an illusion of language, what he in fact demonstrates is that natural languages are not very competent at capturing ontologically important distinctions between mental states, such as those involved in saying something with meaning and without (or between having an intention of carrying through with an action and not having one). Thus when I say irately to a colleague "when I said it's my lunch I *meant* it" the emphasis on "meant" conveys something about the *intensity* of my feeling in the present rather than something about my state of mind at the time of the original utterance. Because language rarely directly captures such differences, we rarely notice them consciously, a fact Wittgenstein exploits extensively. But the premeditated nature of an action referenced by an utterance typically *is* discernable in its tone and other paraverbal properties.

D. Critique 2: Practice is a Medium

Compared to NPT, an interpretive practice theory can offer a stronger response to Stephen Turner's objection to practice theory *tout court*, presented in the previous chapter. Briefly, Turner argued that the coherence of individual performances of a practice is of no analytic import – there are no further entities (structures) that participants have in common beyond the similarity of performances. Individuals that share conditions of life unsurprisingly develop coping strategies and skills that are similar in appearance and effect.

Schatzki takes this objection seriously and responds that the question of similarity of internal states does not arise because a practice is defined not in terms of distinct structures that participants are posited to possess in some way, as in NPT, but rather directly as a field of *doings and sayings* which fully express the understandings and teleoaffective structures of a practice. Or, to put it differently, if the internal understandings common to participants are substantially the same it is because they are merely the obverse face of the outward appearances of "conditions of life." To the extent that individuals believe they are engaging in the same activity, and thus have coincident understandings, their actions can be considered to be encompassed by the same practice, even though the particular sayings and doings may differ across the various situations and intersections of practices that may be encountered.[357] This explanation also suggests a gauge to evaluate how a practice changes over time. When small perturbations accumulate to such a degree that participants would no longer find the previous version of the practice intelligible, the new activity may be said to be a different practice. This functional approach to delimiting a practice might be called "revealed difference."

Schatzki's account also yields appealing answers to some of Turner's practical concerns listed at the end of the previous chapter:

---

[356] Jing Zhu "Reclaiming Volition: An Alternative Interpretation of Libet's Experiment," *Journal of Consciousness Studies* 10.11 (2003): 61–77, 64.
[357] Schatzki, *Social Practices,* 103-110.

> *"Does every change in the big structure appear instantly in each individual? Is the whole evolving, telic, changeable thing present in each individual?"*

Because practice is conceived as a network of doings and sayings, rather than as a single entity, individuals become full participants over time, with some more proficient than others at any given point. This differs somewhat from Bourdieu's account, where individuals possess unique versions of the entire class *habitus*, even though there is no concrete instance of the latter. But as with the *habitus*, an action is a performance of a practice to the degree that it is understood that way by other participants.

> *"If the relation is that [a practice] causes or produces or constitutes individual dispositions, how does it do so? … what is the relationship with individuals? Are they merely "affected" by practice?"*

The relation between a practice and individual's actions and dispositions is one of *situating*, described above as "rendering intelligible." The practice constitutes a semantic field in which agents are situated and which signifies certain actions in particular situations in the process of comprehending them.

> *"If each person's mastery of the collective thing is different because it is partial, and the collective thing is constantly changing, what is the relation between the changes in the individual and the changes in the practices?"*

This question is considerably more difficult than the preceding ones because it directly probes the ontology of an interpretivist practice and questions the link between individual performances and the larger practice.

Schatzki develops his ontology of practice through a critique of two classical sociological accounts that he labels "individualist" and "compositional." In his judgment these fail because they take the mind as the "locus of sociality." On the 'individualist' approach (e.g., Alfred Schutz), social life is reduced to a series of encounters with the Other, folding society into subjective experiences of its members. In the 'compositional' account (e.g., Max Weber) sociality exists by virtue of individuals' attitudes towards the social group; it is constituted by a subjectively felt belonging.[358] Both accounts reduce sociality to certain mental stances of coexisting individuals, combined with interdependent actions. Schatzki argues that such accounts miss the omnipresent medium required for the putatively constituent mental states and attitudes to exist. Mental states and attitudes and relations between individuals transpire *within practices* (of which language is an instance), given that meaning springs from practices. In other words, meaningful social interaction can only take place against the background of practices, and one has attitudes towards the larger society only *through* the practices that bring one into contact with it. Practices form the fabric or 'tissues of coexistence' in which social relations – and more grandly, our lives as social beings – transpire.[359] Practices literally exist in the social space and cannot be entirely reduced to the properties and

[358] Schatzki, *Social Practices*, 174-180.
[359] Ibid, 180-184; Schatzki, *Site of the Social,* 134

understandings of individuals and relations between them.[360] The meanings that practices beget are not just "in the minds of the participants," he writes, but "'out there' in the expanding manifold of behaviors."

Framing practices as the "media" of society and "tissues of coexistence" makes for a fine metaphor, but when Schatzki writes that "a practice is a set of individuals' actions, but not a set of actions defined by reference to individuals alone,"[361] one must ask with reference to what is action defined if not individuals? Is there substance behind the metaphor of tissues of coexistence? Elsewhere, he writes that practices are social because "their organization is expressed in the nexuses of doings and sayings that compose them, as opposed to the individual doings and sayings involved."[362] But what exactly is this "nexus" beyond its individual components and their relations? Is it a separate entity with an independent existence? Or, again, "a doing or saying constitutes an X-ing, consequently, against the background of an understanding of X-ing that is carried in some practice."[363] What does it mean to be carried within a practice? Can we locate these understandings temporally or spatially *except* in individuals' mental states?

Systemic or structural properties are nothing more than the relations between individual components, and thus cannot constitute the nexus Schatzki has in mind. Perhaps he means to define practice as an emergent entity, meaning that its properties are not predictable from the processes and entities at a lower level of description. For instance, in the cellular automata of Conway's "Game of Life," as discussed by Daniel Dennett, persistent complex patterns that emerge in a two-dimensional array are not predictable from the simple rules that govern the state of each cell of the array and only take into account local conditions.[364] Adam Smith's invisible hand is another such phenomenon. In such scenarios, high level patterns arise out of low-level interactions, but are not analytically reducible to them and can thus be fruitfully considered to have a distinct existence. A social practice might in this way arise in the doings and sayings of a group of individuals.[365] But if practice is to be considered this sort of emergent entity it would then be inaccessible to individuals, as emergent properties are by definition invisible at the level from which they emerge. Here Turner's original objection returns with a vengeance. If practice is a set of actions not defined "by reference to individuals alone," but located "out there," how can an individual actually come in contact with it? As Turner points out, beyond explicit rules, one is never directly exposed to the community's understanding of practice in the real world, only that of individuals', some of whom may claim to speak for the community.[366] Schatzki's practice is thus at best an abstraction invisible to individuals on the ground.

The argument goes awry because defining practice as an ontologically real 'nexus of doings and sayings' confuses individual and group levels of analysis. Schatzki escapes obvious circularity in his critique of "compositional" and "individualist" accounts by

---

[360] Ibid, p.105.
[361] Ibid, 106.
[362] Schatzki, *Site of the Social,* 87.
[363] Ibid, 134.
[364] Daniel C. Dennett, "Real patterns," *The Journal of Philosophy* 88.1 (1991): 27-51.
[365] Tor Egil Førland, "Mentality as a Social Emergent: Can the Zeitgeist Have Explanatory Power? " *History and Theory* 47.1 (2008): 44-56.
[366] Stephen Turner, *The Social Theory of Practices: Tradition, Tacit Knowledge, and Presuppositions* (Chicago: University of Chicago Press, 1994), chapter 3.

silently shifting between treating practices as the explanandum and as the background to what is being explained. This shift obscures the fact that while people's thoughts and actions presuppose a background of practices, at the individual level, they *constitute* the entirety of the context that is presupposed.[367] In other words, from the individual's point of view, in the moment of engagement, there is nothing more to a practice than the understandings and teleoaffective structures that she uses to make sense of the doings and sayings observed. As much as Schatzki wants to characterize practices as existing independently and prior to individual conditions of life and patterns of interrelation, when he attempts to explain how the web of practices constitutes a medium for social interaction in *Social Practices*, he is forced to rely on the very mechanisms he dismisses just a few pages earlier: commonalities (of various cognitive states, of physical co-presence), persons being objects or subjects for each other (as in Schutz's work), and 'orchestration' – conditional dependence of one actor on others (I do X because another is doing Y, whether consciously or not).[368] The unavoidable conclusion is that the tissues of coexistence are nothing but the set of mental states of the group's members after all.

His attempt to functionally demarcate the scope of a particular practice, where a practice is shared to the extent that it is mutually intelligible for participants, also cannot succeed. Schatzki aims to bypass the thorny task of discerning and comparing the reasons and motivations behind participants' actions by focusing all attention on the publicly visible part of practice (which include actors' explanations).[369] The difficulty arises when this is combined with his claim that intelligibility is possible only in the context provided by practices.[370] To know what a given act means we have to put it in the context of a particular practice – yet to know whether someone is engaged in a particular practice (and so how to interpret her actions), we have to ask if others find her behavior intelligible. In other words, how can we say that mutual intelligibility indicates equivalence of practice when the intelligibility is signaled by behavior and that behavior in turn requires interpretation by reference to a specific practice?

While Schatzki makes a compelling case for a pragmatic, situational form of intelligibility rooted in social life, his theory of practice is hamstrung by his embrace of a crypto-structuralist immanent entity that is logically prior to individual participants. The inability to cogently describe what comprises a practice beyond individuals and their relations and how the boundaries of a practice are to be located through demonstrated

---

[367] Thus, while Schatzki is correct that "the minds, experiences, and actions through which lives hang together occur only within, and depend somehow upon, a wider context," he fails to appreciate that this context is itself nothing more than the sum of individual "minds, experiences, and actions" (Schatzki, *Social Practices*, 180).

[368] Ibid, 186-8. The reliance on orchestration is particularly striking since it corresponds almost exactly with his explanation of Schutz's view: "Two lives hang together, for instance, when one person knows or thinks something about someone else, when the second person is the object of an emotion, feeling, or action of the first, when the first understands or intends to do something with regard to the second, and so on" (188).

[369] In *Site of the Social* Schatzki further weakens this criteria by qualifying that two people's understandings of X can be considered the same if their *respective arguments* as to what constitutes X are mutually intelligible, since, of course, there can be substantive disagreements among practitioners (78).

[370] He writes, "That behavior expresses one particular condition rather than another usually depends on which practice(s) the actor is carrying out when performing it. One and the same wave of the arm, for instance, can signify the intention to turn or the desire for a teammate to position himself closer depending on whether the actor is participating in driving or football practice" (Schatzki, *Social Practices*, 131).

intelligibility suggests that practices are in fact not fully recouped in the publicly visible enactments, but also inescapably encompass mental and phenomenal states. An ontology that ignores them will be incomplete. As much as the understandings of practices are, abstractly speaking, "'out there' in the expanding manifold of behaviors," they are *also*, inexorably, "in the minds of the participants."

IV. Conclusion

This chapter presents a candidate conceptual construct to address the structure/agency dilemma within the social sciences: situated agency. The power of the concept, however, rests in the account of "situating" that remains to be filled in. I argue that social actors are situated in a background of semantic schemas through which they make sense of the world, which raises the question, What is the nature and provenance of these semantic schemas?

This is where practices reappear as the source and store of meaning. Schatzki's Wittgensteinian account, the most developed theory of practice to date, offers a compelling view of practical meaning and a strong response to Stephen Turner's challenge. But his characterization of subjectivity cannot make sense of some of the core forms of agency detailed in the previous chapter. Its neobehaviorism complicates the incorporation of goals, values and other motivational structures, ultimately undermining its prospects as the means of reconciliation of structure and agency.

Conspicuous by his absence from this discussion is Alasdair MacIntyre, who also discusses practice as a vital organizing principle of social and moral life. His defense of the intentional subject against the tide of mechanistic social science coincides with Taylor's in many respect. But his conception of practice is thicker and thus more restrictive than the one employed here. He is primarily concerned with buttressing an Aristotelian teleological worldview, and considers practices to be necessarily organized by virtues, on at least one occasion privileging the three particular virtues of truthfulness, justice, and courage.[371] For MacIntyre, the relation between practices and understandings are not bidirectional – the "standards of excellence" that inform a particular practice are given a priori, rather than arising from the practice itself. Furthermore, while many forms of activity that social theory is concerned with do have such explicit standards and goals, in the majority of practices, they are not salient for most participants most of the time. While a doctor or a musician may in a moment of calm reflect on the goals of their pursuit as such, to imagine this as a persistent frame of mind falsely projects on them a mentality of a philosopher.

[371] Alasdair MacIntyre, "The Nature of Virtues," *Hastings Center Report* 11 (1981), 27-34. There he defines a practice as "any coherent and complex form of socially established cooperative human activity through which goods internal to that form of activity are realized in the course of trying to achieve those standards of excellence which are appropriate to, and partially definitive of, that form of activity…" (30; see also Alasdair MacIntyre, *After Virtue* (Notre Dame: University of Notre Dame Press, 1982), 172-85. This essentializes certain pursuits and runs against the central tenet of practice theory as I treat it, which holds that activity can be implicitly motivated. Moreover, practitioners are in fact rarely concerned with trying to achieve standards of excellence; in most performances, MacIntyre's is not an accurate description of their actions.

Thus far we have seen many forms of practice that ultimately prove inauspicious in one way or another for our purposes. If my diagnosis of Schatzki's account is accurate, if the problem is indeed insufficient attention the subjective experience and mental states of participants, the obvious remedy is to bring them back in without abandoning the functional in-the-world aspect of meaning. To balance these two aspects of an interpretive practice, the next chapter reimagines practice theory with a greater emphasis on the *embodied* subjective experience of its performance and the subconscious mental structure thereof. I argue that a full account of how social actors make sense of their world cannot be divorced from an understanding of the body. The discussion again starts with Charles Taylor's work, then considers what recent findings in cognitive science can tell us about the way the human organism and the human mind engage with practices. In the course of this project I draw an outline of a theory of mind proper that, in contrast to Schatzki's, incorporates not only the publicly visible sayings and doings, but also their mental and bodily correlates at all level of consciousness, from muscle memory to the structuring of the most abstract concepts. I argue that such a naturalistic practice theory not only offers a plausible way of situating agency in intelligibility, effectively addressing the structure-agency and stability-change conceptual dichotomies, but also satisfies other desiderata of a theory of practice, including explaining how practices are acquired and how they change over time.

Chapter 4: Toward an Embodied Theory of Meaning and Practice

I. Intelligibility as Embodied Knowledge

A. Embodied Agents

Human activity transpires within a dense web of semantic structures: language, culture, tradition, organizational routines, and so on. It is incumbent upon social theory to investigate how those structures exercise their influence; in other words, how these "objective" forms of explanation, whether sub- or supra-personal, can be reconciled with the individual experience of free subjectivity. As Margaret Archer notes, "considerably more effort has been devoted to conceptualizing how structural and cultural properties are transmitted to agents, and potentially work as conditional influences upon them, than has been given to the other side of the equation, namely, how they are received and responded to by agents in return."[372] Crucially, studying one informs the understanding of the other. Chapter two discussed attempts to do so by locating their intersection in *praxis*. The subsequent chapter refined the approach by singling out intelligibility, the process of making sense of the world, as the moment when semantic structures impinge on the subject. Furthermore, the chapter proposed that intelligibility was rooted directly in social practices. However, these practices are undertaken by an inescapably human actor. A theory of practice must therefore encompass the embodied and physically situated condition of the agent and account for the role this condition plays in the process of creation and apprehension of meaning.

At the most general level, embodied intelligibility pertains to the experiences and properties tied to their possessor's physical person.[373] As in the previous chapter, I will use Charles Taylor's comments as an entryway into the discussion.[374] First and foremost, the human subject is at the center of her epistemological and phenomenological reference frames: "[As I look around,] some things are 'up,' others are 'down'; and in depth, some are 'near,' others 'far. Some objects 'lie to hand,' others are 'out of reach'; some constitute 'unsurmountable obstacles' to movement, others are 'easily displaced.' My present position does not give me 'good purchase' on the scene; for that I would have to shift farther to the left. And so on."[375] The meaning of 'up' and 'down' is anchored not

[372] Margaret Scotford Archer. *Structure, Agency and the Internal Conversation*. Cambridge University Press, 2003, 131.
[373] Marion Fourcade. "The Problem of embodiment in the Sociology of Knowledge: afterword to the Special issue on Knowledge in Practice." *Qualitative Sociology*33.4 (2010): 569-574, 570.
[374] Charles Taylor, "To Follow a Rule" in Craig J. Calhoun, Edward LiPuma, and Moishe Postone eds., *Bourdieu: Critical Perspectives* (Chicago: University of Chicago Press, 1993); Charles Taylor, "Engaged Agency and Background in Heidegger" in Charles B. Guignon ed., *The Cambridge Companion to Heidegger* (Cambridge: Cambridge University Press, 1993); Nicholas Smith, *Charles Taylor* (Wiley-Blackwell, 2002), ch. 1.
[375] Taylor, "Engaged Agency," 203.

only by the "objective" direction of gravity, but also by our experience of it, itself inseparable from our physical presence in the world and often accessible only in the moment of engagement.[376] In other words, much of one's semantic background is egocentric, with all the distortion and selectivity that entails. In giving directions within your neighborhood, for example, a route that is traversed daily may prove challenging to describe from a different starting point.[377] One might have to laboriously traverse the terrain in one's mind, belying the metaphor of internal maps which, like other representations, abstract away the viewer to allow arbitrary navigation.

Because the human body is a physical object in the world, the border between it and the physical environment is always tenuous. On the one hand, objects in the environment commonly become appropriated into one's body image. A blind man's cane becomes a virtual appendage; when I drive, the car ceases to be an object and becomes incorporated into the joint subject: I look and act "from the point of view of the car."[378] On the other hand, just as terrestrial phenomena (tides, climate patterns, the changing of the seasons) are mysterious from an Earth-bound point of view, human behavior cannot be understood without looking at the larger system. Most of our skills are in fact skills of interaction that presume particular environmental configurations: The skill of walking is actually the skill of continuous "controlled falling" which produces walking when realized within a human musculature.[379]

Of course, the notion of embodied and situational knowledge encompasses more than mere muscle memory. It also extends to the body's influence on emotional and mental states and normative attitudes. Mental processes rely on a variety of *cognitive* and physiological processes: properly formatted and timed sensory streams, fast motor responses, arousal of the autonomic nervous system as a basis of emotions, etc.[380] Physical needs, instinctive urges and fears (including the shadow of mortality) orient one's thought process. The strength of a desire is a function of the way it resonates in the body – motivational structures cannot be divorced from our physical self.[381] Even will power, nominally a faculty of the Kantian moral agent, turns out to be a limited cognitive

---

[376] Taylor suggests that creatures from another planet might therefore find our experience incomprehensible, but we might turn our gaze closer to home – are children who grow up with severe physical handicaps likewise "unable to grasp" some of these terms?

[377] Taylor borrows this example from Bourdieu.

[378] Nick Crossley. "The phenomenological habitus and its construction." *Theory and Society* 30.1 (2001): 81-120, 102.

[379] Michael J. Richardson, et al. "Ecological psychology: Six principles for an embodied–embedded approach to behavior" in Paco Calvo and Toni Gomila eds., *Handbook of cognitive science: An embodied approach* (Elsevier, San Diego: 2008)161-187.

[380] Some terminological clarification is in order. Largely in line with general usage, I use *cognitive* to refer to psychological states and processes viewed from an objective point of view (thus attention and working memory are cognitive mechanisms). *Mental* states are all those that can potentially be consciously experienced (see below for further discussion), and encompass propositional thoughts, emotional states, intentions, desires, etc. A particular mental state may or may not be *conscious* or *phenomenal*. The phenomenal aspect is famously the "what it is like" of an experience (Thomas Nagel. "What is it like to be a bat?." *The philosophical review* (1974): 435-450). Thus cognitive and mental states/processes partially overlap: a conscious reasoning process is both cognitive and conscious mental process. Long-term memory formation is a cognitive but not mental process. Phenomenological qualia are by this definition non-cognitive mental states.

[381] Charles Taylor, "Explaining Action," *Inquiry* 13.1-4 (1970): 54-89.

resource subject to depletion.[382] Taylor further points out, drawing on Bourdieu's notion of the *habitus*, that social concepts including deference and domination, tact and impropriety, and one's moral orientation likewise have a basis in bodily movement patterns, themselves conditioned by the environment.[383]

In isolation, all this is likely intuitive, but the embodied agency position stands in sharp contrast to what Taylor calls the 'dominant rationalist view' of the subject within Western philosophy that is marked by an "ontology of disengagement," canonically expressed in Plato's dismissal of the body as not merely unimportant but as an actively corrupting influence on the mind because of its quirks and inconsistencies, a handicap to be overcome.[384] In modern philosophy, Descartes's mind-body dualism, which perpetuates this view, has been a highly influential position. To the extent that meaning or Reason were conceived as a distinct domain, the content of which was introspectively transparent and subject to purely analytic methods, the physical body including the brain could be treated as a black box and its investigation dismissed as generating irrelevant implementation details. This view is implicit in the claim that agents act for "reasons of their own" and in the refusal to systematically investigate the provenance of those reasons. While the connection between mind and body has been a source of great debate, engagement with psychology and neurophysiology as a way of *understanding* mental phenomena (as pursued by Maurice Merleau-Ponty) has been the exception rather than the rule. Human behavior on this long-standing view is a process where individuals passively absorb information from the world through the senses to construct an internal model of the world; this model is then used to churn through existing goals and desires to yield the necessary actions by a calculus of means and ends. This is the notion of agency as deliberative rationality that I labeled agency$_0$ in chapter two.

A similar attitude holds in much of social science. In the drive to systematize methods and make them more rigorous, the idiosyncrasies of individual psychology had to be bracketed. Macrosociology and some forms of institutionalism treat individuals as black boxes, in so far as those methods focus on the patterns within the interaction of organizations and individuals rather than their unique attributes. Indeed, most approaches I classified as "objectivist" in the introduction, including methodological individualism, have found that treating the mind as a black box with certain algorithmic properties is necessary for tractable modeling. To understand bureaucratic inertia, it is

---

[382] Roy F. Baumeister, Mark Muraven, and Dianne M. Tice. "Ego depletion: A resource model of volition, self-regulation, and controlled processing." *Social cognition* 18.2 (2000): 130-150.

[383] But unlike Bourdieu and other insufficiently-post-structuralists, Taylor contends we have more than a residual awareness of the background "because it makes intelligible what I am uncontestably aware of; but at the same time I cannot be said to be explicitly or focally aware of it, because that status is already occupied by what it is making intelligible. I can articulate the background, 'can bring out of the condition of merely implicit'" Taylor, "Engaged Agency," 211).

[384] Socrates explains to Simmias, "…if we are ever to have pure knowledge of anything, we must get rid of the body and contemplate things by themselves with the soul by itself. ... It seems that so long as we are alive, we shall continue closest to knowledge if we avoid as much as we can all contact and association with the body, except when they are absolutely necessary, and instead of allowing ourselves to become infected with its nature purify ourselves from it until God himself gives us deliverance. In this way, by keeping ourselves uncontaminated by the follies of the body, we shall probably reach the company of others like ourselves and gain direct knowledge of all that is pure and uncontaminated--that is, presumably, of truth" (*The Collected Works of Plato,* Huntington and Cairns (ed.), Princeton U. Press, 1980, p. 41-67, p.66).

enough to lay out the typical motives of the relevant decision makers in the organization and interaction between them. Drilling down lower is unlikely to increase understanding; it may in fact introduce superfluous complexity and obscure the main relationships of interest.

Treating a subsystem as a black box is a salutary approach when the relationship between its inputs and outputs (e.g., perception and behavior) is well understood, and/or the intermediate processes are deemed to lack any relevant or feasibly discoverable structure. Thus hard-nosed behaviorism that cast the mind as a black box connecting sensory inputs to behavior had a justifiable appeal after the speculative and unscientific nature of earlier introspective psychology. Later, when the brain came to be viewed as a universal computer carrying out arbitrary cognition, the underlying details and structure once again held little import for higher-level disciplines and could be successfully decoupled from the psychological processes running on top. Thus, on the traditional view, even subjective individualism is compatible with the black box view of psychology.[385]

But over the past several decades, evidence has been accumulating that the universal computer picture of the brain masks a collection of limited, domain-specific mechanisms.[386] The evidence also reveals many internal irregularities and idiosyncrasies of human thought – including but not limited to cognitive biases[387] -- that have an unexpectedly strong influence on mental processes. This puts in question the simplifying assumptions that social theory necessarily makes about acquisition, transmission, and externalization of social knowledge. Revisiting these assumptions advances overall understanding. As Ted Hopf puts it, "eliding the mind denies us the insights of cognitive neuroscience in developing a theory of habit and practice that can both illuminate the process and offer observable implications, or falsifiable propositions, to subject to empirical testing."[388] This is the motivation behind my argument in chapter two that the vagueness of Bourdieu's psychology impedes the development of practice theory.

The "culture" construct, ubiquitous in social theory, is a case in point. Empirical research in cognitive science – a confluence of philosophy, psychology, linguistics, neurobiology and information science that explores the intersection of mind and brain – provides important evidence regarding a number of questions about culture: how it is taken up in ordinary thought, why individual's culture-affected attitudes vary over time (often by situation), and how individuals are able to participate in multiple inconsistent traditions.[389] We now have initial explanations of why, for instance, certain categories like race and ethnicity are more salient than others such as class[390] and of how the media

---

[385] Raymond Boudon, "Social Mechanisms without Black Boxes" in Peter Hedstrom and Richard Swedberg eds., *Social mechanisms: An analytical approach to social theory* (1998), 192.

[386] For a survey of some of these domains see Lawrence A. Hirschfeld and Susan A. Gelman, eds., *Mapping the mind: Domain specificity in cognition and culture*. Cambridge University Press, 1994.

[387] For a partial catalogue of the currently known cognitive biases and their effects see Christopher K. Hsee and Reid Hastie. "Decision and experience: why don't we choose what makes us happy?" *Trends in cognitive sciences* 10.1 (2006): 31-37.

[388] Ted Hopf. "The logic of habit in International Relations." *European Journal of International Relations* (2010), 547.

[389] Paul DiMaggio. "Culture and cognition." *Annual review of sociology* 23.1 (1997): 263-287.

[390] Lawrence A. Hirschfeld, *Race in the Making: Cognition, Culture and the Child's Construction of Human Kinds* (Cambridge, MA: MIT Press, 1996); Francisco J. Gil-White. "Are ethnic groups biological

can unintentionally activate and raise salience of group identities.[391] Perhaps surprisingly, empirical research can also inform normative debates about the importance of culture in the lives of individuals. The conclusion of this chapter will take up how an empirically-informed theory of embodied meaning and practice advances one of the chief debates in the Anglo political theory of the 1990s that centered on the degree of recognition and protection to be accorded to national minorities' culture by the larger society.

The argument over the nature and importance of culture is one instance where opening the black box of psychology appears to be helpful on a variety of levels. In this chapter I will likewise use the findings collected over the past several decades in cognitive science to illuminate the nature of phenomenal meaning and the potential for reconciling agency and semantic structure. The view that cognitive science holds important insights for social science and even the humanities is voiced increasingly by both sides.[392] As one commentator notes, "a cultural sociology that theoretically accounts for the bodily foundations of knowledge can make more convincing arguments regarding social influences on the construction of knowledge."[393] However, cross-disciplinary interaction remains largely the exception today, so before proceeding, it will be useful to give a brief introduction to contemporary cognitive science, its core tenets as they pertain to embodied meaning, and how its findings may be incorporated into social science research.

B. The Embodied Cognition Program: History and Methods

The first generation of cognitive science, born of work by Alan Turing that indicated that human thought may be encoded by symbolic computations, was premised on the claim that the biological substrate ("vehicle") of human thought is incidental to its

---

"species" to the human brain?." *Current Anthropology* 42.4 (2001): 515-553, cited in Rogers Brubaker, Mara Loveman, and Peter Stamatov. "Ethnicity as cognition." *Theory and Society* 33.1 (2004): 31-64.

[391] Brubaker et al, "Ethnicity as Cognition."

[392] Paul DiMaggio, for example, argues that cognitive psychology teaches at least two lessons relevant to sociology: (1) there are multiple dimensions to categorizing action, rather than the traditional distinction between automatic and deliberative behavior (as per the introductory chapter here) and (2) knowledge and dispositions are domain and situation-specific (see section IV below). See also Mathew McCubbins and Mark Turner. "Going Cognitive: Tools for Rebuilding the Social Sciences." *Available at SSRN 1728262* (2010); Lakoff, George. *Moral politics: How liberals and conservatives think*. University of Chicago Press, 2010. The deeper epistemological question of the relevance of empirical inquiry for humanities, and of natural science for human sciences, has itself been addressed by a number of authors: Edward Slingerland, *What science offers the humanities* (Cambridge: Cambridge University Press, 2008); Mark Turner. *Cognitive dimensions of social science*. Oxford University Press, USA, 2001. William E. Connolly. *Neuropolitics: Thinking, culture, speed*. U of Minnesota Press, 2002; Lakoff and Johnson 1999. For a critical review of some of these attempts at interdisciplinary engagement see John G. Gunnell. "Are we losing our minds? Cognitive science and the study of politics." *Political theory* 35.6 (2007): 704-731. Richard Shweder similarly cautions against excessive optimism in this area, pointing to a frequent a lack of understanding between practitioners of different disciplines (Richard A. Shweder. "A polytheistic conception of the sciences and the virtues of deep variety." *Annals of the New York Academy of Sciences* 935.1 (2001): 217-232).

[393] Gabriel Ignatow. "Theories of Embodied Knowledge: New Directions for Cultural and Cognitive Sociology?" *Journal for the Theory of Social Behaviour* 37.2 (2007): 115-135: 115.

informational content.[394] On this "computationalist" view concepts are structures built in a "language of thought," and mental processes are imagined as rule-governed manipulation of those structures and computations across them.[395] Sensory input from the real world and subsequent reasoning are viewed to be distinct sequential stages, separated by the process of encoding. Aside from autobiographical sensory memories (e.g., the taste of *that* chocolate ice cream) and motor skills, one's knowledge and mental processes are propositional in nature and symbolic in format.

In computer science, this approach manifested in attempts to create artificial intelligence by assembling massive sets of organized knowledge. It was thought that a sufficiently extensive set of factual propositions would simulate 'common sense' and eventually true intelligence.[396] Such efforts produced a string of successes in the 50s and 60s, but as the AI field aspired to increasingly complex tasks (though ones that appear trivial to the human mind, like visual pattern recognition), progress was stymied by the combinatorial explosion of knowledge that proved to be necessary. Attempts within the computationalist approach to deal with this problem[397] ultimately failed to overcome the asymptotic growth in informational complexity inherent in the rule-based approach to intelligence. In addition to such practical challenges, the theory was plagued by a deeper philosophical question: it could not explain how a system that operated solely through symbol manipulation could ever be said to entertain *meaning* (the "symbol grounding" problem).[398] As a result, the computationalist theory of semantics appears increasingly weak today.[399]

With better understanding of brain processes and advances in artificial neural networks in the 80s, the first generation of cognitive science has largely given way to a

---

[394] Alan M. Turing. "Computing machinery and intelligence." *Mind* vol. 59 N.236 (1950): 433-460; Allen Newell and Herbert A. Simon. "Computer science as empirical inquiry: Symbols and search." *Communications of the ACM* 19.3 (1976): 113-126.

[395] Within philosophy of language this view has been most consistently defended by Jerry Fodor (Jerry A. Fodor. *The language of thought*. Harvard University Press, 1975; Jerry Fodor, *The Mind Doesn't Work that Way: The Scope and Limits of Computational Psychology* (Cambridge: The MIT Press, 2000); Jerry A. Fodor and Zenon W. Pylyshyn. "Connectionism and cognitive architecture: A critical analysis." *Cognition* 28.1 (1988): 3-71) and Steven Pinker (Steven Pinker, *How the mind works*. 1997. NY: Norton.

[396] Doug Lenat's CYC project was the most ambitious of such attempts (Douglas B. Lenat "CYC: A large-scale investment in knowledge infrastructure." *Communications of the ACM* 38.11 (1995): 33-38).

[397] C.f. Marvin Minsky's influential proposal that large quantities of knowledge can be handled by partitioning it into "frames," or "data structure[s] for representing a stereotyped situation… to be adapted to fit reality by changing details as necessary" (Marvin Minsky. "A Framework for Representing Knowledge." *The Psychology of Computer Vision* 1975).

[398] The difficulty at hand has been most notably captured by John Searle (John R. Searle. "Minds, brains, and programs." *Behavioral and brain sciences* vol. 3 (1980): 417-457), though the term hails from Stevan Harnad 1990. "The symbol grounding problem." *Physica D* 42, 335–346.)

[399] Gabriel Ignatow summarizes the accumulating strikes against the traditional model: "First, theorists have failed to provide empirical accounts of the transduction principle or evidence of the existence of amodal [non-sensory] representations. Second, no compelling account of how amodal representations are linked to perception and action has been provided" (Ignatow, "Theories of Embodied Knowledge," 120). Although a failed proof by construction does not prove the inverse of the claim, it is interesting to note that in their evaluation of the two most prominent simulations of systems that attempted to learn a subset of language via amodal symbols, Arthur Glenberg and David Robertson found both to be implausibly weak (at least too weak to be the entire explanation) (Glenberg, Arthur M., and David A. Robertson. "Symbol grounding and meaning: A comparison of high-dimensional and embodied theories of meaning." *Journal of memory and language* 43.3 (2000): 379-401). Section II below discusses this issue in more detail.

"connectionist," embodied view of the mind.[400] Connectionism holds that mental representations are instantiated by patterns of activation within a network of simple nodes that do not themselves encapsulate any semantic content. Its roots reach back to the early study of biological neural networks[401] and simple neural learning.[402] Connectionism is not *prima facie* incompatible with modeling mental processes as symbolic manipulation since neural networks can viewed as generating the substrate for higher level symbolic operations. However, it is commonly thought to favor embodied or situated psychology, which departs from computationalism in several key ways:

- *First,* personal knowledge is predominantly agent-relative and pragmatic in nature, rather than being captured in an abstract, universal model.[403] Conceptual categories consist of a vector of possible world interactions. In Lawrence Barsalou's words, a connectionist "conceptual system is an agent-dependent instruction manual. According to this metaphor, knowledge of a category is not a general description of its members. Instead a concept is a skill that delivers highly specialized packages of inferences to guide an agent's interactions with specific category members in particular situations."[404]

- *Second,* agent- and function-relativism of knowledge implies extensive culling and approximation in the course of capture and recall of information. This also checks the potential explosion of information necessary for mental processes, which are viewed as more tolerant of information attrition.

- *Third,* information is stored and activated in its original sensory modality. Perceptual and bodily states are not transduced into symbolic structures. The embodied nature of mental processes is reflected in their content and their phenomenal character, in contrast to the separation of content and form of information proposed by the earlier view.

---

[400] Representative work includes Ignatow, "Theories of Embodied Knowledge"; Michael L. Anderson. "Embodied cognition: A field guide." *Artificial intelligence*149.1 (2003): 91-130; and Raymond W. Gibbs. "Embodied experience and linguistic meaning." *Brain and Language* 84.1 (2003): 1-15.

[401] Warren S. McCulloch and Walter Pitts. "A logical calculus of the ideas immanent in nervous activity." *Bulletin of mathematical biology* 5.4 (1943): 115-133.

[402] Donald Olding Hebb. *The organization of behavior: A neuropsychological theory*. Lawrence Erlbaum, 2002 [1949]. As a basis of cognitive theory, connectionism initially found few supporters (Hubert L. Dreyfus and Stuart E. Dreyfus. "Making a mind versus modeling the brain: Artificial intelligence back at a branchpoint." *Daedalus* (1988): 15-43). But spurred by the increasing weakness of the alternative and improvements in understanding of complex neural networks mechanisms, it was resurrected after several decades of neglect in the late 80s largely through the work of David Rumelhart and colleagues (David E. Rumelhart Geoffrey E. Hintont, and Ronald J. Williams. "Learning representations by back-propagating errors." *Nature* 323.6088 (1986): 533-536; David E. Rumelhart and James L. McClelland. "Parallel distributed processing: explorations in the microstructure of cognition. Volume 1. Foundations." (1986)).

[403] Along these lines, AI pioneer Rod Brooks has long argued that intelligence emerges from engaging with a challenging environment, noting that "The key observation is that the world is its own best model. It is always exactly up to date. It always contains every detail there is to be known. The trick is to sense it appropriately and often enough." (Rodney A. Brooks. "Elephants don't play chess." *Robotics and autonomous systems* 6.1 (1990): 3-15, 5).

[404] Lawrence Barsalou. "Situated simulation in the human conceptual system." *Language and cognitive processes* 18.5-6 (2003): 513-562: 536.

- *Fourth,* second generation cognitive science views the brain not as a "universal computer" but as an assemblage of specialized modules that can be recruited when learning new skills.[405] Complex person-level competencies are increasingly viewed as being backed by combinations of narrow capabilities and skills.

Although the discipline is young, cognitive science has generated a number of exciting discoveries, many of which will be discussed below. None perhaps have been more influential**,** however, than the discovery of "mirror neurons." Because they will come up in a number of contexts below, it is useful to summarize the findings here. Originally found in macaques, such neurons were observed to fire only when the monkeys made certain grasping actions and when they watched a conspecific performing the same motion.[406] A compelling interpretation of this observation that the same neurons are involved in both visual perception and motor control with regard to particular ways of grasping is that the monkey "makes sense" of what it perceive by reference to its own motor programs for such actions. Further experimentation has shown similar effects in humans (though not yet at the individual neuron level), and more specifically that neurons in this area respond to the *interaction* between agent and object. Some of these of neurons are triggered not by the particular kinematic sequences but only by the inferred immediate goals of the actions (e.g., of grasping the object) and even by more distal goals (e.g., of grasping to put into one's mouth), and can generalize across different objects, orientations of motion, and other situational variations.[407] In the wake of their discovery, mirror neurons have been speculated to play a role in imitation behavior, action and intention understanding, emotional perception and empathy, theory of mind, and even self-consciousness.[408]

At first glance, empirical cognitive science may appear incompatible with an *interpretive* practice theory. There is a legitimate concern of regressing to objectivism, where lip service to subjective meanings masks the explanatory primacy of deep structures, a danger that so occupied Bourdieu.[409] This is one of the reasons that

---

[405] As Tooby and Cosmides point out, plasticity is only advantageous when guided by rigid well-designed mechanisms ("Psychological foundations of culture", 101). See Leda Cosmides and John Tooby. "Origins of domain specificity: The evolution of functional organization." *Mapping the mind: Domain specificity in cognition and culture* (1994): 85-116.

[406] Vittorio Gallese et al. "Action recognition in the premotor cortex." *Brain* 119.2 (1996): 593-609; G. di Pellegrino, et al. "Understanding motor events: a neurophysiological study." *Experimental brain research* 91.1 (1992): 176-180; Leonardo Fogassi, et al. "Parietal lobe: from action organization to intention understanding." *Science* 308.5722 (2005): 662-667.

[407] M. A. Umiltà, et al. "When pliers become fingers in the monkey motor system." *Proceedings of the National Academy of Sciences* 105.6 (2008): 2209-2213; Vittorio Gallese. "Motor abstraction: a neuroscientific account of how action goals and intentions are mapped and understood." *Psychological research* 73.4 (2009): 486-498. See below for further discussion.

[408] Lindsay M. Oberman and Vilayanur S. Ramachandran. "The simulating social mind: the role of the mirror neuron system and simulation in the social and communicative deficits of autism spectrum disorders." *Psychological bulletin*133.2 (2007): 310; Vittorio Gallese. "The manifold nature of interpersonal relations: the quest for a common mechanism." *Philosophical Transactions of the Royal Society of London.* 358.1431 (2003): 517-528; Giacomo Rizzolatti and Corrado Sinigaglia. "The functional role of the parieto-frontal mirror circuit: interpretations and misinterpretations." *Nature Reviews Neuroscience* 11.4 (2010): 264-274.

[409] Pierre Bourdieu, *The Logic of Practice* (Stanford: Stanford University Press, 1990, Introduction.

philosophers such as Taylor are highly skeptical of the relevance of neurophysiology to their domain.[410] But Taylor considers only two possible forms that such explanations can take. One, where the inquiry remains purely descriptive, simply seeking neural correlates of particular mental states or behaviors. Such work, he admits, can be very useful in medicine and clinical psychology while safely remaining silent about the nature of the mind.[411] The other he calls an "epistemological monstrosity" in which neural factors *cause* mental (and indirectly) social phenomena and therefore demonstrate folk psychological concepts to be nothing more than irrelevant delusions. This concern – and the danger of over-interpreting empirical results when blending cognitive science and philosophy – was amply demonstrated by a study published the same year as Taylor's "philosophical anthology" where he voiced this fear. Benjamin Libet found that in certain experimental situations the neural precursors of initiating a simple physical action such as flexing a finger are observable hundreds of milliseconds before the subject reported being aware of the intention to move.[412] Libet concluded that the decision to act had originated in subconscious brain processes and the phenomenal experience of the volition was a superfluous after-the-fact rationalization, rather than the cause of the motion. As Taylor argued, were it to hold up, the implications of such a finding for the conceit of intentional agency would indeed be profound (further consideration suggests a number of fundamental problems with Libet's interpretation of the experiment, ultimately rendering it untenable[413]). But in addition to these two, there are other ways that cognitive science can inform philosophy of mind that Taylor does not consider. Even neuro-imaging studies, rather than merely finding low level correlates of person-level phenomena (or vice-versa!), can illuminate intermediate cognitive or linguistic constructs that would otherwise remain hidden and, in the context of a proper philosophy of mind,

---

[410] Charles Taylor. *Human agency and language.* (Cambridge University Press, 1985), 177.

[411] This is possibility is summed up in James Klagge's rendition of Wittgenstein as thinking that "Neuroscience may come to understand us completely as objects, without being able to understand us as subjects or agents" (James C. Klagge. "Wittgenstein and neuroscience." *Synthese* 78.3 (1989): 319-343, 331).

[412] Benjamin Libet "Unconscious cerebral initiative and the role of conscious will in voluntary action," *Behavioral and Brain Sciences.* 1985. v.8, pp.529-539

[413] To start, the intention to carry out the action was arguably planted by the experimenters in their description of the study before it even began, and it was only the activation of the prior intention that was initiated subconsciously (Jing Zhu. "Reclaiming volition: An alternative interpretation of Libets experiment." *Journal of Consciousness Studies* 10.11 (2003): 61-77. The interpretation also confuses multiple levels of description, conflating the neural *correlates* of volition with the phenomenon itself, evidenced in the peculiar proposition that the *volition* to move was present before the experimental subject was aware of it (Richard A. Carlson, "Conscious Intentions in the Control of Skilled Mental Activity." *The Psychology of Learning and Motivation.* 2002. v. 41, pp. 191-228; Shaun Gallagher. "Where's the action? Epiphenomenalism and the problem of free will", in Susan Pockett, William P. Banks, and Shaun Gallagher (eds.), *Does Consciousness Cause Behavior* Cambridge: The MIT Press (2006): 109-124; Daniel C. Dennett, "The Self as a Responding — and Responsible — artifact." *Annals of the New York Academy of Sciences* 1001.1 (2003): 39-50). The brain's distributed architecture entails that conscious intentions will inevitably be preceded by local precursors, but their existence need not impugn the causal potency of the phenomenal volition (for a discussion of this contention see section V.B below). Also implicated in the interpretation is a conflation of time scales of mental processes. Richard Carlson points out that conscious intentions, "like any representation, must be constructed over time rather than occurring instantaneously, despite the fact that experimental participants are apparently willing to identify a 'point' in time at which they experience a conscious intention." (Carlson 2002, 209). The experience of 'free will' is just something that occurs at a larger temporal granularity than initiation of physical motion.

expand our understanding of subjective experience. The task of this chapter is precisely to present such constructs.

C. Chapter Outline

Libet's study reminds us that empirical research must proceed in tandem with theoretical inquiry that interprets its results. In that spirit, the next two sections lay out the foundations for both the cognitive basis of meaning and a naturalist philosophy of mind, as well as the evidence for both. In section II, I detail what it means for intelligibility to be constituted by bodily experience in the world. I contend that meaning is the phenomenal experience of reactivations of past sensorimotor experience and other observable processes. That is, the occurrent thought of a concept invokes past experiences captured by that concept (often structured by a practice), giving meaning an inherently about-the-world orientation. To give more substance to this claim, I discuss several mechanisms that are currently thought to be involved in this process: motor schemas, "perceptual symbols systems," and cognitive metaphor. In section III, I complement that account of meaning with a set of conceptual tools I borrow from Thomas Metzinger. I use these to flesh out the notion of "mental state" and to make sense of the perennially problematic idea of non-phenomenal meaning and intentionality, an important step in the path to connecting observable processes to the subjective experience of intelligibility. These conceptual tools also help explain why mental states or meanings may be unavailable to introspective attention.

In sections IV and V, I deploy this conceptual apparatus in the pursuit of a naturalized account of agency. I argue that the forms of agency distinguished in chapter two flow out of the process of complex perception by which we make sense of the world, where raw sensory input is filtered through and overlaid with multiple semantic layers: one's momentary concerns and attentional focus; emotional and moral evaluation of a situation; and one's skills and abilities. It is in this process of constructing a meaningful representation of the world that agency becomes possible and semantic structures exert their influence. Perhaps the most important of the semantic layers projected onto the experience of the world is the set of possible interactions with it or "affordances," to use J.J. Gibson's term. This process is most evident in the simpler case of non-reflective, habitual activity, exemplified by Hubert Dreyfus's notion of "absorbed coping." I contend we should conceive of such activity as both guided by situational affordances *and* intentional in the sense of being guided by meanings. I then propose that deliberate, reflective activity can also be grounded in the experience of embodied intelligibility by introducing the concept of "mental affordances." While traditionally an affordance is a feature of one's material environment, the concept offers a fruitful interpretation of the mental domain as well. In addition to intentional agency, I show how the same mechanisms are also involved in creative and evaluative agency. Finally, I argue that while practices have embodied and mental aspects, they are of a social realm: the act of making sense of the world automatically imputes to us an implicit social identity. I flesh this out with a discussion of person-level and subpersonal psychological mechanisms that give rise to social awareness without relying on mediating webs of propositional belief.

After discussing the embodied basis of subjective agency, I step back to defend the viability of embodied practice as an analytic concept applicable in the real world. To

operationalize it one must address a number of questions: How do we draw boundaries around a practice in the real world? When should multiple performances be considered to be of the "same" practice? How do practices propagate and evolve? These in turn require me to tackle the objections of Stephen Turner discussed in the previous chapters. I then explore what embodied practice theory adds to our understanding of change in social systems, particularly with respect to endogenous change and systemic susceptibility to external shocks. The chapter concludes with an argument for the relevance of embodied semantics for political theory (whereas the next chapter considers its relevance for applied disciplines). I revisit the use of the "culture" concept in social science and show what the theory brings to that debate. Turning then to democratic theory, I contend that although recent work in social and cognitive psychology seems to have mostly discouraging implications for the proposals of deliberative democrats, a theory of embodied semantics also gives reasons for hope.

II. Cognitive Building Blocks of Meaning

This section lays out the foundational cognitive building blocks of phenomenal semantics, presented in three stages.[414] Subsequent sections will explore the higher order psychological processes that constitute the subjective experience of meaning on the basis of these mechanisms.

The first step is to present the very strong evidence that meaning, including abstract concepts[415], arises from partial representations of actual historically situated, sensorimotor experiences that are typically stored and activated in the brain in their original sensory modality: body kinematics, sensory perceptions (the five external senses

[414] A number of recent monographs in philosophy of psychology have drawn on cognitive science to argue that the mind is fundamentally shaped by its relation to the body. In their pioneering 1999 opus, Lakoff and Johnson systematically tracked how attention to cognitive metaphor unravels a number of major philosophical dilemmas (*Philosophy in the Flesh*). Shaun Gallagher's work explores how phenomenal consciousness is rooted in the subconscious, internalized image of one's body (Shaun Gallagher. *How the body shapes the mind*. Oxford: Clarendon Press, 2005; see also Raymond. W. Gibbs Jr. *Embodiment and cognitive science*. Cambridge University Press, 2005). Mark Johnson makes a similar argument regarding the foundation of the experience of meaning and personhood (Mark Johnson. *The Meaning of the Body: Aesthetics of Human Understanding*. Chicago: University of Chicago Press, 2007). Finally, Jerome Feldman offers a comprehensive story of how even abstract concepts can be traced back to simple neuronal structures (Jerome A. Feldman. *From molecule to metaphor: A neural theory of language*. MIT Press, 2006). The theme of Johnson's monograph – that bodily engagement with the world is the basis of phenomenal meaning - is the closely to the task of this chapter and specifically this section. But while he lays the groundwork, connecting the theory of embodied cognition to past literature, particularly John Dewey, and shoring up the cognitive research involved in the sensorimotor basis of meaning discussed in this section, he does not take the next step of integrating this embodied meaning into subjective experience.

[415] A concept may be defined for present purposes as the "mental representations of categories that are or *can be* activated in working memory" (Jesse J. Prinz. *Furnishing the mind: Concepts and their perceptual basis*. MIT press, 2004, 149) or "the accumulated information in memory abstracted for a category, where a category is a set of things in the world perceived as the same type of thing" (Wenchi Yeh and Lawrence W. Barsalou. "The situated nature of concepts." *The American journal of psychology* (2006): 349-384: 352). Admittedly, these definitions are less than helpful in handling abstract concepts. In particular, "concept" has a broader meaning than "category" – FORCE and NUMBER are concepts but hardly categories. On the nature of concepts see Andrea A. Disessa and Bruce L. Sherin. "What changes in conceptual change?." *International Journal of Science Education* 20.10 (1998): 1155-1191.

and sense of spatial orientation, pain), and so on. Importantly, emotional states and responses are a critical piece of this constitution of meaning. Although emotional states are probably not stored directly like sensorimotor perceptions since they are not representational states, they are a key aspect of situational meaning (see section IV). Recall that the "cognitive" predicate is not restricted to propositional or symbolic states and processes.

These past experiences are continuously recruited to understand what is heard, to compose a reply, to know how to act, and to generally to make sense of our position in the world. This idea echoes Bourdieu's notion of homologies that link the physical and conceptual domains, which he argued map bodily experiences such as vertical spatial orientation, posture, and gender to the moral domain. The mechanisms described below form a strong causal link from the sense of physical uprightness and stature to moral probity that he proposed existed, and can explain *why* external similarity of behavior can bring about similarity of internal mental states. In short, the claim is that meaning is not a matter of operations on symbolic structures but of interactions between sensorimotor traces. I hasten to add, however, that when I speak of "meaning" and "concepts" in this chapter, I am referring specifically to hermeneutic meaning or intelligibility, i.e., phenomenal meaning occurring to actors engaged in the world (and subconscious or functional forms of the same), since that is what is necessary to situate actors in a social context. I am not making the stronger claim that sensorimotor experience is sufficient for other philosophic interpretations of "meaning", or meaning as such.

It should also be noted that the elaboration of this account is an ongoing endeavor, with many aspects subject to active investigation and debate. In particular, there is disagreement in the literature as to whether the link between sensorimotor systems and semantic content is continuous and direct (concepts are modal "through and through," encoded in particular sensory modalities) or mediated and task dependent.[416] But although the below discussion assumes the former, stronger form – for simplicity of exposition and because, at present, the evidence is in its favor – if additional processes were later discovered to mediate or modulate the involvement of sensorimotor systems, this would not alter the overall form of the argument. Similarly, while the more specific theories such as that of cognitive metaphor presented below may be later modified or even replaced, they can only be replaced by other theories on the same levels of description.

The bulk of the section is concerned with explaining how a subconscious replay of these sensorimotor representations yields meaning and discussing the evidence for this position. Essentially, these "simulations" of the past are superimposed like a filter on raw sensory input. If someone asks me, "Did you go to the store today?", just to comprehend the question, I subconsciously simulate a vast array of such sensory fragments, including autobiographic memories of entering a store, the visual appearance of stores, the kinesthetic sense of driving or walking, etc. Or, suppose that during the store trip I witness a mugging. Judging it as reprehensible, for example, involves – under the hood, as it were – actual replays of fragments of similar (reprehensible) experiences, from

[416] Meteyard and Vigliocco do a good job of articulating the differences between the strong and weak embodied semantics theses (Lotte Meteyard and Gabriella Vigliocco, "The role of sensory and motor information in semantic representation: a review" in Paco Calvo and Toni Gomila eds., *Handbook of cognitive science: An embodied approach* (Elsevier, San Diego: 2008).

physical images (say observing unprovoked violence) to sophisticated concepts (a con of a hapless victim), to offensive utterances.[417] These simulations lend the scene a consciously experienced repugnant aspect and automatically call forth responses from a simple frown or turning away to forceful intervention.

The processes described here are for the most part not directly subject to introspection in the same sense that we are not aware of the way the brain constructs the visual scene as ordinarily experienced. Thus the above claim and those that follow draw on several classes of evidence from empirical cognitive science to link the mind, the body, and its environment:

- *Behavioral studies* seek to infer underlying cognitive processes from observed animal and human behavior, typically in laboratory situations. "Task interference studies," for instance, can supply evidence that a single cognitive (or neurophysiological) mechanism is involved in apparently unrelated functions by demonstrating that the performance of one enhances or degrades performance of another in unexpected ways. "Semantic priming" experiments show that purely semantic primes (such as words in a linguistic task) activate or "prime" conceptually related behaviors, suggesting that the same cognitive processes are involved in both language processing and behavior control.

- *Neuro-imaging studies* associate areas of the brain with particular functions and help identify ostensibly unrelated functions that are co-located in the brain. For instance, activation of cortices known to be involved in motor control while a person categorizes images of human movement implies that motor schemas are subconsciously activated in this conceptual task.[418]

- *Developmental psychology* studies how children acquire various motor and mental skills and reveals the ontogenetic interdependence of various mental functions and their hidden nature, often invisible in adults where the skills are extremely rapid and streamlined. It has provided strong evidence against certain cognitive theories.

- Finally, *clinical neuro-psychology* has generated some of the most revolutionary findings.[419] A variety of unexpected – even inconceivable – effects of brain traumas

---

[417] Of course, these higher level operations rest on top of simulations that interpret the event on a more basic level: parsing the scene into persons, associating property to one of them, combining the physical movements seen into a single coherent action, etc.

[418] Currently, the most powerful of these techniques, fMRI, can record the entire volume of the brain at 1-2mm resolution. fMRI works by measuring changes in blood flow, a proxy for neural activity. Specifically, it detects the magnetic differences of oxygenated and deoxygenated hemoglobin, and thus the metabolic rate of neurons in the area, showing which areas are active. Other methods measure brain activity through its electric activity, though they typically have lower resolution. Despite these rapid advances, even the fMRI provides a very crude measurement of neural structure as its smallest unit of resolution contains on the order of a million neurons.

[419] One of the seminal works in this field, Antonio Damasio's *Descartes' Error* (New York: Putnam, 1994) examines cases of localized but severe brain trauma, like that of the infamous Phineas Gage, to conclude that emotion is in a certain sense necessary for ordinary functioning, rather than being an impediment to reason. While patients with such traumas carry on normally in many ways, even engaging in complex

yield overwhelming testimony against certain views of the mind.[420] For instance, cognitive pathologies such as Anton's syndrome – the sincere denial that one is blind – and hemineglect – the unrecognized inability to direct attention to the left visual hemisphere – unequivocally show that Descartes was wrong: we can in fact be mistaken about the content of our mental world; the self-transparency of the mind is an illusion. Similarly, patients with Cotard syndrome, otherwise entirely lucid, passionately affirm the most incoherent of statements ('I do not exist'), demonstrating the fragility of the ego and the limits of logical reasoning within human cognition.

In the rest of the section I consider accounts of two additional mechanisms currently thought to contribute to the experience of meaning in the literature: conceptual metaphor theory and perceptual symbols systems. Because these make more specific claims, they should be regarded as more tentative than the notion of mental simulation; nevertheless, a variety of evidence indicates that these are fundamental to semantic processing. I take up these two theories because they offer at least provisional means of explaining how abstract concepts (the subject of the last subsection here) can be encompassed by a theory of embodied semantics – demonstrating that it is not limited to trivial physical behavior but extends into all realms of human activity. As throughout the chapter, so here: though the examples given mainly deal with simple physical objects and motor skills, their implications extend to social interactions and more abstract concepts.

A. Understanding as Embodied Simulation

To say that a concept *consists of* sensorimotor elements is to make a claim about the mental conditions of its use. Take the simple concept DOG. When I hear "I was bitten by a dog today," the activation of the concept DOG consists of the activation of a network of sensorimotor memories: perceptual aspects of the animal (especially in its angry state), the pain of a bite, sharpness of teeth and tightness of grip on the flesh (at any given time only a portion of this extensive network may be activated – see below). As already mentioned, these representational networks bridge sensory modalities and conceptual domains.[421] For instance, Mark Johnson argues the concept of BALANCE, initially established in the context of one's bodily dynamics, is then applied to other domains, informing the notions of "a balanced life" or a "balanced" argument, all the while relying on the basic sense of bodily "balance."[422] While we are not ordinarily aware of the role played by these underlying mechanics, they may impinge on the conscious minds in more cognitively demanding or unusual instances, as an anecdotal example may show: on more than one occasion, while attempting to articulate the challenge of 'disentangling' or 'teasing out' related concepts, I have experienced trace images of untangling a clump of wet noodles, which, at least in my case, gives the

---

logical reasoning, they lack "somatic markers," subtle non-deliberative response impulses, rendering them unable to make the simplest of decisions.

[420] Thomas Metzinger. *Being no one: The self-model theory of subjectivity*. MIT Press, 2004, 224.

[421] For a discussion of how elements from multiple sensory domains may be blended see Vittorio Gallese and George Lakoff. "The brain's concepts: The role of the sensory-motor system in conceptual knowledge." *Cognitive neuropsychology* 22.3-4 (2005): 455-479; Gallese 2003.

[422] Mark Johnson. *The body in the mind: The bodily basis of meaning, imagination, and reason*. University of Chicago Press, 1987.

activity its viscous and frustratingly challenging feel. The claim here is that such images are not random or superficially associated but constitutional; in these ways, the phenomenal aspect of our mental processes is sculpted by the minutia of seemingly unrelated daily activity. The role of motor activity for meaning is even more apparent in the case of gesticulation that accompanies ordinary speech. Brain imaging indicates that neurons involved in motor coordination of the arms are typically recruited for speech production *and* comprehension.[423] Rather than being purely ancillary and aimed at the listener, gesticulation may help to activate memory for the speaker, articulate inchoate meanings, and even facilitate thought organization and flow during speech.[424] We know this in part because restraining gesticulation tends to impair meaning production. That gesticulation has a productive rather than merely a communicative function is also supported by the observation that it is present when listener cannot see the speaker and when alternative (non-organic) gestures are explicitly agreed upon. Thus, when the Occupy participants established certain hand motions for the conduct of their assemblies, these did not supplant but supplemented the natural motions – when members signified approval by twinkling fingers, they often also nodded, and similarly with disapproval.[425] Of course, concepts also encompass propositional information ("dogs are mammals") that are not directly encoded in sensorimotor traces. But such propositions can themselves be recursively unpacked into complex assemblages of sensorimotor traces. In the case of the declarative proposition that "dogs are mammals", the two concepts themselves have sensorimotor basis (as does the "is a type of" relation). Though the concept MAMMAL is fairly thin for most of us, it might consist of the word itself (both its image and its sound) and instances of its use – exchanges like "what is a dog? A dog is a mammal that…."

The experience of meaning or intelligibility – and by extension mental processes more generally – is produced when a network of elements within this sensorimotor substrate is activated within an offline replay, or *simulation.*[426] When I call up a mental image of my car, I am activating the visual experience *offline*, in the sense that there is no corresponding light pattern actually hitting the retina. Similarly, when I imagine a tennis

---

[423] Giacomo Rizzolatti and Laila Craighero. "The mirror-neuron system." *Annual Review of Neuroscience.* 27 (2004): 169-192; Ingo Gerrit Meister, et al. "Motor cortex hand area and speech: implications for the development of language." *Neuropsychologia* 41.4 (2003): 401-406.

[424] Susan Goldin-Meadow. "The role of gesture in communication and thinking." *Trends in cognitive sciences* 3.11 (1999): 419-429: 426-7; Gallagher 2005, ch. 5. In fact, there are now strong indications that language evolved from manual gestures rather than animal vocalizations, so that speech may be best thought of as phonetic gesticulation (Michael C. Corballis. "The Evolution of Language: From Hand to Mouth" in *Evolutionary Cognitive Neuroscience* (2007): 403: 413-4; G.W. Hewes. "Primate communication and the gestural origin of language." *Curr. Anthropol.* 14 (1973), 5–24; M. Donald. *Origins of the Modern Mind: Three Stages in the Evolution of Culture and Cognition*, (1991, Harvard University Press).

[425] THECONCERTorg. "Direct Democracy Part 2 @ Occupy Wall Street - Facilitation Training for General Assembly's." Online video. *Youtube.com*. Youtube. Oct 24, 2011. http://www.youtube.com/watch?v=qXT2_aka60A. Accessed March 4, 2013.

[426] Lawrence W. Barsalou. "Perceptual symbol systems." *Behavioral and brain sciences* 22.04 (1999): 577-660; Lawrence W. Barsalou. "Grounded cognition." *Annu. Rev. Psychol.* 59 (2008): 617-645; W. Kyle Simmons, et al. "fMRI evidence for word association and situated simulation in conceptual processing." *Journal of Physiology-Paris* 102.1 (2008): 106-119; Paula M. Niedenthal, et al. "Embodiment in attitudes, social perception, and emotion." *Personality and Social Psychology Review* 9.3 (2005): 184-211; Ignatow 2007.

stroke, my arm does not actually move – yet much of the same neural circuitry that would be engaged in real time in seeing, processing and responding to the image – or moving the arm and processing the accompanying haptic and proprioceptive input – is recruited by the simulation process.[427] Importantly, the claim is that mental simulation is involved not just in recall and imagination but in language and thought generally, though it typically remains below the threshold of conscious awareness. To consciously entertain the concept X is to carry out partial simulations of experiences of perceiving X, doing X, handling X, feeling X, etc. Mental events from the sensation of rhythm to the concept of causality to the normative force of moral dispositions like guilt are at least in part literally *constituted by* simulations of the movements and related sensations of tapping the foot rhythmically, moving objects in space, and facial expressions of guilt, respectively.

Ontologically, these simulations are informational processes realized in the brain as sequences of activations of particular neural assemblies, or "simulators." Because simulations are only fragmentary representations of actual experiences, many of their aspects can be adjusted or fleshed out as circumstances require. The simulator for the CAR concept can therefore produce infinitely many instantiations, each one a variant of the underlying schematic concept, as I think about cars or observe the ones around me. But even everyday tangible concepts involve such extensive amounts of information that the mind could not possibly carry out full simulations of a concept every time one is used, even subconsciously. Although the details of these processes are only beginning to be understood, it appears a number of heuristics are automatically engaged, in some cases obviating both the simulation of the entire concept and its presence in phenomenal consciousness. First, simulators replicate the hierarchical structure of complex concepts. The CAR concept might have distinct representations for spatial regions of doors, wheels, antennas, gas caps, etc., each of which can itself be a structured concept. A cursory simulation would only activate the region most frequently processed in the past or those that are currently the subjects of focal attention.[428] Second, in many instances, superficial word associations may suffice, avoiding simulation of the concept altogether.[429] Third, mental proxies can stand in for commonly referenced complex clusters of meaning to avoid activating the entire simulator. As Wittgenstein noted we ordinarily talk without the *meaning* of every word and name coming into our minds. If I am asked about my plans for the weekend, two things may happen. If I haven't recently thought about it, the question will trigger a subconscious cascade of concepts of time, calendar operation,

---

[427] Thus, studies have shown that imagining the repetition of a particular motion sequence can entrench muscle memory almost as well as physically carrying it out. (Dan Hague and Douglas Hunter, *The Self-Coached Climber*, 2006. Mechanicsburg, ch.6)

[428] Barsalou 1999.

[429] Karen Solomon and Lawrence Barsalou found that in property verification tasks, where subjects had to decide if one word was a component of the other (e.g., house-chimney), pairs that were completely unrelated (bicycle-chin) were mentally processed differently from those that were associated but did not have the required relationship (car-garage) (Karen Olseth Solomon and Lawrence W. Barsalou. "Perceptual simulation in property verification." *Memory & Cognition* 32.2 (2004): 244-259). The authors reasoned that in evaluating unrelated words, subjects simply relied on the absence of a verbal association, while pairs of associated words demanded the more intensive evaluation that a simulation of the concept allows. Simmons and colleagues found a similar mixture of reliance on language and simulation in fMRI experiments (Simmons et al. 2008). Compare the newspaper headlines "Dog bites man" and "Man bites dog." The former, a familiar enough combination, passes through relatively undigested. The latter, probably less familiar, will draw more attention and require more extensive processing.

plan-making, etc., in the course of retrieving and formulating a response. But if I have, I can give an almost automatic, "cached," response.

The theory of meaning as sensorimotor simulation (under some description) is currently the primary alternative to the computationalist notion of meaning as symbolic processing, which has been dominant through most of the 20th century. Hence one argument in its favor is simply its Kuhnian explanatory superiority over its predecessor. It can speak much better to various idiosyncrasies in human cognition than the symbolic processing model. But there are also a number of direct reasons to embrace it. One such reason is greater evolutionary plausibility. As Jesse Prinz points out, it is unlikely that "evolved cognitive systems [would use] amodal symbols to represent concrete interactions when [they] could use the very perceptual states that are caused by those interactions."[430] Given that evolution commonly appropriates existing organs for new functions, rather than "creating" new ones from whole cloth[431], it is far more plausible that the more recent higher cognitive functions directly recruited existing sensorimotor systems in the brain through the well documented process of "neural reuse,"[432] rather than evolving a wholly new apparatus of an intermediate symbolic layer. And, in fact, numerous neuroimaging studies have documented that the same brain areas generally known to be responsible for midlevel sensorimotor processes are activated not only during manual manipulation, interaction, and visual identification, but also in verbal access and conceptual processing of a particular category of objects (e.g., tools).[433] Such overlapping of function in online and offline processing of a stimuli has been found with respect to a wide variety of objects, including body parts, body part-specific motions,

---

[430] Prinz, *Furnishing the mind,* 149.

[431] Cosmides and Tooby 1992.

[432] Anderson, Michael L. "Neural reuse: A fundamental organizational principle of the brain." *Behavioral and Brain Sciences* 33.4 (2010): 245-313) describes four recent formulations of the neural reuse concept. The idea extends the more established notion of "neural plasticity," where brain areas can adapt to new roles in response to localized brain injury. Neural reuse challenges the prevailing modular view of the brain that conveniently mirrored the imagined separation of mental functions, for instance between perception and cognition, or movement planning and execution. For a high-level discussion of the specific argument that abstract cognitive functions are scaffolded on top of more basic sensorimotor modules see Lawrence E. Williams, Julie Y. Huang, and John A. Bargh. "The scaffolded mind: Higher mental processes are grounded in early experience of the physical world." *European Journal of Social Psychology* 39.7 (2009): 1257-1267.

[433] Some of the more influential studies include Guido Gainotti. "A meta-analysis of impaired and spared naming for different categories of knowledge in patients with a visuo-verbal disconnection." *Neuropsychologia* 42.3 (2004): 299-319; Friedemann Pulvermüller and Luciano Fadiga. "Active perception: sensorimotor circuits as a cortical basis for language." *Nature Reviews Neuroscience* 11.5 (2010): 351-360; Rutvik H. Desai, et al. "Activation of sensory–motor areas in sentence comprehension." *Cerebral Cortex* 20.2 (2010): 468-478; Christian Gerlach, Ian Law, and Olaf B. Paulson. "When action turns into words. Activation of motor-based knowledge during categorization of manipulable objects." *Journal of Cognitive Neuroscience* 14.8 (2002): 1230-1239. For helpful recent reviews see Barsalou, "Grounded Cognition"; and Alex Martin. "The representation of object concepts in the brain." *Annu. Rev. Psychol.* 58 (2007): 25-45; On the other hand, in their broad review of neuro-imaging studies of semantic processes, Binder and colleagues found a strong pattern of neural activation in "heteromodal" areas (that are not associated with a single sensory mode), lending support to a Fodorian, amodal semantic system (Jeffrey R. Binder, et al. "Where is the semantic system? A critical review and meta-analysis of 120 functional neuroimaging studies." *Cerebral Cortex* 19.12 (2009): 2767-2796).

tools, and even food.[434] Clinical work demonstrates the same pattern.[435] Confined neurological damage in sensorimotor areas often leads to impairment of narrowly circumscribed conceptual knowledge and episodic memories. This idea of neural reuse also explains the surprising homomorphisms between sensory and conceptual domains such as the inclination to associate high pitch of a tone with smallness of an object or a narrowness of grip[436], the common association of certain phonetic profiles with particular physical shapes, and Wittgenstein's suggestion of seeing the letter "e" as yellow and Wednesday as "fat."[437]

Showing that a given brain area is involved in both perception of X and reasoning about X does not prove that the latter activity consists of sensorimotor *simulations* of X, especially since present neuro-imaging capabilities and clinical observations lack the granularity to peek inside large-scale neural assemblies. The fact that a brain region is involved in multiple activities does not in itself mean that they are functionally related; reuse may be limited to the neural level, not extending to informational and functional levels of description. But aside from the fact that the empirical observations of correlation already cast strong doubt on theories of symbolic (amodal) semantics, according to which conceptual processing is independent of sensorimotor experience[438], other evidence indicating that simulation has a key role in semantics is rapidly mounting.[439] In particular, extensive behavioral studies have observed a number of effects predicted by the sensorimotor simulation theory of semantics but not by the symbolic semantics theory. If the same mechanism is involved in conceptual and sensorimotor processing of a category, we should observe bidirectional interaction between perceptual stimuli and motor activity on one hand, and related semantic activity

---

[434] The timing and patterns of neural activation in such tasks point to the importance of the motor system in meaning comprehension (Olaf Hauk, Ingrid Johnsrude, and Friedemann Pulvermüller. "Somatotopic representation of action words in human motor and premotor cortex." *Neuron* 41.2 (2004): 301-307; Linda L. Chao and Alex Martin. "Representation of manipulable man-made objects in the dorsal stream." *Neuroimage* 12.4 (2000): 478-484. For a recent survey see Christian Keysers, Jon H. Kaas, and Valeria Gazzola. "Somatosensation in social perception." *Nature Reviews Neuroscience* 11.6 (2010): 417-428.

[435] For a list of such studies see Paula M. Niedenthal, et al. "Embodiment in attitudes, social perception, and emotion." *Personality and social psychology review* 9.3 (2005): 184-211, 188.

[436] Sylvan Kornblum and Ju-Whei Lee. "Stimulus-response compatibility with relevant and irrelevant stimulus dimensions that do and do not overlap with the response." *Journal of Experimental Psychology: Human Perception and Performance* 21.4 (1995): 855.

[437] Ludwig Wittgenstein. 1998. *Philosophical Investigations.* Tr. G.E.M. Anscombe. Oxford, 216 (for a discussion of these examples see Michel Ter Hark. "Coloured vowels: Wittgenstein on synaesthesia and secondary meaning." *Philosophia* 37.4 (2009): 589-604). Even more strikingly, Richardson and colleagues found that people have similar intuitions about perceptual aspects of even abstract words, for instance their spatial orientation, and hypothesizing that the effect occurs because word comprehension activates the same spatial and visual schemas (Daniel C. Richardson, et al. "Spatial representations activated during real-time comprehension of verbs." *Cognitive science* 27.5 (2003): 767-780). For a wide-ranging discussion of such synesthetic phenomena and its implications for cross-domain basis of concepts see V.S. Ramachandran. *A brief tour of human consciousness: from impostor poodles to purple numbers.* 2005. Plume.

[438] As Solomon and Barsalou ("Perceptual simulation") point out, the amodal approach theoretically *can* provide *post hoc* explanations for most of these findings**,** but because such explanations do not yield *a priori* predictions and quickly become quite convoluted, they are not very compelling.

[439] For an expanded discussion of this evidence beyond what can be provided here see Germund Hesslow. "The current status of the simulation theory of cognition." *Brain research* 1428 (2012): 71-79.

on the other, even when the concept is not being consciously accessed. Thus we would expect a person to more readily employ or act on a concept after one of its sensorimotor components is primed: after hearing a snarling sound while walking down the hall, a person should more quickly identify a dog than a cat in an image recognition task. Conversely, carrying out a conceptual task (for example, evaluating the relatedness of two household objects), should facilitate related behaviors and perceptual recognition. Alternatively, activating a competing concept should interfere with the target concept and impair the response.

Such effects have been found in a variety of contexts. In a classic study, John Bargh and colleagues carried out several experiments where subjects' behavior was found to be subconsciously influenced by the words encountered in their ostensive task of simple grammar exercises.[440] Unknown to them, many of the words in each task were primes for a specific concept ("grey", "rigid", "helpless" were intended to prime for the concept "elderly"; "bother", "disturb", "intrude" were expected to prime "rude", and so on). In each case, the subjects were subsequently more likely to behave in ways associated with the concept. In the "elderly" case, subjects consistently walked more slowly out of the room; in the "rude" case, subjects were more likely to interrupt an experimenter's conversation to ask a question than control subjects or those exposed to "polite" words. In another series of experiments demonstrating that conceptual stimuli can prime perception, Rolf Zwaan and colleagues showed that reading a vignette that described a behavior of a bird accelerated identification of a bird's image – but only if the picture showed the same behavior as in the preceding vignette.[441]

Other studies have demonstrated that perceptual or behavioral stimuli can prime semantic concepts. One representative experiment found that exposure to the material environment common to business activities (such as conference tables or briefcases), particularly in the absence of other normative cues, prompted subjects to subsequently prefer competition over cooperation in laboratory experiments (presumably, the business items activated the concept of capitalist competition).[442] Motor activity also influences related semantic processing, such that performing or even imagining the performance of a physical action has been shown to facilitate comprehension of literal and metaphorical phrases that involve that action. Arthur Glenberg and Michael Kaschak asked experiment participants to carry out simple motions such as opening or closing a drawer and found that comprehension of sentences was faster if the action described in a

---

[440] John A. Bargh, Mark Chen, and Lara Burrows. "Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action." *Journal of personality and social psychology* 71.2 (1996): 230.

[441] Rolf A. Zwaan, Robert A. Stanfield, and Richard H. Yaxley. "Language comprehenders mentally represent the shapes of objects." *Psychological Science* 13.2 (2002): 168-171; Robert A. Stanfield and Rolf A. Zwaan. "The effect of implied orientation derived from verbal context on picture recognition." *Psychological science* 12.2 (2001): 153-156. In a similar experiment, a subject was presented with a sentence describing an action (a ball moving away), followed by a pair of images that either match or conflict with the sentence. Coincidence of the two stimuli produced faster response times, which is the expected result if in reading a sentence one constructs a simulation to represent its meaning, thereby priming for that interpretation of the visual stimuli (Rolf A. Zwaan, et al. "Moving words: Dynamic representations in language comprehension." *Cognitive Science* 28.4 (2004): 611-619).

[442] Aaron C. Kay, et al. "Material priming: The influence of mundane physical objects on situational construal and competitive behavioral choice." *Organizational Behavior and Human Decision Processes* 95.1 (2004): 83-96.

sentence was compatible with the direction of a participant's action than if the two conflicted.[443] Nicole Wilson and Raymond Gibbs found a similar effect for actions that were merely imagined.[444] Other experiments found that simple motions can even prime attitudes associated with the action. In one such experiment, testing the conceptual metaphor that maps motion towards oneself to attitudes of acceptance and approval and motions away from oneself to rejection, subjects were asked to "rate" target objects while either pushing or pulling another object (a drawer).[445] Bearing out the experimenters' predictions, subjects expressed greater approval while executing a pulling motion than those seen during pushing motions. Jens Förster and Fritz Strack similarly found that participants who were induced to nod while reading positive and negative adjectives remembered more of the positive ones, while those who shook their head remembered fewer of them.[446]

Conversely, task interference experiments have found that presentation of a stimulus that competes with a target concept's constitutive elements, particularly through the visual domain, tends to suppress the entire target concept, indicating that same neurophysiological processes are responsible for both sensorimotor and semantic aspects of a given concept.[447] A phenomenon known as the "Stroop effect," discovered in the 1930's, first confirmed this prediction. In the canonical version of the experiment, it was found that it is easier to read off a name of a color written in that color than in a different one, presumably because the appearance and the semantic meaning of the word are not in fact entirely separate. If different, the color of the lettering activates a conflicting color *concept* and interferes with the name of the color being read.[448] In another classic study, Richard Simon showed that responding to an image of the index finger with the middle finger takes longer than doing so with the index finger, presumably because processing the image involves activation of index finger motion schemas and inhibits middle finger motion schemas.[449] Yet other experiments have found that the timing of the prime (such as a word on the screen) determines whether the prime interferes with or boosts an associated motion response.[450] Finally, if concepts are preserved in their original sensory

---

[443] Arthur M. Glenberg and Michael P. Kaschak. "Grounding language in action."*Psychonomic bulletin & review* 9.3 (2002): 558-565; see also Richardson et al. 2003. Feldman (2006, ch. 7) and Ignatow (2007) contain insightful discussion of such experiments.

[444] Nicole L. Wilson and Raymond W. Gibbs Jr. "Real and imagined body movement primes metaphor comprehension." *Cognitive Science* 31.4 (2007): 721-731. Jonathan Winawer and colleagues also found that the same neural circuits are engaged by (comprehension of) imagined and implied motion as actual motion (Jonathan Winawer "Common mechanisms for processing of perceived, inferred, and imagined visual motion." *Journal of Vision* 5.8 (2005): 491-491).

[445] John T. Cacioppo, Joseph R. Priester, and Gary G. Berntson. "Rudimentary determinants of attitudes: II. Arm flexion and extension have differential effects on attitudes." *Journal of personality and social psychology* 65.1 (1993): 5-?, cited in Feldman 2006.

[446] Jens Förster and Fritz Strack. "Influence of overt head movements on memory for valenced words: A case of conceptual-motor compatibility." *Journal of Personality and Social Psychology* 71.3 (1996): 421).

[447] For a recent review of such studies see Mike Tucker and Rob Ellis. "Action priming by briefly presented objects." *Acta psychologica* 116.2 (2004): 185-203.

[448] J. Ridley Stroop, "Studies of interference in serial verbal reactions." *Journal of Experimental Psychology,* 1935, Vol 18, 643–662

[449] J. Richard. Simon. "Reactions toward the source of stimulation." *Journal of experimental psychology* 81.1 (1969): 174; Gibbs 2005: 60.

[450] Véronique Boulenger, et al. "Cross-talk between language processes and overt motor behavior in the first 200 msec of processing." *Journal of cognitive neuroscience* 18.10 (2006): 1607-1615.

modalities, then mentally switching between concepts with extensions primarily into different modalities should take longer than switching between "similarly different" concepts that primarily draw on the same sensory modality. Again this is the observed result.[451]

Admittedly, the evidence presented so far does not establish that sensorimotor processing is directly and exclusively responsible for semantics (the claim of the strong embodied semantics doctrine). The observed effects on perceptions and behaviors could have been mediated by associations of sensory memories with symbolic cores of concepts. However, preliminary studies show that the brain activation in somatosensory areas during semantic tasks is *immediate* (within 250ms), *automatic* (not eliminated by distraction) and *functionally necessary* (magnetic stimulation and clinical deficits of the brain areas in question differentially affect those processes), indicating that the activation is not secondary but integral to comprehension.[452] To further strengthen this claim I now consider two theories that describe how concepts can be built directly out of sensorimotor processing.

B. Elements of Meaning

Simulacrum: perceptual symbols

"Perceptual symbols systems" (PSS) is one such theory, developed by Lawrence Barsalou's team at Emory University.[453] Since 1999, PSS has become the leading account of neurosemantics within second generation cognitive science. PSS theory is an updated version of Hume's imagism, informed by extensive evidence that support its various theses individually, which is, unfortunately, too fragmented to review here.[454]

A "perceptual symbol" is an activated representation of a sensory-motor state in the brain. Perception here is understood broadly, including proprioception and introspection (such as traces of a particular emotional state). Although they do derive largely from consciously registered experiences, perceptual symbols are typically not phenomenally present, but are rather informational structures, "records of the neural states that underlie perception,"[455] in the same way that a computer memory chip contains magnetic patterns that encode a captured image. When I read the word 'tiger,' a partial

---

[451] In category verification experiments, where subjects must approve or reject pairs of words that connect an object and its sensory property ("blender – loud"), subjects are slower to process pairs with properties in a different modality from the previous pair (Diane Pecher, René Zeelenberg, and Lawrence W. Barsalou. "Verifying different-modality properties for concepts produces switching costs." *Psychological Science* 14.2 (2003): 119-124. See also Lawrence W. Barsalo , et al. "Multimodal simulation in conceptual processing," In W. Ahn, R. Goldstone, B. Love, A. Markman, & P. Wolff (Eds.), *Categorization inside and outside the lab: Festschrift in honor of Douglas L. Medin.* Washington, DC: American Psychological Association. 2005. 249-270.

[452] Friedemann Pulvermüller. "Meaning and the brain: The neurosemantics of referential, interactive, and combinatorial knowledge." *Journal of Neurolinguistics* 25.5 (2012): 423-459.

[453] Barsalou 1999; Lawrence W. Barsalou, et al. "Grounding conceptual knowledge in modality-specific systems." *Trends in cognitive sciences* 7.2 (2003): 84-91.

[454] For surveys of supporting evidence see Barsalou 1999, Barsalou et al 2003, Barsalou 2008, Prinz 2004; and Giovanni Pezzulo and Gianguglielmo Calvi. "Computational explorations of perceptual symbol systems theory." *New Ideas in Psychology* 29.3 (2011): 275-297.

[455] Barsalou 1999, 582-3.

image of a tiger may or may not flash in my mind, but in comprehending the meaning, a configuration of neurons in the visual system that specifies its overall shape (e.g., they would be activated in actually seeing that shape) will be subconsciously activated. Perceptual symbol do not capture exact duplicates of the original sensorimotor state. Selective attention captures a simplified and abbreviated (schematic) version of the original input through a variety of heuristics such as gestalt perception, whereby points in a line may be remembered as a continuous line.[456] For example, TIGER may be represented in part by an approximate shape of the animal and an "image" of its striped fur, rather than a whole image of a specific tiger with a specific set of stripes actually observed on some occasion. This schematic nature means that perceptual symbols are not tied to objects in the world and need not represent the same object across multiple contexts: "a schematic [image] of a generic skyscraper could stand for the Empire State Building, for skyscrapers in general, or for clothing made in New York City."[457] As a result, Barsalou argues perceptual symbols are infinitely generative: arbitrary simulations may be constructed by different combinations of the perceptual symbols I possess, meaning that PSS can extrapolate concepts out of concrete instances.[458] Indeed, Barsalou speculates that much of human creativity stems from simulations of novel combinations of perceptual symbols (see section V.B below).

Perceptual symbols that occur together (e.g., the appearance and sounds of a car next to me) become integrated into PSS frames in a way that mirrors the relation of the phenomena in the environment.[459] Thus the CAR frame may be hierarchically composed of perceptual symbols of its wheels, body shapes, driving experiences, and so on – including relevant linguistic descriptions and fragments.[460] A simulation of the frame (via activation of the underlying neural networks) constitutes an activated concept. If I hear a car horn, or if my mind wanders to the car registration I have yet to pay, the remainder of the concept frame will be activated in working memory by neurons that bridge disparate components of the simulator assembly in the brain, leading to a mental instantiation of CAR.[461] Whole situations, scenes, and events may be stored in this form of recursive hierarchy. Thus a generic "purchase" event may be organized around the

---

[456] See Barsalou 1999, §2.4.1 for a discussion and references.

[457] Ibid., 584-5.

[458] Ibid., §3.1.

[459] Ibid, 590. Unlike earlier conceptions of frames (for a review of these see Monika A. Bednarek. "Frames revisited—the coherence-inducing function of frames." *Journal of pragmatics* 37.5 (2005): 685-705), these are specific to personal experience, combine multiple sensory modalities, and vary widely between cultures and even within them.

[460] Barsalou elaborates this as follows,

> "As simulators for words develop in memory, they become associated with simulators for the entities and events to which they refer. Within the simulator for a concept, large numbers of simulators for words become associated with its various aspects to produce a semantic field that mirrors the underlying conceptual field… On recognizing a word, the cognitive system activates the simulator for the associated concept to simulate a possible referent…. Conversely, during language production, the construction of a simulation activates associated words and syntactic patterns, which become candidates for spoken sentences designed to produce a similar simulation in a listener." (Barsalou 1999, 592).

[461] Barsalou et al 2003; Antonio R. Damasio. "The brain binds entities and events by multiregional activation from convergence zones." *Neural Computation* 1.1 (1989): 123-132.

elements of an acquired object, payment, the actors involved, etc., and can be called forth through any of these entry points.

For more complex concepts, situational frames integrate large networks of perceptual symbols.[462] High level concepts (CHAIR, VOTING) are associated and stored with schematic versions of associated settings (offices, living rooms, classrooms; voting booths, ballots – respectively). Subsequently, situations and concepts activate each other: entering an office activates a CHAIR simulator and vice versa. The more typical a situation is, the faster it is recognized, presumably because there are more triggers that can activate the situational frame.[463] Recognizing a situation also primes the associated bodily action (e.g., smiling in a comedy hall). Spontaneous inferences and co-activation effects within situations glue complex cognitive constructs like practices together.

The situational frame will guide the simulation of component concepts (a chair simulated in an office will be quite different from those in a living room or bar). Because meaning is situation-dependent in this way, the environment within which a practice is carried out and acquired has a great impact on it: learning medicine in a military hospital will lead to a markedly different conception of the practice than doing so in a university hospital. Concepts are most semantically potent in their customary contexts and carrying out a familiar activity in a novel situation may be more difficult or even discomfiting. People evidence a surprising level of difficulty in transferring skills to different domains and situations, even between isomorphic tasks. For instance, Jean Lave found that math problems analogous to those solved easily in everyday life (e.g., scoring in bowling) often appear bewildering to students in classrooms, outside their ordinary context.[464] In a recent broad survey of the topic, Barnett and Ceci concluded that spontaneous (uncoached) application of skills learned in one domain or context to a different one is quite rare, confirming the importance of *in situ* learning.[465] The evident difficulty of generalizing skills to new situations suggests that even apparently self-contained, descriptive and algorithmic knowledge and skills draw extensively on situational cues.

---

[462] Yeh and Barsalou 2006; Barsalou et al 2003; Lawrence W. Barsalou and Katja Wiemer-Hastings. "Situating abstract concepts." *Grounding cognition: The role of perception and action in memory, language, and thought* (2005): 129-163. "Situation" is here understood in concrete terms, as "a region of perceived space that surrounds a focal entity over some temporal duration, perceived from the subjective perspective of an agent" (Yeh and Barsalou 2006, 352).

[463] Ibid. The authors point to a correlation between the number of situational markers evident in an image and speed of recognition in experiments. For instance, "the scene schema for a living room specifies that such rooms are likely to include a sofa, that a coffee table should appear in front of the sofa, and that the sofa should be larger than the coffee table" (365). The more such relationships appear in an image, the faster it will be identified as a living room.

[464] Lave's *Cognition in practice: Mind, mathematics and culture in everyday life* (Cambridge University Press, 1988) is the canonical – and controversial – work on this topic; see also John Seely Brown, Allan Collins, and Paul Duguid. "Situated cognition and the culture of learning." *Educational researcher* 18.1 (1989): 32-42 and Sylvia Scribner. "Thinking in action: Some characteristics of practical thought" in *Practical intelligence: Nature and origins of competence in the everyday world* 13 (1986).

[465] Susan M. Barnett and Stephen J. Ceci. "When and where do we apply what we learn?: A taxonomy for far transfer." *Psychological bulletin* 128.4 (2002): 612-637.

Simulacrum: Schemas and metaphors

Although perceptual symbols include bodily motions, some concepts are better viewed as motor or spatial schema. Our understanding of space and physical movement turns out to be captured by a small number of such schemas (estimated to be in the low hundreds), which fall into three types – topological, orientational, and force-dynamic.[466] The former includes relationships like *support*, and *contact*[467], while the force-dynamic *source-path-end* schema captures the very basic idea of directed motion and its three distinct stages. Schemas are acquired through ordinary experiences of moving through, standing on, and holding elements of the environment.[468] They lend structure and predictability to perception of space and motion in the world by permitting inferences. Thus, according to the *source-path-end* schema, to reach the *end*, one must traverse all the points along the *path*: in opening a door it is at one point half-open, possibly hitting someone standing in the way (more complicated schema is brought in to account for shortcuts and the like). Similarly, once a force-dynamic schema of walking is applied to a person's movement, his position in the next second becomes predictable. Crucially, Jerome Feldman points out that the schemas are agent centric. The force exerted by a book on the table on which it appears is understood through personal experience of holding (a heavy) object.

In addition to direct invocations, these concrete schemas are exported by cognitive metaphor into other domains. Thus a force-dynamic "executive" schemas like pushing or pulling serves as the basis for a rich repertoire of metaphorically related actions ("I tried to offer my support but he pushed me away"). Even relatively tangible concepts are enriched through mappings from concrete source domains. Thus, the concept of AFFECTION gathers much of its semantic force from metaphors like AFFECTION is WARMTH, which associates the experience of warmth in the temperature domain with the somewhat less tangible (though still directly embodied) states in the emotional domain.[469] The metaphor SPEAKING is MOVING informs our understanding of speech and communication ("he stumbled/tripped over his words", "he took a long detour in his lecture", "she finally reached her conclusion," "eventually, he got lost in his argument"). Conceptual metaphor theory claims that our understanding of the world beyond immediate experience (including concepts like causality, time, and society) largely consists of such "inference preserving cross-domain mappings" drawing on bodily existence.

---

[466] Feldman 2006, 137. Feldman attributes this classification to Len Talmy. See also Lakoff and Johnson 1999, ch. 3. An early account of motor schemas that argues affordances are cues for activation of those schemas appears in Marc Jeannerod. "The representing brain: Neural correlates of motor intention and imagery." *Behavioral and Brain sciences* 17.02 (1994): 187-202.

[467] See Lakoff and Johnson (1999, 35) for a longer list and further references. Schemas are routinely combined, as captured by linguistic propositions. The surprisingly complex English *on* schema combines *above*, *support*, and *contact*, while the German 'an' includes only *contact* and *support*.

[468] Schemas may also be formed purely through observation, as they are evidenced in 5- to 6-month old infants (Jean M. Mandler. "The spatial foundations of the conceptual system." *Language and cognition* 2.1 (2010): 21-44).

[469] Lakoff and Johnson 1999, ch. 4.

The core insight of metaphor theory is that early in a child's life, different modalities of a particular experience may not be differentiated, allowing bindings between different domains to form automatically during cognitive development:[470]

> "[F]or a time children do not distinguish between the two [aspects of experience] when they occur together. For example, for an infant, the subjective experience of affection is typically correlated with the sensory experience of warmth, the warmth of being held. During the period of conflation, associations are automatically built up between the two domains. Later, during a period of *differentiation*, children are then able to separate out the domains, but the cross-domain associations persist. These persisting associations are the mappings of conceptual metaphor that will lead the same infant, later in life, to speak of 'a *warm* smile,' 'a *big* problem,' and 'a *close* friend.'"[471]

The SIMILARITY is PROXIMITY metaphor, for example, probably arises from the tendency of similar things to occur together in our environment.[472] In a grocery store, all apples are in one place, all oranges in another. Perhaps more fundamentally, location is a highly salient attribute of an object; objects close together are by definition similar in an important way. Since simultaneous activation of neural networks is known to encourage growth of connections between them (ensuring that activation of one area will lead to activation of the other in the future), once such a cross-domain mapping has been established, spatiomotor representations can be activated automatically during abstract, nonspatial reasoning, as in the case of evaluating non-spatial similarity. As Gallese and Lakoff explain, "the sentence *He grasped the idea* should activate the sensory-motor *grasping-related regions* of the brain. Similarly, a metaphorical sentence like *They*

---

[470] Christopher Johnson. "Metaphor vs. conflation in the acquisition of polysemy: The case of see." *Amsterdam Studies in the Theory and History of Linguistic Science Series 4* (1999): 155-170; Christopher Johnson. "Learnability in the acquisition of multiple senses: SOURCE reconsidered." *Proceedings of the Annual Meeting of the Berkeley Linguistics Society*. Vol. 22. No. 1. 2012. Along these lines Friedemann Pulvermuller has proposed that "Hebbian learning produces embodied content: activity related to a word form occurs alongside sensory-motor activity corresponding to the word's referent, therefore, the two become associated, and sensory-motor activations become the semantic representation for a particular word" (Meteyard and Vigliocco 2008).

Primary metaphors may also derive from the structural similarity of domains: experience in a physical domain can directly generate inferences about homologous properties in the abstract domain (Stephen J. Flusberg, et al. "A connectionist approach to embodied conceptual metaphor." *Frontiers in Psychology* 1 (2010). For example, the structural similarity of temporal and spatial domains, combined with the bias toward neural re-use, suggest that the representations underlying the concepts will be implemented by neural networks that are not only similar but actually overlapping, so that when interpreting relative motion, if at a given moment a person perceives *oneself* as moving through space, rather than seeing objects move around *her* stationary position (an ego-moving perspective), she will tend to adapt the same orientation to temporal reasoning ("I am up coming up on 40" vs. "middle age will come soon enough"). Regarding this close relationship between time and space see Lera Boroditsky and Michael Ramscar. "The roles of body and mind in abstract thought." *Psychological Science* 13.2 (2002): 185-189; Lera Boroditsky. "Does language shape thought?: Mandarin and English speakers' conceptions of time." *Cognitive psychology* 43.1 (2001): 1-22; Daniel Casasanto and Lera Boroditsky. "Time in the mind: Using space to think about time." *Cognition* 106.2 (2008): 579-593.)

[471] Lakoff and Johnson 1999, 46.

[472] Daniel Casasanto. "Similarity and Proximity: When Does Close in space mean Close in mind?" *Memory & cognition* 36.6 (2008): 1047-1056.

kicked him out of class should activate the sensory-motor *kicking-related regions* of the brain."[473] This indeed appears to be the case. Véronique Boulenger and colleagues found that the processing of sentences that included metaphorical uses of verbs elicited neural activation in the somatotopic areas of the brain corresponding to the verb in question: processing "She grasped the idea" stimulated the arm-related area while processing "He kicked the habit" stimulated the leg-related area.[474]

Such minimally simple, "primary" metaphors are also estimated to number in the low hundreds.[475] But most conceptual metaphors we encounter are "compound" metaphors[476], assembled out of primary metaphor through conceptual integration or "blending."[477] To borrow an example from Gibbs and colleagues, the two metaphors STRUCTURE is PHYSICAL STRUCTURE and INTERRELATED is INTERWOVEN can be applied to create the compound metaphor THEORIES are FABRICS, allowing us to infer, for example, that a theory can be unravel by tugging at a "loose end."[478] The precise meaning that emerge from such blends is not found in either primary metaphor precursor. A surgeon referred to as a "butcher" is characterized by a crude incompetence, even though that property is intrinsic to neither surgeon nor butcher individually.[479] Whereas primary metaphors are nearly universal, arising from the common experience of encountering the world as a human infant, complex metaphors are much more culturally specific and fluid.[480] Compound metaphors couple motor schemas to abstract concepts, carrying over the former's rich embodied semantics and inference patterns. The study of international relations, for instance, is replete with motor schemas – maintaining balance, blockade vs. liberation, penetration/intervention, center vs. periphery, (territorial) containment, and diplomatic ties.[481] The vibrant images these concepts invoke (consider, "the enemy forces penetrated our defenses and broke the back of the resistance") are born

---

[473] Gallese and Lakoff 2005, 18. Similarly the concept QUANTITY is initially perceived in things like height of fluid in a vessel or pile of objects – and only later distinguished from the physical property of height.

[474] Boulenger et al. 2009.

[475] Another important primary metaphor is CAUSES are PHYSICAL FORCES (where children perceive physical motion or transformation through application of physical force). See Lakoff and Johnson (1999, 50-4) for a representative list. Highly relevant to liberal political philosophy is the similar derivation of FREEDOM is FREEDOM FROM PHYSICAL RESTRAINT with all of its deconstructive implications.

[476] The compound metaphor construct helps explain why only certain properties are carried over in the mapping and how two apparently unrelated domains may be connected, such as the LOVE is a JOURNEY metaphor (Joseph Grady, Sarah Taub, and Pamela Morgan. "Primitive and compound metaphors" In *Conceptual structure, discourse and language* (CSLI Publications, 1996): 177-187).

[477] Gilles Fauconnier and Mark Turner. *The way we think: Conceptual blending and the mind's hidden complexities*. Basic Books, 2003; Turner 2001.

[478] Raymond W. Gibbs, Paula Lenz Costa Lima, and Edson Francozo. "Metaphor is grounded in embodied experience." *Journal of Pragmatics* 36.7 (2004): 1189-1210: 1197.

[479] Turner 2001.

[480] Comparative linguistics also tells us that languages as dissimilar as Chinese and English, even sign language, have parallel primary metaphors (e.g., the gesture for 'past' being to point behind the speaker), strongly suggesting that these metaphors are rooted in basic bodily experience (Ning Yu. "The eyes for sight and mind." *Journal of Pragmatics* 36.4 (2004): 663-686; Christoph Neumann. "Is metaphor universal? Cross-language evidence from German and Japanese." *Metaphor and Symbol* 16.1/2 (2001): 123-142; Edward Slingerland also explores the conceptual metaphors involved in constructing the self in classical Chinese texts (Edward Slingerland. *Effortless action: Wu-wei as conceptual metaphor and spiritual ideal in early China*. Oxford University Press, 2003).

[481] Gibbs 2005, 108-110.

of their visceral references. The strong claim of metaphor theory is that most of the semantic substance of concepts is metaphorical, wrapping a skeletal structure of literal meaning. For instance, the western concept of LOVE has a literal structure of the emotional experience and physical relationship: the two loving subjects, the beloved object, the emotional peaks and troughs, its onset and end. But the richness of the concept as it lives in the culture and appears in the mind derives from the metaphorical conceptualization of love as "journey, physical force, illness, magic, madness, union, closeness, nurturance, giving of oneself, complementary parts of single object and heat."[482] More abstract concepts like TIME are nearly devoid of direct sensorimotor content and may consist (almost) entirely of metaphor.

It may be tempting to dismiss metaphors as purely linguistic devices without cognitive import. But a variety of evidence indicates that metaphor is not simply a figure of speech, but a mechanism of thinking and understanding.[483] Most of the evidence comes from behavioral experiments and clinical psychology similar to the semantic priming experiments adduced above. Such studies reveal "metaphoric transfer effects," where activating the concrete source domain of a metaphor activates concepts in its abstract target domain and produces "metaphor-consistent changes in how social information is attended to, recalled, interpreted, and used to make judgments."[484] For instance, Lawrence Williams and John Bargh demonstrated the force of the primary metaphor AFFECTION is WARMTH by showing that physically warm stimuli such as a hot cup promote pro-social judgments and behavior.[485] Chen-Bo Zhong and Katie Liljenquist similarly illustrated the connection between physical and moral cleanliness: subjects who were primed with a dirty environment produced more negative moral judgments on an unrelated task, and participants asked to remember their own transgressions were more likely to ask for an antiseptic cloth afterward, suggesting that moral taint was understood through a simulation of physical taint (note that these experiments differentiate metaphor from PSS in that the primes are outside the target concept itself and only relate to it through the metaphor).[486] The prevalence of spontaneous gestures during speech (e.g., imitating a balance scale with one's hands when describing weighing different options of a decision) likewise points toward the

---

[482] Lakoff and Johnson 1999, 71; Zoltán Kövecses. *Metaphor and emotion: Language, culture, and body in human feeling*. Cambridge University Press, 2003.

[483] The question is ripe for confusion since some linguistic metaphors are also cognitive metaphors. Moreover, many are 'dead metaphors' – static idioms that do not spawn new connections between the source target domains but only connect the two concepts in the metaphor. These are learned as units with one's language, rather than derived from personal experience.

[484] Mark J. Landau, Brian P. Meier, and Lucas A. Keefer. "A metaphor-enriched social cognition." *Psychological bulletin* 136.6 (2010): 1045-1067: 1052; Boroditsky and Ramscar, 2002; Casasanto and Boroditsky, 2008; Nils B. Jostmann, Daniël Lakens, and Thomas W. Schubert. "Weight as an embodiment of importance." *Psychological Science* 20.9 (2009): 1169-1174; Joshua M. Ackerma , Christopher C. Nocera, and John A. Bargh. "Incidental haptic sensations influence social judgments and decisions." *Science* 328.5986 (2010): 1712-1715.

[485] Lawrence E. Williams and John A. Bargh. "Experiencing physical warmth promotes interpersonal warmth." *Science* 322.5901 (2008): 606-607.

[486] Chen-Bo Zhong and Katie Liljenquist. "Washing away your sins: Threatened morality and physical cleansing." *Science* 313.5792 (2006): 1451-1452.

importance of metaphor sourced in movement for general cognition.[487] Performing or even imagining certain movements tends to prompt abstract concepts that are understood through metaphorical application of the movement (actual chewing prompts the notion of "chewing" on an idea).[488] Similar studies abound, linking anger to heat[489], power to vertical position[490], and so on.

There could, of course, be many reasons why people associate moral and physical dirtiness – perhaps a dirty environment simply put the participants in a foul mood. Are there reasons to think a stronger relation is at play? There are several. We know from developmental psychology that children as young as two years old are able to make analogies, recognize isomorphisms, and understand scale models, such as the link between feeding a doll and a person, long before they employ metaphors in speech.[491] There is also experimental evidence. Daniel Casasanto constructed a clever a scenario where the embodied and purely linguistic metaphor theories make divergent predictions about the RIGHT is GOOD metaphor.[492] He compared the moral valence judgments of horizontal directions of left-handed and right-handed subjects. If the metaphor was purely linguistic or cultural, handedness should not affect valence judgments of horizontal space and both groups should equally view right as more positive than left, since the left side has a more negative connotation. On the other hand, if metaphors originated in the embodied experience of differential sensorimotor fluency, left-handed people should be more likely to associate a positive valence with left-handedness. Casasanto found a significant link between handedness and spatial valence judgments, substantiating the embodied metaphor view. His results match that of similar studies, such as those of expert typists who "prefer" letter pairs that are easily typed to those that are more difficult in non-typing contexts.[493]

A number of aspects of metaphor theory are still poorly understood, such as the rules governing the creation of compound metaphors.[494] What is largely recognized,

---

[487] David McNeill. *Hand and mind: What gestures reveal about thought*. University of Chicago Press, 1992.

[488] Wilson and Gibbs 2007.

[489] Raymond W. Gibbs Jr. *The poetics of mind: Figurative thought, language, and understanding*. Cambridge University Press, 1994.

[490] Thomas W. Schubert. "Your highness: vertical positions as perceptual symbols of power." *Journal of personality and social psychology* 89.1 (2005): 1-?; Richardson et al (2003) found a similar effect for 'respect.'

[491] Margaret Wilson. "How did we get from there to here? An evolutionary perspective on embodied cognition" in Paco Calvo and Toni Gomila eds., *Handbook of cognitive science: An embodied approach* (Elsevier, San Diego: 2008): 375-388.

[492] Daniel Casasanto. "Embodiment of abstract concepts: good and bad in right-and left-handers." *Journal of Experimental Psychology: General* 138.3 (2009): 351-?.

[493] Ibid., 353.

[494] Other questions include, Why do some but not other aspects get mapped from the source to the target domain -- why does the metaphor THEORIES are BUILDINGS lead one to say 'the theory has no foundations' but not 'the theory has no roof'? How is bidirectional activation possible, where priming of abstract concepts lead to activation of source domain concepts (Gibbs 2005, 115-6; S.F. Taub. "How productive are metaphors?" in *Conceptual structure, discourse and language* (CSLI Publications, 1996); Landau et al. 2010, 1052ff). Michael Anderson and Rafael E. further argue that cognitive metaphors has less influence than culture and language generally (Michael Anderson. "On the Grounds of (x)-grounded Cognition" and Rafael E. Nunez. "Mathematics, the Ultimate Challenge to Embodiment: Truth and the

however, is that metaphor theory cannot be the whole explanation of meaning, since it presumes a skeleton of literal meaning onto which additional semantic detail is accreted. Prinz observes that because the metaphorical relation is not an identity, there's a "remainder" of meaning left unexplained.[495] Metaphors like LOVE is a JOURNEY and ANGER is HEAT certainly enhance the target concepts, but knowing only that anger is *like* "liquid exploding from a container" is insufficient on its own to account for the entire concept.[496] Moral obligation may be *like* a physical force, but it also has a direct experience that PSS is better equipped to capture.[497] Furthermore, the logic of metaphor demands pre-existing content in the target domain to guide the mapping from the source. A concrete domain cannot be mapped to an abstract domain that has no content. In other words, one needs to know *something* about TIME before applying knowledge of spatial dynamics to it. Metaphor theory may thus be best seen as a compliment to purely imagistic theories of concepts such as PSS that more adequately explains the visceral pull of tangible concepts that we experience directly[498], particularly for abstract concepts that cannot be directly simulated.

C. Abstract Concepts

Is the combination of direct embodied experience and cognitive metaphor enough to account for complex meanings that pervade the social world, from mundane abstractions like TOMORROW and CAUSATION to complex ones like DEMOCRACY and OBLIGATION? I will conclude this section by considering how the constructs introduced so far might accomplish this. I distinguish several categories of abstractions: semantically empty linguistic symbols, generalizations and high level categories, inductive categories (humor, old age), full-blown abstract concepts, and, finally, propositional information.

Some highly abstract concepts – say, DEMOCRACY – may be defined (within a particular individual's lexicon) solely in terms of linkage to other abstract concepts – VOTING, GOVERNMENT, CONSENT. Most of these association chains quickly lead to concrete meaning; CONSENT or VOTING may be defined directly in terms of

---

Grounding of Axiomatic Systems" in Paco Calvo and Toni Gomila eds., *Handbook of cognitive science: An embodied approach* (Elsevier, San Diego: 2008)).

[495] Prinz, *Furnishing the mind*, 172.

[496] Note, however, that a vast array of abstract concepts at the periphery of our knowledge may be *fully* accounted for with metaphors. Most non-physicists' notions of an electron will be exhausted by metaphors (with propositional information attached) – it is *like* a little ball, it orbits the atomic nucleus *like* a planet, current is *like* little balls flowing down a pipe.

[497] Prinz, *Furnishing the mind*, 171-2. Barsalou (1999) and Barsalou and Weimer-Hastings (2005) put forward a very similar critique.

[498] Barsalou 1999, 650. How the two theories mesh is far from settled. Are they competing alternatives? Descriptions of different stages of mental processing? Different descriptions of the same phenomenon? Generating experimental evidence that favors one of the accounts over the other remains difficult. In one interesting study, Mark Landau and colleagues take the experimental observation that plotting physical distances on paper appears to prime concepts of emotional distance as evidence against involvement of PSS, because the association of physical and emotional distance cannot be directly perceived and therefore is more plausibly explained through metaphor (2010, 1054-5). However, interpreting the results is less straightforward than the authors imply because the activation of representations is still poorly understood within both accounts.

concrete experiences. But if these connections only from a closed lexical web, if the links do not anchor in any tangible "forms of life" or social practices, the concept will be semantically empty and purely functional (for that person), referencing the conversational use-knowledge of its word, but having no semantic grip on the person.[499] Since such concepts are *ex hypothesi* superfluous to intelligibility and we need not consider them further.

Superordinate categories – high level generalizations of real objects (FURNITURE, ANIMAL) – are the easiest for cognitive science to explain: they can be interpreted as amalgams of typical attributes and common examples of the category. In categorizing an observed object as an instance of FURNITURE, a person might thus evaluate whether it sufficiently resembles any tables, couches, chairs or other "exemplars" they are familiar with.[500] A similar type of abstraction (inferred category) also derives from concrete experience, but refers to individual aspects or properties of tangible or perceivable phenomena and their nominalizations. These may be grounded in concrete reality through instance tracking of connected events, actions, and 'introspective properties' of situations.[501] For instance, the concept FORCE can be instantiated in part via a simulation of kinesthetic experience of pressure acting on objects and its effects, forming an expectation of movement. HUMOR might be instantiated in examples of jokes, cartoons, laughter; FREE WILL in the experience of making choices or unrestricted motion; VIRTUE through simulations of virtuous acts or emotional states invoked by such acts.[502] Thus the value of equal participation that energized the Occupy assemblies was often a product of such physical actions and their emotive effects as seen in participants' descriptions of what the movement is all about: "listening to each other, sharing with each other," "all voices are heard, none above another."[503] These impressions are usually absent from the actual *in situ* use of these concepts, lending then an abstract feel. But Barsalou and Weimer-Hastings speculate this occurs because the experiences are distributed across multiple situations, making their invocation harder to notice introspectively.[504]

Proponents of embodied semantics argue that even fully intangible concepts – TIME, INFINITY, DIVINITY – may be constituted in similar ways. INFINITY could be comprehended (to the extent that it ever is) by analogy to finite sets and processes.[505] While actual infinity (i.e., the set of all natural numbers as an entity) is the impossible

---

[499] Jesse Prinz calls such concepts "slaves to our lexical networks," the use of which simply relies on word association and linguistic memory (Prinz, *Furnishing the Mind,* 169-178). Thus I might define the word *electron* as a "negatively charged elementary particle" and use it appropriately in sentences ("electricity is the flow of electrons"), but having no direct understanding of "negative charge" or "elementary particle" (perhaps with the exception of images of textbook diagrams), ELECTRON remains an empty, sterile concept for most of us. Barsalou and Weimer-Hastings 2005 review studies suggesting that upon encountering abstract words without context the initial approach is draw on word associations, which is frequently sufficient, averting retrieval of further conceptual content (132).

[500] For a discussion of "prototype" and "exemplar" theory of concepts see Prinz 2004, chs. 2-3.

[501] Barsalou and Wiemer-Hastings 2005;

[502] Prinz, *Furnishing the Mind,* 178-80.

[503] "Occupy Wall Street: The General Assembly," October 1, 2011, video clip, accessed March 2013, YouTube, http://www.youtube.com/watch?v=odFygPMwbIM.

[504] Barsalou and Wiemer-Hastings 2005.

[505] George Lakoff, and Rafael Núñez. *Where mathematics come from: How the embodied mind brings mathematics into being*. Basic books, 2001.

result of a process of enumeration that by definition does end[506], it is mentally represented as a process that does end: cases of the former are handled as cases of the latter.[507] Lawrence Barsalou proposes that schematic simulations substitute concrete situations for abstract constructs – "For *the end of time,* I can begin by simulating the ends of known processes, such as *the end of growth* and *the end of walking.* In all such cases, a process occurring over a stretch of time stops. Applying the same schematic simulation to *time* yields an interpretation of *the end of time,* even though we have not experienced it [and cannot experience it]."[508] Similar evidence speaks in favor of the metaphorical basis of NUMBER, POWER and SIMILARITY.[509] Simulation and metaphor are likely augmented by other mechanisms. For instance, Fauconnier and Turner's theorized process of conceptual blends (of which metaphor is a simple case) may generate new abstract concepts with novel features by selectively importing and integrating properties from both source and target domains of a mapping.[510] Complex abstractions such as TIME, they contend, arise from webs of metaphors organized as conceptual blends, rather than a simple mapping between two domains.[511] In practice, fully abstract concepts likely combine all of the above – situational simulations, analogy, and word and instance tracking.

One might object that a concept like CAUSATION entails a certain sense of inexorable certainty of the connection of two events that goes beyond the by-definition contingent correlational association that can be perceived in the world. The approach outlined above would seem to treat the idea that day follows night as merely a strong regularity rather than a derivation of *laws* of celestial mechanics. One response is that the sense of certainty we attribute to concepts like TRUTH or CAUSATION is simply a phenomenal by-product of the processes that instantiate it (a direct discussion of phenomenology of meaning – see section IV – requires the mental-phenomenal distinction that is presented in the next section), coupled with the linguistic use-

---

[506] Note that an additional step separates the metaphorical constructs of *infinite sets* and infinite *processes* from *infinity as such,* a pure abstraction of which we in fact have very little understanding beyond its linguistic use knowledge.

[507] Along the same lines, grappling with TIME is known to involve spatial knowledge. Building on the observation that English time metaphors are horizontal while Mandarin ones are mostly vertical, Lera Boroditsky found spatial primes affected time reasoning differently based on the primary language of the participants. English speakers thought about time faster after horizontal direction visual primes while Mandarin speakers did so after vertical primes (Lera Boroditsky. "Does language shape thought?: Mandarin and English speakers' conceptions of time." *Cognitive psychology* 43.1 (2001): 1-22; the original experiment was later corroborated by work reported in Lera Boroditsky, Orly Fuhrman, and Kelly McCormick. "Do English and Mandarin speakers think about time differently?." *Cognition* 118.1 (2011): 123-129). Further challenging the view that metaphors linking space and time are only superficially associations (a concern raised by Ray S. Jackendoff and David Aaron. "Review article of Lakoff and Turner 1989." *Language* 67.2 (1991): 320-38, cited in Gibbs 2005, 189-190), Casasanto and Boroditsky confirm the asymmetry of the TIME is SPACE metaphor, where spatial effects bias temporal judgments but the reverse is not true (Casasanto and Boroditsky 2008).

[508] Barsalou 1999, 647.

[509] Casasanto 2009, 352. But note that the concept NUMBER, for example, is not the same as basic numerical competency, which is acquired much earlier.

[510] Fauconnier and Turner. *The way we think.*

[511] Gilles Fauconnier and Mark B. Turner. "Rethinking metaphor." (2008). "Rethinking Metaphor" in Ray Gibbs, ed., *Cambridge Handbook of Metaphor and Thought* (New York: Cambridge University Press, 2008).

knowledge of the words. In other words, we implicitly infer the concept of *absolute* certainty from experiences of high certainty and learn to use the word only when the inverse of the proposition in question is explicitly denied.

Finally, certain concepts contain propositional information, such as an object's provenance. Nothing distinguishes Cognac from other grape brandy except where it is made, a piece of propositional information associated with a physical bottle. A marriage is only genuine if performed by a person who had been vested with proper authority, rather than an impostor who may look and act exactly the same. But propositional information attendant to a concept can itself be implemented as recursive simulations as indicated above. To the extent it plays a role in real practices such as marriage, such information is typically encoded in material regimes and embodied rituals. In the vast majority of cases, the regalia of the priest is genuine and his proclamation of authority truthful, and thus these come to credibly signal the authority to conduct marriage.

The details of this account will likely be refined in the future, and the complexities of the grounding of symbolic reasoning in the body largely remains to be negotiated. The most damaging eventuality for an embodied theory of meaning would be one where all the interesting conceptual work happens within propositional reasoning that rests on top of low level sensorimotor operations and the simulation business turns out to be an ancillary sideshow. This would effectively sever the link between the body and person-level phenomena. But there is strong evidence against this possibility, some of which I have presented here. On the other hand, the larger framework of embodied thought is not strongly tied to the more specific constructs like perceptual symbols systems, though these cognitive mechanisms can only be replaced with other mechanisms at the same level of description. As Lawrence Barsalou queries in a response to commentators on his 1999 article, if concepts are not this – what else could they be?[512] No competing theory of even remotely comparable level of empirical detail presently exists. An explanation that returns to amodal propositional reasoning has even less to recommend it, as it would resurrect the symbol grounding problem, explaining the obscure by the still more obscure.

III. Elements of a Representational Account of the Mind

The preceding section explains how aspects of human environment and culture encountered in daily life – which ultimately reflect macro-sociological explanatory factors – form the foundation for the experiences of meaning and agency. But before considering those experiences directly (section V), or examining active perception which bridges personal and subpersonal aspects of the mind (section IV), we first need a more detailed account of mental states. To make sense of the idea of non-phenomenal mental states, particularly intentions and emotions, I will rely on a series of conceptual tools elaborated by Thomas Metzinger.[513] His naturalistic, representationalist account explains consciousness as a product of interaction of sub-personal information systems in the brain,

[512] Barsalou 1999, §R3.

[513] Metzinger 2004. For an article-length presentation of the theory see "Empirical perspectives from the self-model theory of subjectivity: a brief summary with examples" in R. Banerjee and B. K. Chakrabarti, eds., *Models of Brain and Mind: Physical, Computational and Psychological Approaches* 168 (2008): 215-245.

a view that is increasingly popular in cognitive science.[514] Ultimately, Metzinger proposes that a system capable of self-representations and characterized by a certain set of properties, such as differential accessibility of information within it, will attain phenomenal self-consciousness.

Admittedly, even as a conceptual toolkit, Metzinger's framework is a controversial choice, given the lack of consensus regarding representationalist theories of consciousness.[515] In classical philosophy of mind, intentional and phenomenal aspects of mental states were seen to be distinct.[516] Representationalism (which is largely equivalent to Intentionalism) seeks to encompass phenomenal character of experience within a theory of intentionality to give it a naturalistic basis. In other words, it claims that the phenomenal character of mental states is exhausted by their representational content, such that "there can be no difference in phenomenal character without a difference in content."[517] Arguments against Representationalism largely take the form of identifying phenomenal states that appear to have no intentional content, such as headaches, moods or perspectival shifts[518], while the defenders of Intentionalism race behind, patching the holes poked in the theory by producing the content that the critics missed. The success of the approach, of course, turns on what qualifies as "content." The standard definition of intentional content is one of having "conditions of satisfaction," such as verity with respect to the world in the case of perceptual content. That is, when I see a banana in front of me, the banana, along with its presence in front of me, is the object of my intentional state, in the sense that its actual presence is the condition that bears satisfaction; similarly a phenomenal state of pain is intentional if it connects to some sort of bodily damage as its intentional object. To my mind, this is too narrow to capture the vast variety of possible human experience. Metzinger, however, does not define representations in this way.[519] He thus sidesteps many of the traditional

---

[514] On Metzinger's theory, consciousness is a stream of active mental representations. Thus, the conscious experience as such, or what John Searle calls 'unified field' of consciousness (Searle, J. "Consciousness: What we still don't know." *The New York Review of Books* 52.1 (2005): 36-39) is reframed as a stream of representations as defined below, each of which non-mysteriously has neural correlates. In other words, the 'conscious field' is not distinct from the intentional contents it surveys.

[515] For a recent summary see William Seager and David Bourget. "Representationalism about consciousness." *The Blackwell Companion to Consciousness* (2007): 261-276.

[516] Following Brentano's definition, mental states are intentional in that they are directed at something in the world. Thus the intentional content of a mental state *is* simply its content, what it is about (as opposed to its other properties).

[517] Michael Tye. *Ten problems of consciousness: A representational theory of the phenomenal mind*. MIT Press, 1997, 7, 155-7. For a discussion of species of Intentionalism and another justification of it see Alex Byrne. "Intentionalism defended." *Philosophical Review* (2001): 199-240.

[518] Searle, *Intentionality*; Tim Crane. "Intentionalism" in Brian McLaughlin, Ansgar Beckermann, and Sven Walter, eds. *The Oxford Handbook of Philosophy of Mind*. Oxford Handbooks Online, 2009; Christopher Peacocke. *Sense and content: Experience, thought, and their relations* (Clarendon Press: Oxford, 1983).

[519] How could a condition as broad as "having conditions of satisfaction" be too narrow? What would it mean for a representation to be indeterminable? To presage the upcoming discussion, conditions of satisfaction only pertain to conceptual categories. Thus the truthful (or false) correspondence of the intentional content of a banana in front of me to an actual banana requires the *concept* or *category* of a banana (among others). But some phenomenal content is subsymbolic or nonconceptual – it is not available for cognitive or conceptual attention, and yet may be an outcome of mental representations (see below for examples).

objections to Representationalism. Furthermore, his account of consciousness is, simply put, the only comprehensive naturalistic account of consciousness in philosophy of mind capable of making sense out of the myriad surprising empirical observations he brings to bear. Other notable accounts of conscious experience either explicitly set aside the "hard problem" of consciousness or silently skirt the issue, limiting themselves to describing its characteristics, function or evolutionary value.[520]

The first useful set of concepts to consider is Metzinger's distinction between three forms of intentional content within a system (such as a computer or a human brain). The most basic of these forms is presentational content. In the case of human beings, this is the "online" experience of the world in all its sensory richness, which must be sustained by continuous sensory input and is similar to the traditional philosophical notion of qualia.[521] For human beings presentational content is primitive in that it cannot be decomposed further by introspective attention, and cannot be directly stored in memory.[522] It includes the five external senses, vestibular system, proprioception, and interoception such as pain and hunger.

While presentata is pure sensory input, the second form – representata – integrates presentational content into an internal model of the current state of the world. A *re*presentation is a state or process that is "isomorphy-preserving"; that is, representations "systematically co-vary with properties of the world and they actively conserve this covariance." In the case of human beings, a representation refers to presentational content (whether from the world or internally generated), or other representations.[523] Note the strictly objective nature of the description. It makes no assumptions about consciousness and meaning; it is simply an internal model of a segment of reality. A navigational computer that guides a piece of machinery over a terrain employs a geographical representation in exactly the same sense.[524] Of course, to speak of a representation in the singular is to take a time slice of a continuous representational process. Cogitation is arguably a "fuzzy state" process, where the system is continuously in transition, never in a single definite state, just as the underlying neural assemblies are never in a stable state.[525]

Finally, a simulation is a representation that does not correspond to currently active content; it is decoupled from live inputs to the system and, in human beings, is impoverished relative to the original experience (for this reason, a conscious simulation,

---

[520] In particular, these include: Michael Tye, *Consciousness, color, and content*. MIT Press, 2002; David J. Chalmers. *The conscious mind: In search of a fundamental theory*. Oxford University Press, 1996; Daniel C. Dennett. *Consciousness explained*. Penguin UK, 1993; Christof Koch. *The quest for consciousness*. New York, 2004; Antonio Damasio. *Self comes to mind: Constructing the conscious brain*. Random House LLC, 2012.

[521] See Metzinger 2004, §2.4 for an argument against the traditional formulation of qualia.

[522] Ibid., 87-91.

[523] To define 'representation' somewhat more formally, "The representandum is the *object* of representation. The representatum is the concrete internal *state* carrying information related to this object. Representation is the *process* by which the system as a whole generates this state" (Ibid.: 20).

[524] Even in biological systems most internal information processing will involve internal representations which will never become consciously available.

[525] Michael Spivey. *The continuity of mind*. Oxford University Press, USA, 2008. Spivey makes an analogy to wave states in quantum mechanics that only collapse into a single 'state' upon examination. See also Iris van Rooij, Raoul M. Bongers, and W. P. F. G. Haselager. "A non-representational approach to imagined action." *Cognitive Science* 26.3 (2002): 345-375.

particularly of interoception like hunger, is typically experienced as less 'real' than online representations).[526] Simulation can also be seen as a more general case of representation: a representation of some possible system state. Planning what I will have for lunch today, day dreaming, and calling up a memory all constitute phenomenal simulations.[527] Metzinger's claim is that consciousness, including attitudes and emotions is a complex flow of such simulations. Of course, since emotions are not purely cognitive states but also involve the limbic system (as well as much of the body), a fully re-enacted memory of an emotion is not merely a cognitive simulation, but one that re-engages or triggers the larger bodily systems.

Mental vs. Phenomenal

In folk psychology, mental states are unproblematically equated with phenomenal experience of a subject. But over the past half a century, the idea of a non-phenomenal mental state has gained increasing traction. Conscious attention and working memory are very limited resources. People can only hold about seven items of information in working memory at the same time, and only about 4 in visuospatial memory.[528] Since most tasks require much more information to be active at the same time, most mental processing must occur outside working memory. By some measures, a great majority of our behavior is unconsciously determined.[529] Indeed, not only can attitudes and behavior be prompted without a person's awareness, even declarative knowledge and emotional judgments can be activated outside conscious awareness.[530] Once the distinction between mental and phenomenal is made, the mystery of consciousness is transformed into the task of articulating what is special about the mental states that become conscious. Conversely, to understand subconscious mental states, whether we view them as phenomenal states that are suppressed from consciousness (as does John Searle) or ones that lack certain necessary properties that would raise them to consciousness (as does

---

[526] See Metzinger (2004:44) for a formal definition. Digital systems are not thus limited – a physically realized AI can have all of its presentational content available as an exact representations after the fact. But beings like us are simply unable to reproduce the full richness of the original input, though people with extremely accurate and vivid visual memory (eidetic imagers) approach this ability.

[527] Metzinger remarks that these three modes of informational content can be viewed as levels of increasing complexity that likely parallel their evolutionary history (2004: 47-9). Formation of presentata – internal presentation of an ongoing input was the first evolutionary step in input-output decoupling. By first forming an 'image' of sensory input (e.g. experiencing pain as an input), an organism can break the link between stimulus and reflex and appropriately fine-tune the response. Representation integrates the input into a larger world model, further increasing response precision. Finally, simulation completely severs the system from inputs and can serve arbitrary objectives.

[528] Mark Solms and Oliver Turnbull. *Brain and the Inner World: An Introduction to the Neuroscience of the Subjective Experience*. Other Press LLC, 2002, 84.

[529] John A. Bargh and Tanya L. Chartrand. "The unbearable automaticity of being." *American psychologist* 54.7 (1999): 462.

[530] Bargh et al 1996; R. S. Corteen and B. Wood. "Autonomic responses to shock-associated words in an unattended channel." *Journal of Experimental Psychology* 94.3 (1972): 308; Peter M. Forster and Ernest Govier. "Discrimination without awareness?" *The Quarterly Journal of Experimental Psychology* 30.2 (1978): 289-295; J. A. Groeger. "Evidence of unconscious semantic processing from a forced error situation." *British Journal of Psychology* 75.3 (1984): 305-314; John F. Kihlstrom. "The cognitive unconscious." *Science* 237.4821 (1987): 1445-1452..

Metzinger)[531], we are forced to begin with phenomenal simulations, and then strip away properties yielding merely mental ones.

Metzinger's core project is one of identification and description of the objective, informational and functional properties of mental simulations by virtue of which they become phenomenal or "currently active" in the informational system that is the mind. Most basically, to be conscious of anything (even simply of a thought) is to attend to it on some level. The presence of the chair under me is part of my phenomenal reality because I can focus attention on the way it presses on my body. Similarly, I can concentrate on the hunger in the pit of my stomach, or try to ignore it. On the other hand, I cannot directly attend to my digestive process or the consolidation of a long-term memory, so we would characterize these later processes as non-phenomenal.

To make an analogy to eyesight, we bring an object into focus by orienting the eyes so that the light from the object falls into the tiny segment of the visual field captured by the fovea, where the receptor density is 50 times greater than in the rest of the retina, so that the portion of the visual field in which the object is located is allocated more receptor resources, allowing the resolution of much finer visual detail. Phenomenally speaking, attention seems to similarly be a process of dynamic adjustment of resolution or richness of detail of a mental simulation (note that for the moment, the question of control of attention or attentional agency, is set aside). Some internal states and processes can likewise become the object of attention. I can (fail to) attend to the cause of my increasing annoyance (the noisy typist next to me), as much as I can (fail to) attend to the (external sensation of the) noise itself. This form of inward guided attention is in effect when mulling over one's preferences, "concentrating," or indeed, trying to clear the mind.

Contrary to the analogy of bringing something into visual focus within the fovea, attention is not a binary property but admits of degrees. Even as I reminisce about yesterday, the wall in front of me is still phenomenally present – I am still aware of it, even when it does not hold the focus of my attention. The famous "cocktail party problem" of holding a conversation in a loud room also highlights the role of "orienting attention"[532] that can automatically shift focused attention from one's interlocutor to something interesting overheard in another conversation. "Attention" also encompasses a variety of aspects besides focal attention – selective or focused attention, divided attention, persistent or sustained attention – which serve different functions and likely recruit different neural systems.[533] But for the present task of defining phenomenal and mental processes it is specifically the capacity for "mental focus" that is of interest.

All that is a subjective characterization. Within a representational theory of consciousness, attention can be objectively understood as the formation of higher order meta-representation of already active states, whether those have internal or external

---

[531] On the other hand, if conscious and subconscious processes form altogether separate systems (as Timothy Wilson suggests), this line of reasoning is blocked and the ontology of the subconscious seems doomed to permanent obscurity.

[532] Michael I. Posner. "Orienting of attention." *Quarterly journal of experimental psychology* 32.1 (1980): 3-25.

[533] Martin Sarter, Ben Givens, and John P. Bruno. "The cognitive neuroscience of sustained attention: where top-down meets bottom-up." *Brain research reviews*35.2 (2001): 146-160.

intentional objects.[534] Thus if I mentally focus my attention on a green wall in front of me, the phenomenal presentata will be the object of higher order representations. When my attention drifts away from the wall in front of me to yesterday's events, the higher order representation of the wall will no longer be active (it seems the object of most meditation practices is to dissipate attention and these higher order representations altogether). On the neurophysiological level, allocating these additional resources to the object of attention translates into increased activation of the brain regions on which the intentional content supervenes, boosting its salience and inhibiting rival distracting stimuli, and priming the mind for particular upcoming stimuli (based on activated semantic frames) which leads to faster response times if the stimulus conforms to expectation (see below for the discussion of the importance of these micro-expectations). [535] Attention also involves greater cross-activation of other brain subsystems, such that the intentional content within attention becomes globally available to other informational processes – "concept formation, metacognition, planning, and motor simulations with immediate behavioral consequences."[536] If I am talking at a party, even if my "divided attention" keeps track of all conversations that could be of interest, unless I actually do switch focused attention to them, they will not (typically) be available for recall later.

This first criteria of attention already starts to outline what mental but non-phenomenal states may look like. While only phenomenal representations – those within guided attention – are available for selective control of action (I can only "decide" to pick up a cup if I am phenomenally aware of it), some mental (nonphenomenal) representations may be available for behavioral control without being available to guided attention. A stark – if rare – example of such representations occur in the clinical condition of blindsight, where patients insist that they have no phenomenal awareness of a portion of their visual field, yet can differentially react to stimuli presented within those areas if pressed to do so. Some of these patients can discriminate between quite similar shades of green or orange light, or even basic facial expressions, all while reporting their guesses to be entirely baseless.[537] These functional perceptions constitute mental but non-phenomenal presentational content. They are functionally or causally active without being accessible to subsymbolic or conceptual attention which would enable the person to act independently and flexibly on them (for instance, reaching for a glass of water when thirsty). A much more mundane scenario of purely mental representation is routinized physical motions such as one's signature or practiced athletic motions that may be only

---

[534] Metzinger 2004, 32. Note that this is an empirical claim that should be testable in the near future through brain imaging given what we already know about the neural correlates of certain mental operations.

[535] Accelerating responses to stimuli is also a function of "orienting attention." See M. I. Posner and Cohen, Y. "Components of attention," in *Attention and Performance*, X. H. Bouma and D. Bowhuis (Editors), pp. 531-556. Lawrence Erlbaum, Hillsdale, New Jersey, 1984; L. Rizzolatti, I. Daseola, and C. Umilta. "Reorienting attention across the horizontal and vertical meridians: Evidence in favor of a premotor theory of attention." *Neuropsychologia* 25, 31-40, 1987.

[536] Metzinger 2004, 120.

[537] In the wavelength experiment, subjects were shown a sequence of dots for short periods of time in their damaged field. The dots would randomly vary between two colors (e.g., yellow, orange), and the subject had to guess which color had appeared. (Petra Stoerig and Alan Cowey. "Wavelength discrimination in blindsight." *Brain* 115.2 (1992): 425-444; Béatrice De Gelder, et al. "Non-conscious recognition of affect in the absence of striate cortex." *Neuroreport* 10.18 (1999): 3759-3763).

behaviorally available, resistant to attempts to bring their internal structure into focus or guide them consciously. In surveying a number of studies, Daniel Memmert found that reflective introspection into one's movement – as opposed to an external attentional focus – impairs performance "across many different movement skills, skill levels and target groups" because it interrupts the automatic flow of motor schemas.[538] In these cases, the simulations are behaviorally but not attentionally accessible.

Yet, at least in principle, mental representations *can* become phenomenal ones. The visual representations of those with blindsight are blocked by a neurological deficit but that *kind* of representation generally *is* phenomenally available to them. So a mental representation or simulation is one that is potentially accessible to guided attention, but is not currently within it.[539] In contrast, what Metzinger calls "internal" or subpersonal representations maintain an isomorphy with its representandum, but cannot even in principle become available to the global informational system of the mind.[540] Internal representations and simulations may be involved in lower level sensory processing, such as the automatic construction of the three-dimensional image of the world or the filling in of the retina's blind spot. Metzinger does not at any length investigate why internal representations are forever unavailable to attention, but the reason probably has to do with their lack of other necessary properties of phenomenal states he identifies. One such property is occurring within a 'window of presence' where the representation is integrated into a coherent world model (although we can imagine moments where a single stimuli or object eclipses the world, as in moments of "flow" or extreme pain).[541] Representations that are too brief, too localized within the brain's topography, or simply too weak thus cannot be incorporated into the world model of general consciousness.

---

[538] Memmert, Daniel. "Pay attention! A review of visual attentional expertise in sport." *International Review of Sport and Exercise Psychology* 2.2 (2009): 119-138, 125.

[539] There is a subtle ambiguity in Metzinger's notion of guided attention between "currently available" and "potentially available," which he probably inherits from the originators of this idea, Bernard Baars and David Chalmers. While it makes sense to say phenomenal representation is one that is *globally available* for short term memory, memory consolidation, planning and other cognition, the characterization of phenomenal states as only *available* to guided attention is ambiguous, because it is unclear what distinguishes states that "can become available" to guided attention and are "currently available" to it; by what process does a representation "become available"? It seems most useful to draw the line between representations currently *within* guided attention and those that are not but may potentially be within it.

[540] Metzinger 2004, 42.

[541] Metzinger 2004, §3.2.2. He explores a number of other criteria that are typically but not necessarily true of phenomenal experience, including:

- *Convolved holism.* Attentionally-available objects – including the consciously experienced Self - are available as *wholes*. We perceive the world in terms of scenes and situations, which are automatically organized into known objects. Experience is normally contextualized and these wholes of 'global gestalt' are assembled preconsciously – as discussed below; e.g. we cannot will to see parts of the scene as truly isolated parts. A phenomenal subjectivity lacking this property would literally fail to see the forest for the trees – or rather patches of jumbled colors.
- *Dynamicity.* The present moment is experienced *in time*; reality appears as flowing through time at context-dependent speeds.
- *Perspectivalness.* Metzinger observes that "phenomenal space is centered by a phenomenal self: it possesses a focus of experience, a *point of view*" (156). Quite obviously the centeredness of our experience is tied to the centeredness of our behavioral space and is, again, beyond our will to change, though perspectivalness may dissolve in liminal phenomenal states like deep meditation.
- *Offline Activation.* Central to higher cognition is voluntary mental simulation and self-simulation.

Because these properties do not directly pertain to processes of intelligibility I do not discuss them here.

Metzinger's and Barsalou's notions of simulation largely coincide, but they operate at different scales. The processes of semantic generation described in the previous section likely occur through internal simulation. The original impressions and cross-domain associations of perceptual symbol frames, for example, are for the most part unavailable for attention, conceptual cognition or behavioral control, much in the way that a CRT television draws an image line by line so fast that our brains register only whole images. Take the AFFECTION is WARMTH metaphor, for example. Part of the phenomenal character of an affection experience is generated through simulations of past experiences of warmth that were also experiences of affection. However, the schematic form in which they are preserved does not retain the phenomenal profile of the original – they cannot be directly experienced as warmth, and are too weak to become attentionally available. Building on G.E. Moore's observation that only the intentional content of a visual sensation can be introspected, not its vehicle properties, Metzinger calls this inaccessibility "autoepistemic closure" and argues that it is a necessary property of phenomenal representations of the world.[542] The term refers to the blindness of a system to the *re*presentational nature of its content, and the transparency of the resulting representations, mistaking the representatum for the representandum (cognitive states, on the other hand, such as a desire for an object, are opaque representations whose strength and other properties can be evaluated).[543] Presentational content is most transparent because its intermediate processing stages are completely hidden from introspection. We cannot access the precursors to the presentational content of a toothache or the color of the wall in front of us and thus experience them as immanent reality.

In concluding this prefatory section, I want to briefly consider a possible objection to the eclectic strategy of argument employed here, combining phenomenology with neuroimaging evidence and a representational theory of consciousness. These may be viewed as incompatible since the premise of the former is that persons have direct experience of the world not mediated by representations and the evidence provided by neuroscience can be at odds with phenomenal reports. But as Gallagher and Zahavi argue, the two approaches are best seen as informing each other. After all, phenomenology is concerned not only with simple qualia but also with systematically analyzing *how* things appear – examining the vehicle properties of perception[544], which necessarily involves *representations* of perception. It is indispensable in guiding the interpretation of external observations, in part because the latter is inherently limited (i.e., eye-tracking in visual tasks is a method commonly used to study attention and perception, but it does not capture other mental processes that may be affecting the task performance). Psychological experiments can draw on first-person phenomenological reports of their

---

[542] Metzinger 2004: 57, 163-178. See also Robert Van Gulick. "A functionalist plea for self-consciousness." *The Philosophical Review* (1988): 149-181.

[543] Sydney Shoemaker. *The First-Person Perspective and Other Essays*. Cambridge: Cambridge University Press (1996), cited in Metzinger 2004, 164. In other instances, the cloak of transparency can be pierced. For instance, though we are normally unaware of the phonology of speech in a conversation, we *can* direct our attention to the auditory profile of individual utterances. The inner monologue, on the other hand, is only ever partially transparent because we remember the precursors of any individual thought (e.g. their status of being representations are not fully hidden), allowing us to recognize thoughts and imagination for what they are when not in pathological states.

[544] Gallagher and Zahavi 2007, 27.

subjects to calibrate and guide neuroimaging.[545] Conversely, experimental findings supplement personal observations in phenomenology – Merleau-Ponty himself made extensive use of clinical psychology to augment his introspection. Phenomenological inquiry is an essential first step in charting the course of study – as illustrated by my use of Dreyfus's account of intentionality below – but the immediacy of a conscious percept (and other assumptions of classical phenomenology) need not be taken on board and can itself be analyzed as a construct of the mind, a representation.

IV. Active Perception

The previous two sections have examined sub-personal building blocks of meaning and the connection of subjective experience to lower level psychological and neural processes. This section builds on this foundation to analyze perception and its role in non-reflective conscious activity. It explores the different layers of meaning automatically inscribed in the perceived world, culminating in the phenomenal experience of "active" meaning.

A. Complex Perception

On the traditional understanding of the mind, perception is a first stage in a behavioral loop, followed by cognitive processing of the percepts and a response. The intuition behind the model derives from the experience of pure perception, the paradigmatic case being the viewing of a pure color field, where no cognitive processing is involved, only a registering of the outside world. But in the real world, color is encountered as an aspect of things in the world, and so perception is never quite so simple. Relevant here is Metzinger's conceptual distinction between availability of presentata and simulata for guided *subsymbolic* attention and their availability for cognition mediated by concepts and categories. Although the two usually coincide, a phenomenal representation need not be *cognitively* or *conceptually* available. Thus knowledge that eludes conceptual encoding is often termed "intuition." Until the coherent pattern present in the subconscious becomes conscious as articulable perception or insight, it is available nonconceptually to the conscious mind. When leaving my house I may feel drawn back before realizing consciously that I forgot my wallet. Such nonconceptual states also include ineffable sensory perceptions and moments of emotional turmoil that defy all attempts to discretize or articulate them. Similarly, the human eye can distinguish finer gradation of color hues within presentata than can be captured by memory or instantiated in the imagination (in other words, less hue precision is available to memory and concept formation than to subsymbolic attention).[546] Finally, certain mental states under deep meditation may also be available solely for online experience, disintegrating on any attempt to analyze or categorize them.[547] On the other hand, some highly abstract logical

[545] C.f., Antoine Lutz, et al. "Guiding the study of brain dynamics by using first-person data: synchrony patterns correlate with ongoing conscious states during a simple visual task." *Proceedings of the national academy of sciences* 99.3 (2002): 1586-1591. This correlation was possible because Lutz et al found phenomenal states to coincide with macro-scale brain activity patterns – providing a "signature of a subject's cognitive strategy."
[546] See Metzinger 2004, 69-70 for a discussion and references.
[547] Ibid., 75.

constructs are *only* available as symbolic representations: imaginary numbers, for example, can only be represented as concepts; they are not available to subsymbolic attention, or, put differently, there is no experiential presentata associated with them.[548]

To be sure, it has been known for some time that extensive processing takes places between the initial registering of photons by the rods and cones in the eye and the final visual scene as perceived by a healthy human being; some "cognition" takes place in the course of perception. To perceive lines as lines, shapes as shapes, motion as a connected process rather than a sequence of snap shots, depth of field, and even the "proper" vertical orientation, requires the exercise of vast processing power.[549] Nor is perception autonomous from the body's physical state: spatial perception and localization of sound is affected by one's posture; autonomic arousal leads to a narrowing of focus; harsh pain dulls the external senses; and so on.[550] Finally, the perception-cognition separation is also obviously qualified in that to recognize an object in the visual field one must be familiar with it (possessing at least an implicit concept of that object). Still, all of these considerations are compatible with a logical and causal separation of perception and reasoning proper.

But over the past several decades cognitive science has unambiguously shown that even the simpler stages of percept processing is influenced by interests, situational context, and volitional attention, which rapidly transform the veridical representation of the perceived scene to one that is interest-specific.[551] This differential processing is even evident in the behavior of individual sensory neurons, which varies according to an organism's goal.[552] The brain automatically filters sensory stimuli before they reach conscious awareness, based on whether the stimulus is familiar/not, desirable/dangerous, etc. As Shaun Gallagher observes, "the fact that I may feel the object as hot rather than as smooth, for example, will depend not only on the objective temperature of the object, but on my purposes."[553] A liquid of the same temperature will feel warmer if I am testing milk for an infant than when I am washing dishes. Rather than a passive precursor to

---

[548] The idea of a representation that is only conceptually available may appear to fly in the face of the embodied account presented here. That is, if all meaning arises out of sensorimotor states, how can there be representations that have no sensorimotor states associated with them? The answer (based on the discussion in section II.C) is that purely abstract concepts such as imaginary numbers appear to be derived from experiential states through a complex of metaphors, "schematic simulations" and conceptual blends. But though such concepts are ultimately products of those precursor states, the link is too indirect to support subsymbolic access to them, and so they may only appear as symbolic representations to the conscious mind.

[549] C.f. John HR. Maunsell. "The brain's visual world: Representation of visual targets in cerebral cortex." *Science* (1995)

[550] Gallagher 2005, 142-50.

[551] For discussion of such evidence see Thomas Goschke. "Voluntary action and cognitive control from a cognitive neuroscience perspective" In Sabine Maasen, Wolfgang Prinz, and Gerhard Roth Eds. *Voluntary action: Brains, minds, and sociality*. Oxford University Press, 2003; and Gibbs 2005.

[552] John Maunsell details an experiment on macaques where the researchers were able to fix or correct for retinal movement to insure that the rest of the image actually recorded by the eye remained the same, while they altered the stimulus relative to a given behavioral task (Maunsell 1995). They found certain individual neurons to fire only when the animal was "paying attention" to a particular area of their visual field within the current task**.** Maunsell summarizes, "by filtering out irrelevant signals and adding information about objects whose presence is remembered or inferred, the cortex creates an edited representation of the visual world that is dynamically modified to suit the immediate goals of the viewer" (768).

[553] Gallagher 2005, 142.

deliberative cognition, perception is to a large degree its companion. It is pragmatic in the unsurprising sense that is geared toward achieving the organism's goals in the world.

This tight link between perception and action was elegantly illustrated by an experiment performed by Thomas Thach and colleagues.[554] Dart throwers were given distorting goggles that rotated the visual field. After some practice, the throwers adjusted to the distorted vision and were able to largely restore their performance. However, this correction was not generalized but specific to the throwing method. When the subjects switched from throwing overhand to underhand, performance plummeted again and they had to repeat the corrective learning process (to throw with the goggles on), showing that the visual system's compensation for the goggles was specific to the precise action, rather than a general perceptual adjustment. Thus, even though much of the perception processing is preconscious, extracting information from an unexperienced stimuli through internal or mental simulations, it is inextricably intertwined with phenomenal representations, even quite abstract ones.

It also appears that far from Wittgenstein's relegation of 'expectation' to a linguistic artifact[555], perception is heavily influenced by implicit and explicit anticipation at a variety of timescales that arises from the activated situational schemas. These "micro-expectations" both direct awareness where most relevant ("orienting attention"), and augment vague or partial sensory input in conformance to those schemas. Behavioral studies show that visual perception and comprehension is more rapid and accurate when the presented images or videos are realistic, i.e., matching our expectations about physical motion, with objects moving in normal trajectories and human bodies taking ordinary poses.[556] For instance, when viewing partially obscured images of people in motion, experimental subjects tend to automatically interpret the obscured postures to be those normal for human bodies.[557] This predictive anticipation has been shown to accelerate response if the expected percept occurs.[558]

In the visual domain, these expectations are generated at an early processing stage, simultaneous with visual depth analysis. When the world confounds them, we are often oblivious because the cognitive resources allocated to that portion of the sensory field prove insufficient to represent the unexpected stimulus (appropriate schemas have not been pre-activated), a phenomenon Arien Mack and Irvin Rock call "inattentional blindness."[559] Or, as Merleau-Ponty noted much earlier, a sensory stimulus will go

---

[554] Thach, W. Thomas, H. P. Goodkin, and J. G. Keating. "The cerebellum and the adaptive coordination of movement." *Annual review of neuroscience* 15.1 (1992): 403-442.

[555] Wittgenstein, *Philosophical Investigations,* §§574-83. To be fair, Wittgenstein is probably referring to the idea of a conscious experience of expectation.

[556] Irving Biederman, Robert J. Mezzanotte, and Jan C. Rabinowitz. "Scene perception: Detecting and judging objects undergoing relational violations." *Cognitive psychology* 14.2 (1982): 143-177; See Landau et al 2010 for a survey of the relevant social cognitive research.

[557] C.f. Maggie Shiffrar and Jennifer J. Freyd. "Apparent motion of the human body." *Psychological Science* 1.4 (1990): 257-264.

[558] Posner et al. "Components of attention"; Rizzolatti et al. 1987. See also Memmert 2009.

[559] Arien Mack and Irvin Rock. *Inattentional blindness*. Cambridge, MA: MIT press, 1998. See also a report by Simons and Chabris whose experiment where subjects engrossed in a visual task (counting basketball passes between two teams) failed to notice a gorilla passing in their midst has become something of a meme (Simons, Daniel J., and Christopher F. Chabris. "Gorillas in our midst: Sustained inattentional blindness for dynamic events." *Perception-London* 28.9 (1999): 1059-1074). Chugh and Bazerman group this and similar well-documented failures to apprehend apparent information ("change blindness",

unnoticed "when it strikes a sensory organ which is not 'attuned' to it."[560] In short, the prior expectations rooted in interpretive schemas can predispose us to notice the extremely subtle or, in some cases, miss what is obvious.

In presenting this form of anticipatory attention, Shaun Gallagher resurrects Husserl's notion of "protention," an apprehension of the future that requires generation of explicit goal states or at least possible future states at the sub-phenomenal level.[561] Along with "retention" – the phenomenal representation of what just happened – protention is essential for virtually all activities that we engage in; it automatically forges consecutive moments into a flow of activity. Even something as simple as uttering a sentence when ordering a coffee – where the speaker must track where in a given sentence he is and what comes next, while the listener actively anticipates what the speaker will say next – has significant duration, which requires implicitly anticipating what is about to happen (completing my sentence, reaching out my hand to accept the change, preparing to smile in response to the barista's smile). The same holds even for seemingly indivisible acts: if I squeeze the trigger of the gun, I am not surprised by the recoil. Any *enduring* conscious experience requires these connections to the immediate past and future, allowing a melody, for instance, to be perceived as a temporally integrated unit rather than a flow of independent notes. If I am listening to a tune on the radio, even an unfamiliar one, I anticipate the subsequent notes and am surprised if a wrong one sounds. When this anticipation is foiled – as in parsing so-called "garden path" sentences where the favored interpretation of the ambiguous first part of the sentence turns out to be incorrect – confusion results.[562] Thus a Westerner will often have difficulty grasping the rhythm of music not based on Western scales, or even recognizing it as a unified composition.

The protention that appeared in Husserl's work was a purely phenomenological concept that he described as an intention directed into the future, an "anticipatory, expected meaning."[563] But we can analyze it as a cognitive mechanism: an aspect of attention that cues relevant internal and mental simulations of previously experienced situational contexts and embodied, situation-relevant activities, constituting a set of micro-expectations. One is not ordinarily aware of their content, but in some cases these simulations are available for guided attention (i.e., can enter consciousness): one can consciously evoke the sensation of the butt of a rifle hitting the shoulder as one squeezes the trigger. Still, even if possible, this often interferes with the process in question. Thus trying to consciously anticipate subsequent notes in a melody is both difficult and destructive of the listening experience itself. Although, like most cognitive mechanisms, it is still poorly understood, this resistance to introspection is likely a consequence of the

---

"focalism") as examples of "bounded awareness," a limitation distinct from the more recognized "bounded rationality," as commonly operationalized (Chugh, Dolly, and Max H. Bazerman. "Bounded awareness: What you fail to see can hurt you." *Mind & Society* 6.1 (2007): 1-18).

[560] Maurice Merleau-Ponty. *Phenomenology of Perception*. Routledge, 201, 86; also see Gallagher 2005, ch. 6, esp. p. 142.

[561] Gallagher 2005, 190-8.

[562] Bradley L. Pritchett. "Garden path phenomena and the grammatical basis of language processing." *Language* (1988): 539-576. Gallagher suggests that *retention* of a chain of previous thoughts is what creates a sense of ownership of each individual one (as "my" thought), while *protention*, as it applies to one's thought stream may be a necessary mechanism for a sense of cognitive agency. A breakdown of protention may thus be responsible for pathological states like schizophrenia (2005, 193).

[563] Edmund Husserl. *Analyses concerning passive and active synthesis: Lectures on transcendental logic*. Vol. 9. Springer, 2001, 116, 129.

constructed nature of the phenomenal *now*, whereby events occurring within a certain temporal span are collapsed into perceived simultaneity through the erasure of temporal divisions between the *representations* of past moments in retention (this collapse is also transparent to introspection).[564]

Since the pre-conscious processes of perception invoke prior experience, they are influenced by the observer's cultural and physical abilities. Culturally-specific aspects of environment encourage particular perception strategies. For example, when presented with a visual scene, Americans are more likely to focus on and remember foregrounded elements, while Japanese tend to focus more of on the context and background of the scene.[565] Preliminary experiments suggest this difference in perceptual processing derives from systematic differences in the types of physical environments each culture commonly encounters. More generally, the semantic context mobilized in protention is a product of one's practices simply because the establishment of the strong associations involved requires recurrent exposure to the association, as provided by the regimentation of a practice.

Perception is also shaped by a person's *body schema,* a subconscious map of one's sensorimotor capacities.[566] The body schema coordinates expectations of proprioceptive and kinesthetic feedback, providing an implicit sense of how the body moves, and can incorporate familiar objects like tools or clothing when they are handled or donned.[567] When observing another's movement, if it belongs to the observer's motor repertoire, it is understood via a simulation of her own body, generating micro-expectations about the moving person's subsequent motions. The rest are perceived as

---

[564] Metzinger 2004, 82-90; see also Barry F. Dainton. "Time in experience: reply to Gallagher." (2003); and Gallagher and Zahavi 2007. Metzinger describes the occurrence within a "window of presence" as one of the key properties of phenomenal states, in that it is very difficult to imagine phenomenal awareness outside of the flow time. It turns out that the 'objective duration' of time that is experienced as simultaneous is actually quite substantial; for human beings, a time window ranging from 30ms to 3 seconds is automatically compressed into the *now* (see Ernst Pöppel. "Temporal mechanisms in perception." *International review of neurobiology* 37 (1994): 185-202; Yoshihiro Miyake, Yohei Onishi, and Ernst Pöppel. "Two types of anticipation in synchronization tapping." *Acta neurobiologiae experimentalis* 64.3 (2004): 415-426). As with many other properties of consciousness, the duration window of presence arises out of physiological properties of the brain. Given that neuronal discharges take on the order of 10ms, and the size of neural networks that are typically involved in phenomenal simulations, range from several to dozens of serial neuron discharges, the time window of the experience may stretch from ~30ms to about a second or more.

[565] Takahiko Masuda and Richard E. Nisbett. "Attending holistically versus analytically: comparing the context sensitivity of Japanese and Americans." *Journal of personality and social psychology* 81.5 (2001): 922; Yuri Miyamoto, Richard E. Nisbett, and Takahiko Masuda. "Culture and the physical environment holistic versus analytic perceptual affordances." *Psychological Science* 17.2 (2006): 113-119.

[566] Gallagher 2005, 24. Gallagher distinguishes this from a conscious *body image*, which "consists of a system of perceptions, attitudes, and beliefs pertaining to one's own body." We know the two are distinct because one may be lost leaving the other intact. Discussions of cases of loss of body schema appear in Gallagher (2005 ch. 2-3) and Merleau-Ponty (2012, 112-120). The reverse, where the person can feel but not cognitively reference their body is true of infants. Implicit in the argument of this chapter is the claim that the body schema is largely learned and encodes one's experience and practices (Gallagher 2005, ch. 4).

[567] The common example is a blind man's cane, which eventually reveals the objects it touches as if directly perceived by the hand. A more interesting example is tactile-vision sensory substitution where images from a video camera are automatically mapped into a tactile domain with something like a vibrator belt, to the point where the senses overlap and one almost 'sees' the environment through it (Gallagher and Zahavi 2007, 157).

purely visual sequences, with only rudimentary anticipation, if any.[568] One gymnast watching another will process the motions in terms of her own body's motor sequences. This yields a richer, visceral profile to the observed movements, allowing her to judge the difficulty of the motion, identify points of greatest strain, and predict subsequent motions, potentially augmenting her own skills in the process. A non-gymnast would typically perceive the same scene more superficially, missing the intricacy of the motions and their coherency.

Additionally, perception and intelligibility are affected by the specific situational context. As Metzinger observes, an almost universal character of phenomenal experience is its gestalt: the world is encountered as a series of convolved wholes – a recursive hierarchy of objects, scenes, and situations.[569] The basic definition of a "situation" as "a region of perceived space that surrounds a focal entity over some temporal duration, perceived from the subjective perspective of an agent"[570] must – at least for the case of human agency – be augmented with the subjective definition of the situation (which, of course, is itself a matter of ongoing perception and interpretation). Research in moral psychology, for instance, consistently demonstrates situational cues to be a factor in how we perceive and process moral valence. To note just three classical experiments: John Darley and Daniel Bateson found that even seminary students were dramatically less likely to check on a person apparently in distress if they were in a hurry when passing by him.[571] Alice Isen and Paula Levin discovered that simply finding a dime in a payphone makes a person dramatically more likely to offer minor assistance to another (say in picking up dropped papers).[572] Finally, Stanley Milgram famously illustrated that even compunctions against inflicting pain on others can be neutralized merely by the trappings of authority.[573] Intuitively the findings are in line with ordinary experience:: a lucky find may incline me to spread around the universe's good will, as it were; being in a hurry, I am "in no mood" to help. But why is this the case? Why should offering of assistance be predicated on one's mood (rather than one's moral character)? Why should it modulate our ethical dispositions and conduct? Why should the mere presence of a scientific authority quash normal ethical impulses?

---

[568] Rizzolatti and Craighero, "The mirror-neuron system"; Giovanni Buccino, et al. "Action observation activates premotor and parietal areas in a somatotopic manner: an fMRI study." *European Journal of Neuroscience* 13.2 (2001): 400-404; Giovanni Buccino, et al. "Neural circuits involved in the recognition of actions performed by nonconspecifics: An fMRI study." *Journal of cognitive neuroscience* 16.1 (2004): 114-126. For a recent meta-analysis see Derek TY Mann, et al. "Perceptual-cognitive expertise in sport: a meta-analysis." *Journal of Sport and Exercise Psychology* 29.4 (2007): 457; fMRI studies of expert dancers specifically implicate mirror neurons in the process (E. S. Cross, A. F. Hamilton, & S. T. Grafton. "Building a motor simulation *de novo*: observation of dance by dancers." *Neuroimage* 31, 1257–1267 (2006) and B. Calvo-Merino, D. E. Glaser, J. Grezes, R. E. Passingham, & P. Haggard. "Action observation and acquired motor skills: an fMRI study with expert dancers." *Cerebral Cortex* 15, 1243–1249 (2005)).

[569] Metzinger 2004, §3.2.4.

[570] Yeh and Barsalou 2006, 353.

[571] John M. Darley and Daniel C. Batson. "From Jerusalem to Jericho: A study of situational and dispositional variables in helping behavior." *Journal of Personality and Social Psychology* 27.1 (1973): 100-108.

[572] Alice M. Isen and Paula F. Levin. "Effect of feeling good on helping: cookies and kindness." *Journal of Personality and Social Psychology* 21.3 (1972): 384.

[573] Stanley Milgram. "Behavioral study of obedience." *The Journal of Abnormal and Social Psychology* 67.4 (1963): 371.

Perhaps none of the studies are more controversial and more open to interpretation as Milgram's.[574] Milgram himself explained the power of authority demonstrated in his experiments as the ability to make others uncritically accept one's "definition of the situation."[575] But one can also say that the scientific setting of the experiment, normally the domain of objective expertise and (at least in the eyes of experiment participants) a place foreign to moral dilemmas, inhibited moral reasoning and instead activated a constellation of constructs of scientific expertise and authority that inhibited the option of questioning authoritative figures. This interpretation is supported by the post-experiment interviews that Darley and Bateson conducted with their participants that revealed that most subjects did not experience their behavior as one of choice:

> "Either the interpretation of their visual picture as a person in distress or the empathic reactions usually associated with that interpretation had been deferred because they were hurrying. According to the reflections of some of the subjects, it would be inaccurate to say that they realized the victim's possible distress, then chose to ignore it; instead, because of the time pressures, they did not perceive the scene in the alley as an occasion for an ethical decision."[576]

The subjects' situation and state of mind simply did not raise the possibility of helping.[577] In other words, one's conceptual, emotional and moral repertoire at a given moment depends on the active situational cues and practices engaged in. These emotional and normative aspects of a situation directly color the overall perception of a scene and the specific elements that inspire them. An object that inspires fear will be directly perceived as menacing. An approaching truck will appear differently depending on whether or not I am in its path. If I am, it may appear frightening, angry, or particularly loud. If not, I may remain oblivious altogether, relegating it to the visual background.[578]

I must pause here to address an apparent inconsistency between this idea of complex perception and the notion of primary metaphors presented above, the source of which is ostensibly simple sensations. That is, if our perception of the world is always so heavily filtered, how can primary metaphors directly reference physical sensations and

---

[574] Thomas Blass. "The Milgram Paradigm After 35 Years: Some Things We Now Know About Obedience to Authority1." *Journal of applied social psychology*29.5 (1999): 955-978.

[575] Stanley Milgram. "Some conditions of obedience and disobedience to authority." Human Relations, 18 (1965), 57-76: 74, quoted in Ibid, 959.

[576] Darley and Bateson 1973, 107-8.

[577] Darley and Bateson themselves explain the effect by reference to Edward Tolman's idea of "narrowing of cognitive maps," or mental schemas. The narrowing refers to a process where the sphere of stimuli that is taken as relevant or noticeable is dramatically constricted "due to too strong motivations or to too intense frustration." Among possible causes, Tolman includes fixation (over-motivation) and displacement of aggression – as in the expression "he was blinded by rage."

[578] Considerable research, particularly that carried out by Joseph LeDoux shows that the autonomic and endocrine systems' response characteristic of emotion *precede* their cognitive awareness of them, suggesting that it is involved in the construction of the scene interpretation interprets and shapes thought/intentions, and is part of the perception/signification (see J. Dębiec and J. E. LeDoux. "Disruption of reconsolidation but not consolidation of auditory fear conditioning by noradrenergic blockade in the amygdala." *Neuroscience* 129.2 (2004): 267-272, which draws on LeDoux's extensive study of neural pathways of fear).

motor sequences as they must do to ground the whole enterprise?[579] The answer is that "complex perception" refers to the entirety of perceptual experience at a given moment in time which is heavily filtered, while the source of a primary metaphor typically isolates a single dimension of an actual experience. For example, the AFFECTION is WARMTH metaphor isolates the temperature domain of a given moment of complex perception.[580] This is of course also available to conscious attention. The fact that our apprehension of the world is usually a matter of complex perception does not prevent us from isolating particular aspects of it at any given time, such as temperature, color, sound, etc.

Figure 1 below illustrates how various subphenomenal influences may act to shape perception of – and interaction in – a complex social scenario, specifically of an audience member in an Occupy! GA meeting listening to a proposal given to the assembly – "person P is being disruptive" (which, if affirmed, will invite further action):

- A variety of schemas are primed within protention, such as the process-related schemas of the practice, even before the audience member hears the proposal.

- Various constructs activated at T_1 to interpret the proposal without any phenomenal representation of the meaning:

  - Memories of past "disruptive" situations are activated (drawing on one's personal history and culture and instantiating various situational expectations broken by a "disruption"). The mental simulation of these events as personally experienced (triggering past affective responses) will influence perception of and attitude taken toward the "disturbance" vs. other normative values such as that of speech

  - The internalized nexus of practices that were disrupted by the offender – norms of public speaking generally and the specific ones of the GA.

  - A mental simulation of P's actual behavior (if observed). Its specific character – if it is verbal, physical, violent, loud, or protracted – will impact how participants interpret the event and the resulting proposal.

- Commitment to certain normative values such as "value of free expression," cashed out as subconsciously instantiated affective and normative attitudes to certain situations, which automatically produces an emotional and normative response to the proposition. This process is in turn framed by the situational context. For example, GA meetings may come to mark free expression as more salient so that that actual objective disruption is not only tolerated but actually perceived "in a different light," to use a telling metaphor.

[579] I thank Kinch Hoekstra for raising this point.

[580] The matter is actually somewhat subtle than this. Even single dimension perception is subject to many of the filters described above. Thus the sensation of temperature is known to be affected by culture and situational factors (A. Auliciems. "Towards a psycho-physiological model of thermal perception." *International Journal of Biometeorology* 25.2 (1981): 109-122). However, note that this does not negate the experience of warmth itself.

- Affect of the speaker and the general social mood (see section VI on the social context of agency). The awareness of general participation helps generate a sense of engagement, and lend importance to the question before the Assembly – it comes to *matter* to the individual member (note that even though this appears in the diagram as a phenomenal representation directly triggering another phenomenal simulation, both are sustained by internal and mental simulations).

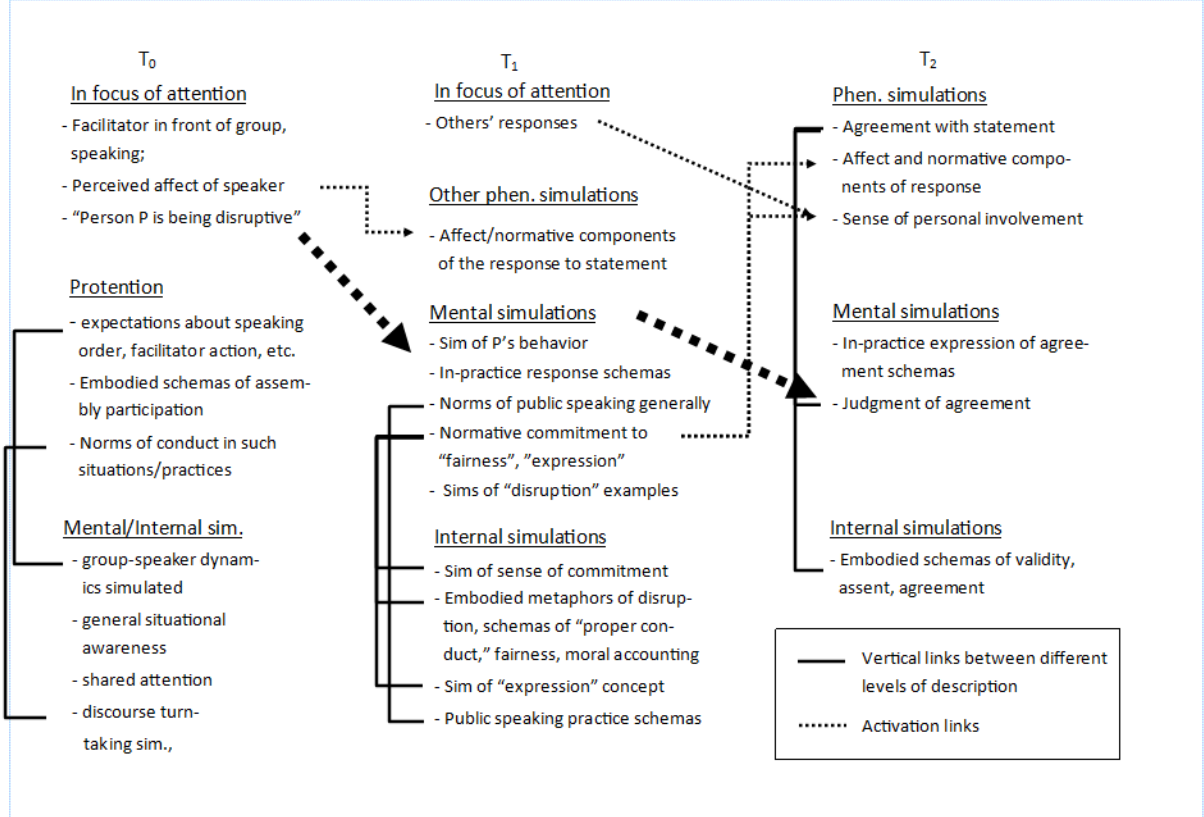

Fig 1. Possible mental processes that could be generated in response to a (fictional) proposal given to an Occupy GA meeting, based on actual discussions in the group's internet forum. The graph distinguishes three temporal moments that would likely be experienced as a single event by the listener. At each point only some of the elements are shown for simplicity: thus at T_1 the facilitator remains in the focus of attention though this is not listed.

Among other things, Figure 1 illustrates the intuitive point that conscious understanding and reasoning occurs through activation of conceptual schemas and other mechanisms that are not themselves consciously chosen, a point that can be obscured by an unwarranted separation of the choosing agent from the semantic structures of language or culture that occurs when the latter is treated as a toolkit or repertoire from which the agent "selects." It also shows, albeit schematically, that the passive, interpretive aspect of perception described above are inseparable from the active step of evaluation, where the world is rendered in terms of *what ought to be*, addressed in the next subsection. While temporally (neurophysiologically), these steps may be distinct, arising from activation of separable neural modules, psychologically and informationally, they are coincident. In the case depicted, the active part of the phrase comprehension is approving

of the utterance as correct, the outcome of a particular confluence of past experience and other mental factors, illustrating that what a person does is not predicted by his or her engagement or proficiency in a particular practice. However, understanding the relevant practices reveals the relevant schemas in which both the questions and answers are framed.

B. Affordances, Signification, Intelligibility

Perception casts a *pragmatic* character onto the world – how I as an embodied agent in the world can interact with and manipulate it. Take the task of moving an awkward dinner chair. Should I pick it up by the back? Hard to carry. By the seat? Not if the back is hefty. It may take a few tries to get a good grip so that I can lift it over the table and not bump into walls. Moving the next chair will go much faster as I am now more familiar with its pragmatic profile: how much effort it takes to lift and turn, how to grab it for the most adroit movement. This pragmatic character is aptly captured by a term popularized in the work of J. J. Gibson: *affordance*.[581] In the words of Andy Clark, "Affordances are the possibilities for use, intervention and action which the physical world offers a given agent and are determined by the 'fit' between the agent's physical structure, capacities and skills and the action-related properties of the environment itself."[582] Affordances have an objective reality with respect to a given observer: a wall affords climbing to a gecko, but not a cat; grass affords consumption to a cow, but not human beings.[583] At the same time, affordances are also skill- and culture-specific: a book affords understanding only to the literate. As Hubert and Stuart Dreyfus note,

> "Because we have the sort of bodies that get tired and that bend backwards at the knees, chairs can show up to us - but not flamingos, say – as affording sitting. But chairs can only solicit sitting once we have learned to sit. Only because we Western Europeans are brought up in a culture where one sits on chairs do they solicit us to sit on them. Chairs would not necessarily have the same appearance/affordance in traditional Japan."[584]

Affordances are pragmatic representations of objects, best described as couplings of perceptive cues to simulations of musculoskeletal (and other) responses, encapsulating their functional possibilities to the observer and dictating where attention is directed.[585] Seeing a cup, motor schemas for the sub-actions "reach," "grasp," and "pinch" are

---

[581] Gibson, J. J. "The concept of affordances." *Perceiving, acting, and knowing* (1977): 67-82, 67. Gibson credits gestalt psychologist Kurt Koffka's notion of "demand character" of a thing and Kurt Lewin's *Aufforderungscharakter* (translated as "invitation character" or "valence") as the inspirations for the idea of 'affordance' (James J. Gibson. *The ecological approach to visual perception*. Lawrence Erlbaum, 1986, 138).

[582] Andy Clark. "An embodied cognitive science?" *Trends in cognitive sciences*3.9 (1999): 345-351.

[583] Gibson distinguished between physical and temporary abilities – e.g. a path affords walking whether or not one is tired; but our purposes do not require such a distinction.

[584] Hubert L. Dreyfus and Stuart E. Dreyfus. "The challenge of Merleau-Ponty's phenomenology of embodiment for cognitive science." In Gail Weiss and Honi Fern Haber eds. *Perspectives on embodiment: the intersections of nature and culture*. Psychology Press (1999): 103-120, 104

[585] Gibbs 2005, 53.

automatically activated (as revealed by neural imaging).[586] With experience, an object's affordances become increasingly specific, potentially even becoming integrated into one's body schema. Acculturating to fine dining, a fork will afford a particular way of grasping, rather than grasping in general. Once acquired, affordances become the most conspicuous component of perception, inscribed directly in the visual presentation of the situation.[587]

Notwithstanding the simplicity of examples above, affordances are not limited to manners of physical manipulation. An object can afford conceptually abstract interaction, as when a sensitive document is treated as a weapon. Situations can similarly be said to afford a certain repertoire of emotional responses: corrupt actions by individuals afford indignation to observers, while systemic corruption can warrant only a diffuse sense of injustice. Similarly, personal relations consist of mutual affordances between participants, e.g., "she offered me a shoulder to cry on." The generation of affordances in perceptual processing is a substantial portion of mental activity, especially in the course of complex and expertise-driven problem-solving. Gary Klein's influential analysis of decision-making in high-pressure occupations reveals that most actions that professionals perform in the field are driven not by conscious decisions but by subconscious identification of analogous situations in the past and drawing out their implications for the present.[588] In other words, what at first glance looks like "decision-making" is often nothing more than "sense-making."[589] Explicit reasoning and deliberation is the fallback option when sufficient experience is unavailable to act automatically; for those with relevant expertise, some 80% of even non-routine decisions flowed directly from recognizing the appropriate analog in the past, obviating explicit evaluation of options.[590] The affordances stemming from these professionals' experience cut down their response times by automatically guiding their attention to the most salient opportunities, leverage points, "choke points," hazards, and anomalies of the situation.

If the idea of possible courses of action being inscribed in the perceived environment seems familiar, this is because it strongly echoes Schatzki's notion of signifying discussed in the previous chapter (though Schatzki himself does not mention affordances). Neither takes the form of rules, implicit or explicit. Rather they are both constitutive elements of embodied subjectivity and likely instantiated through similar

---

[586] Jeannerod, "The representing brain."

[587] Gibson 2005, 75. Using fMRI imaging, Weisberg et al. (2006) found motor modules in the brain to be the primary cortices activated when seeing hand tools (Jill Weisberg, Miranda Van Turennout, and Alex Martin." A neural system for learning about object function." *Cerebral Cortex* 17.3 (2007): 513-521). When unfamiliar, pictures of tools were processed in the visual cortex as simple image, but with hands on experience, brain areas associated with motor skills were activated in their identification.

[588] Gary Klein. *Sources of power: How people make decisions*. MIT press, 1999. The study is based on extensive observation of and interviews with firefighter commanders, wildfire incident commanders, design engineers, chess masters and military tactical commanders, and is rooted in an extensive literature on the psychology of expert behavior. See for instance Laura Militello and Leona Lim. "Patient assessment skills: Assessing early cues of necrotizing enterocolitis." *The Journal of Perinatal & Neonatal Nursing* 9.2 (1995): 42-52 and George L. Kaempf, et al. "Decision making in complex naval command-and-control environments." *Human Factors: The Journal of the Human Factors and Ergonomics Society* 38.2 (1996): 220-231.

[589] Karl E. Weick. "The collapse of sensemaking in organizations: The Mann Gulch disaster." *Administrative science quarterly* (1993): 628-652.

[590] Klein, *Sources of Power*, 17.

cognitive mechanisms. But there is a subtle difference. Signification is a matter of functional intelligibility. It presents a field of possibilities, each with a particular normative color, each part of a loosely connected signifying chain of tasks organized by final and intermediate purposes. A situation is perceived as meaningful if signification chains course through it, if it can be located in a web of known practices. Affordance is a broader concept of embodied interaction with a simpler teleology. The possible actions need not themselves be meaningful or serve instrumental purposes; affordances are (in many cases) more generic and self-contained: sitting on a chair, taking a sip from the cup, shaking an extended hand. Thus the two forms of active perception play different roles, with affordances being more compatible with reflective deliberation.

Anticipations and purposes, emotional valence, affordances and signification – these are all filters through which the world becomes intelligible to the conscious self. This proposition yields a different perspective on what intelligibility *is*. Functional competency may be a criteria of intelligibility as Schatzki proposes, but to equate the two logically puts the cart before the mental horse. To recognize an object in my field of vision as a tree (the meaning of which includes the affordance of climbing), I situate it in one or more conceptual schemas or categories, I *re-cognize* it as such; this is the intentional component of the perceptual experience.[591] If this step fails, the presentata will be semantically mute, though it can trigger other representations. The recognition of the tree as an instance of TREE – rather than merely a brown mass with green speckles – comes along with a spectrum of affordances, possible start points of signification chains (including thought trains), and all the rest of it, which are *immediately* present in front of me. But what Schatzki misses is that this recognition of an object within a nexus of embodied experience has its own existence, a feeling of familiarity. This phenomenal component of perception is the *phenomenal echo* or projection of the mental and internal simulations that my mind executes in interpreting the appearance of a chair as CHAIR. On occasion, we also get glimpses of these simulations, as when thinking about a day of the week one might suddenly detect visual traces of a calendar or a representation of the week as seven horizontal cells, or feeling the heaviness of the word 'heavy' and the cheery sense of the word 'joy'[592], but they are distinct from the phenomenal sensation of understanding.

The sense of familiarity or intelligibility just described, the phenomenal component of meaning, is an instance of cognitive qualia. On the traditional account cognitive states lack qualia, the subjective character of an experience.[593] Wittgenstein articulates a rudimentary version of this position, when he points out that in saying something like "give John the cup", the intentional content referenced by "John" and "cup" will not be phenomenally present.[594] He notes that it is very difficult to switch between "meaning" a building or side of a river when saying "bank," in the way that one

[591] It hardly bears noting here that such recognition does not require conscious recognition of the concept in question as a *concept*.

[592] I believe this is what Daniel Dennett refers to as "phenomenology of comprehension" (Dennett, Daniel C. *Consciousness explained* (Penguin UK, 1993), chapter 3)

[593] For the range of perspectives on the controversial idea of cognitive phenomenology see Tim Bayne and Michelle Montague, eds., *Cognitive Phenomenology*. Oxford University Press, 2011.

[594] Wittgenstein pointed out that within a sentence, individual words – even proper names - don't call forth any particular experience of meaning: in saying "'I have no doubt that that often happens,'" one is not conscious of the two *that*s meaning different things (Wittgenstein, *Philosophical Investigations*, §332).

can easily will to see the duck-rabbit as a duck or a rabbit.[595] The "conservative" position in modern philosophy of mind essentially makes the same argument: introspection does not reveal beliefs, propositions and other cognitive states to have any kind of subjective character (vehicle properties).[596]

Without defending the existence of qualia with respect to all cognitive states, I believe there are two reasons why the qualia of meaning is so elusive despite its reality.[597] The first barrier to its discovery is that – unlike ordinary run of the mill qualia of color vision, say – this experience is generally only available to subsymbolic attention, not to conceptual cognition. The experience of meaning is an instance of what Metzinger calls "Raffman qualia," after Diana Raffman, who discusses the possibility of phenomenal states that are cognitively impenetrable, that is to say, those that cannot themselves become representanda of *conceptual* meta-representations.[598] He points out that "we possess a phenomenal concept of red, but no phenomenal concept of red_{32}, a phenomenal concept of turquoise, but not of $turquoise_{57}$. Therefore, we are not able to carry out a mental type identification for these most simple forms of sensory concepts."[599] Because these representations are only available to subsymbolic attention, they are also generally not available for other mental functions such as memory formation.

The second reason that cognitive qualia of meaning strikes one as a dubious notion is the overwhelming omnipresence of the experience. C. I. Lewis, the major figure in popularizing the idea of qualia noted that they "are ineffable... All that can be done to designate a quale is, so to speak, to locate it in experience, that is to designate the conditions of its recurrence or other relations to it."[600] But under normal conditions intelligibility is always present to some degree, at least in regard to tangible objects in the world. No matter how unfamiliar, they can be understood in some way: the spruce outside my window may be perceived as a spruce, as a tree, as a plant, as a solid object (indeed, the human tendency to overproject patterns and meaning onto the world is widely recognized).[601] World intelligibility is as ubiquitous as gravity or air, and is thus most readily noticed in its absence. "Semantic satiation"[602], where the meaning of a phrase is no longer consciously experienced after extensive repetition (i.e., one can no longer intend the stated meaning) and Wittgenstein's own notion of "meaning blindness"[603] are two occasions where the phenomenal component of meaning vanishes.

---

[595] Ibid., 216-7.

[596] See Peter Carruthers and Bénédicte Veillet. "The phenomenal concept strategy." *Journal of Consciousness Studies* 14.9-10 (2007): 212-236.

[597] The first chapter of Galen Strawson's *Mental reality* (Cambridge, MA: MIT Press, 1994) covers similar territory.

[598] Diana Raffman. "On the persistence of phenomenology." In Thomas Metzinger ed. *Conscious experience* (1995): 293-308.

[599] Metzinger 2004, 72.

[600] C. I. Lewis, quoted in Bayne and Montague, *Cognitive phenomenology,* 6.

[601] However, perceiving something as *simply* a solid object will likely generate a bewildering sense of incomprehension.

[602] Lee Smith and Raymond Klein, "Evidence for Semantic Satiation: Repeating a Category Slows Subsequent Semantic Processing," *Journal of Experimental Psychology: Learning, Memory, and Cognition* 16.5 (1990): 852.

[603] Ludwig Wittgenstein, *Remarks on the Philosophy of Psychology*, ed. G.E.M. Anscombe and G.H. von Wright (Oxford: Oxford University Press, 1980), vol. I, §§168-360.

The qualia of meaning is also noticeable in dreams, where the sense of recognition of a person as familiar may be present despite a foreign appearance.[604]

V. Situated Agency

A. Absorbed Coping

By what avenues do the mechanisms of intelligibility considered so far situate agency? This section begins to answer this question by considering Hubert Dreyfus's elaboration of the writings of Merleau-Ponty, who described ordinary activity as a dynamic and responsive but unreflective process, evoked and guided by one's perceptions, rather than being a sequence of intentional acts. Dreyfus's notion of "absorbed coping" neatly integrates affordances and signification into ordinary behavior and thus constitutes a convenient starting point.

Dreyfus argues that when we engage in a familiar activity, behavior is not guided by explicit representations of success (conscious or unconscious) but by 'motor intentionality,' a homeostasis-like process where the person's responses aim to reduce internal tension rather than to attain a specific goal state. In such cases,

> "acting is experienced as a steady flow of skillful activity in response to one's sense of the situation. Part of that experience is a sense that when one's situation deviates from some optimal body-environment relationship, one's motion takes one closer to that optimum and thereby relieves the "tension" of the deviation. One does not need a goal or intention to act. One's body is simply solicited by the situation to get into equilibrium with it."[605]

On the standard account even habitual action is brought about by the actor's conscious goals and purposes. Thus John Searle contends that mental states cause action – genuine action exhibits a "mind-to-world direction of fit."[606] Dreyfus argues, in contrast, that within coping, perceptions elicit unreflective behavior without intervening mental representations of success, conscious or subconscious.[607] Though he insists such action should still be construed as "intentional," intentions are in a sense baked into the practice.

---

[604] The experience of *déjà vu* may have a similar provenance of a familiarity experience bereft of any intentional content (see Anne M. Cleary. "Recognition memory, familiarity, and déjà vu experiences." *Current Directions in Psychological Science* 17.5 (2008): 353-357.)

[605] Hubert L. Dreyfus. "Intelligence Without Representation–Merleau-Ponty's critique of mental representation the relevance of phenomenology to scientific explanation." *Phenomenology and the Cognitive Sciences* 1.4 (2002): 367-383, 378.

[606] John R. Searle. *Intentionality: An essay in the philosophy of mind*. Cambridge University Press, 1983.

[607] Indeed, cognitive science shows the involvement of the conscious mind to be quite unnecessary for action control (the critique of Libet's experiment notwithstanding). In pathological states where conscious control over behavior is impaired, perception can lead to action directly, as in conditions of *echolalia* and *echopraxia* where patients automatically repeat another's words and actions. Similarly, in hypnosis, it appears likely that "suggestions made by the hypnotist have a direct automatic effect on behavior because of the abdication of conscious control by the hypnotized person;" (Tanya L. Chartrand and John A. Bargh. "The chameleon effect: The perception–behavior link and social interaction." *Journal of personality and social psychology* 76.6 (1999): 893, 906).

Dreyfus remarks that in such moments, "a person is not in any cognitive conditions whatsoever … her behavior is a flow of reactions."[608] If I am walking by the kitchen and stop to taste the contents of a cooking pot, I will likely do so in a passive, reflective attitude – I might say to myself, 'that needs more salt', or the 'acid is out of balance,' simulating a variety of possible favor profiles. But the chef who is actually cooking at a full clip will likely sense the required adjustments immediately and act on it without any inner monologue. According to Dreyfus, the chef is not engaging her "conceptual capacities" or attempting to attain some pre-specified level of saltiness but is non-reflectively responding to the current level of salt as either too high or too low.[609] If stopped after the fact and asked about her reasons for adding this or that ingredient, the chef would have to *construct* them *ex post*, since the actions had no need for them. When it comes to habitual activity, viewing intentions as causal representations of goals, he contends, belies common experience. Even actions that we have consciously decided to execute are composed of individual acts that – although we would avow them as voluntary *post hoc* – are not explicitly purposeful.

Dreyfus's model of behavior fits particularly well with fast paced activity. It is clear that skilled athletes act faster than conscious thought would allow: an expert baseball or tennis player starts her swing before the visual stimuli of the incoming ball could possibly have been consciously registered.[610] As mentioned earlier, there is also evidence that micromanaging – inappropriate or excessive conscious monitoring of performance or attempting to break it down into lower-level component movements – has a deleterious effect on such expert movement.[611] Expert activity, where basic movements are no longer consciously controlled or registered, is correlated with neural activity that is mostly localized to sensory pathways and a formation of "functionally insulated," dedicated neural circuits that no longer require (or, possibly, even allow) conscious inspection, confirming that coping is indeed a neuro-physiologically distinct mode of activity. Giulio Tononi and Gerald Edelman note that this shift "produces a gain in speed and precision, but a loss in context-sensitivity, accessibility, and flexibility."[612] Such behavior becomes virtually automatic.

---

[608] The phenomenology of coping was to some degree presaged by Henri Bergson's account of life as a *flow* of activity (Theodore R. Schatzki, *The Timespace of Human Activity: On Performance, Society, and History as Indeterminate Teleological Events* (Lanham: Lexington Books, 2010), ch. 4). Arguably, some activities do not permit full immersion, to their detriment. Dreyfus suggests bureaucratic and democratic politics are likely to yield suboptimal outcomes because their decisions are generated through externalized processes governed by norms of publicity and rationality, while experts – in politics as in other fields – don't naturally proceed this way (Hubert L. Dreyfus and Stuart E. Dreyfus. "Peripheral Vision Expertise in Real World Contexts." *Organization Studies* 26.5 (2005): 779-792). This is an observation also famously made by Michael Oakeshott on similar grounds.

[609] For a high-level description of possible mechanics of action selection in such states of consciousness see Donald A. Norman and Tim Shallice. *Attention to action: Willed and automatic control of behavior*. California University San Diego La Jolla Center for Human Information Processing, 1980.

[610] See Koch, *The Quest for Consciousness*.

[611] Daniel M. Wegner and Betsy Sparrow. "The Puzzle of Coaction." In *Distributed cognition and the will: individual volition and social context* (2007), 54; Hubert Dreyfus. "Detachment, Involvement, and Rationality: are we Essentially Rational Animals?." *Human Affairs* 2 (2007): 101-109.

[612] Giulio Tononi and Gerald M. Edelman. "Consciousness and complexity." *Science* 282.5395 (1998): 1846-1851, 1847.

If coping is automatic how does it connect with conscious activity? To complete this picture we need to add something like Giddens's "reflexive monitoring." As discussed in chapter two, Giddens similarly argued that normal activity is in most cases a continuous flow rather than a sequence of distinct acts. Within the flow, behavior is not structured as a sequence of acts motivated by individual intentions or goals but as routines within practical consciousness, guided by knowledge we can hardly articulate. But even within such routines, one is to some degree aware of the surroundings not directly related to the activity. As Giddens notes, a teacher may be focusing her attention on the front row, but she remains aware of what the back row is doing. Giddens calls this "reflexive monitoring," by which we are open to stimuli from outside the focus of our attention that may influence the routine behavior or disrupt it altogether.[613]

To describe how such monitoring can occur within coping without breaking out of the "concrete attitude," Dreyfus draws on Husserl's notion of "inner" and "outer horizons."[614] If there is a small disturbance in the activity, one is "summoned" by the affordances within the inner horizon of the current task.[615] Say I am hammering and realize my hammer is too heavy (Dreyfus's example). I can adjust appropriately without a break in coping: I might grab a different hammer I see next to me or reach for screws in my toolbox. Thus, I was implicitly aware of these other tools before the disturbance (I had a mental representation of them). Activity within coping also has an outer horizon of potentiality unrelated to the current task that may summon my attention. This makes available conceptual information and external goals within coping: if driving, I may be prompted to make a detour without interrupting the coping state. But occasionally there are disturbances large enough to suspend coping. This can occur if error correction or non-trivial planning is required, or a novel situation confounds existing schemas. In these "breakdown situations" attention is fragmented and partially turned inward, and conscious desires, intentions, and self-reflective thoughts intervene.

Some argue that even taking into the account the ideas of inner and outer horizons, Dreyfus's presentation of coping is too mechanistic and the unmediated connection between perception and action is implausibly rigid, erasing the possibility of intentionality and contingency outside the breakdown situation (this is indeed how Dreyfus sees it, commenting that the breakdown is the moment of intentionality as traditionally understood). Komarine Romdenh-Romluc, for example, points to Merleau-Ponty's suggestion that "reckoning with the actual" within the absorbed coping process is in fact complemented by "reckoning with the possible," the continual presence of affordances conjured up in the imagination.[616] Romdenh-Romluc writes that "the power to reckon with 'the possible' should be understood as the power to access – and so use - motor skills that are relevant to merely possible tasks and environments," allowing us to act in ways not directly 'summoned' by the environment; for instance, a martial arts instructor demonstrating a block of a hypothetical attack (her example). This potentially

---

[613] Anthony Giddens. *The Constitution of Society: Introduction of the Theory of Structuration* (Berkeley: University of California Press, 1984), 44.

[614] Hubert L. Dreyfus. "Reply to Romdenh-Romluc." in Thomas Baldwin ed. "Reading Merleau-Ponty: On Phenomenology of Perception." (2007).

[615] Hubert L. Dreyfus. *Being-in-the-world: A commentary on Heidegger's Being and Time, Division I*. MIT Press, 1991.

[616] Komarine Romdenh-Romluc. "The Power to Reckon with the Possible" in Thomas Baldwin, ed. *Reading Merleau-Ponty: On the Phenomenology of Perception*. Routledge, 2007.

extends coping into domains of more abstract activity not organized by real-time perceptual affordances. She then reasonably contends that this reckoning with the possible creates a demand for decisions, opening up a space for traditional intentionality *within* coping. However, while this move enriches the idea of affordances, extending them beyond the confines of real time perception, it is not clear what is supposed to prompt these acts of imagination and how they fit within the flow of coping. Because Merleau-Ponty, Heidegger, and Dreyfus primarily deal with physical activities (driving, hammering, sports), it is hard to know what they would make of this proposition. But unless an analogous mechanism of response prioritization can be described within the imagination, this move opens the door too wide, undermining the explanatory force and specificity of affordances.

I agree with Romdenh-Romluc that the state of coping is more complex than Dreyfus portrays and that the traditional forms of intentionality play a greater role. But improving our understanding of this psychological mode need not involve appealing to an even more vague notion of imagination. Instead, we should critically examine the phenomenological metaphors of tensions, homeostasis, and motor intentionality, compelling though they may be. Dreyfus points to work in cognitive science to substantiate his proposal, including the process of Hebbian neural learning, where the topology of neural networks resulting from previous experience directly "tells the player, as it were, what would make him hotter without telling him where the hottest point is," that is, without explicitly representing the goal state.[617] In that article he argues that the ability of a neural network to encode the fruits of past experience without explicitly storing specific memories is a possible mechanism by which perceptual input can directly evoke a response without intermediate representation. This is of course a perfectly ordinary form of behavior: reflex. But Dreyfus wants to distinguish coping from reflex, arguing that the "intentional arc" by which the world solicits a response in the midst of coping involves an accompanying phenomenal sense of appropriateness about the action.[618]

This sense of appropriateness, that a particular actions makes sense, is what I refer to above as a "phenomenal echo" of subphenomenal representations. Over the decades, Dreyfus has been vehemently resistant to the idea that coping is guided by mental representations of goals, even unconscious ones. However, he is primarily concerned with symbolic or propositional representations, for many of the reasons adduced above.[619] He appears to be ambivalent about the possibility of non-symbolic mental

---

[617] Hubert L. Dreyfus. "Intelligence Without Representation–Merleau-Ponty's critique of mental representation the relevance of phenomenology to scientific explanation." *Phenomenology and the Cognitive Sciences* 1.4 (2002): 367-383. Dreyfus is referencing the work of Walter Freeman (W. J. Freeman. "The Physiology of Perception." *Scientific American* 264.2 (1991): 78-85).

[618] Hubert L. Dreyfus. "Refocusing the question: Can there be skillful coping without propositional representations or brain representations?." *Phenomenology and the Cognitive Sciences* 1.4 (2002): 413-425, 415.

[619] Dreyfus seems to view representations as necessarily abstract and decontextualized, raising the problem of matching representations to perceptions. Arguing specifically against Searle, he also contends intentionality as representations of goals is phenomenally implausible, since he thinks to be causally efficacious such representations would have to be conscious.

representations.[620] I want to suggest that they are the basis for the phenomenology he proposes.

On the one hand, this is an empirical question: do affordances arise directly from neural "attractors" as he proposes (see note 258), or are they a consequence of simulation processes as I argue? For most tasks, the evidence strongly favors the latter. But there is also a conceptual difficulty with his view – it fails to account for semantic processes clearly present even in largely motor activities. Take Merleau-Ponty's example of the soccer player in the midst of a game, for whom the field is "pervaded with lines of force" and whose actions are motivated directly by lines of tension, including the feeling of whom to pass to.[621] An interception of the pass would clearly have semantic significance for the player, drawing a sense of frustration, even if it remains subconscious. If the game is in the last minutes of play, the soccer player will probably make a greater effort to get to a ball barely within his reach than if the game was just beginning, suggesting a perceptually transparent difference in the situation that inflects what is signified. If we deny the presence of underlying semantic processes it becomes impossible to distinguish the pass in the last seconds of the championship from a play in a neighborhood game, which could have a similar perceptual character. These examples are hard to explain except through mental representations.

In a more immediate sense, intentions and goals are constantly present within activity in the form of micro-expectations – what I described above as "protention." In other words, it is quite clear that the mind constantly generates partial mental simulations of imminent world states, rather than merely relying on directions of tension. Dreyfus acknowledges this sense of anticipation. On some occasions, in contrast to definition given above, he defines the "inner horizon" of a situation as a "partially indeterminate, predelineated anticipation of partially indeterminate data" or "'predelineations' for structuring of incoming data,"[622] in other words, a preparation for perception that draws on expectations about its semantic structure, which logically demands some representations of the future states.

To summarize my interpretation of it, "absorbed coping" is an outcome of subconscious representational processes. It is a state of mind free of reflexive or second order meta-representations, such that all attentional resources are devoted to the activity at hand. There is minimal conceptual or subsymbolic self-reference or introspection. Does this formulation of absorbed coping get us to the target concept of intentional agency ($agency_3$), where actions are *best* explained by the mental states (purposes, reasons and intentions) of the actor?[623] I would argue that in regard to habitual behavior it does, in two senses. As mentioned earlier, Dreyfus writes that traditional intentionality

---

[620] Dreyfus, "Refocusing the question."

[621] Maurice Merleau-Ponty. *The Structure of Behavior.* Trans. Alden L. Fisher. Boston: Beacon, 1965, 168-9, cited in Dreyfus, "Detachment, Involvement", 106.

[622] Hubert L. Dreyfus. *What computers still can't do: a critique of artificial reason*. MIT press, 1992, 255, 34.

[623] "Best" because it is fairly clear, as even strong intentionalists like Nagel would admit, that other alternative explanations of the behavior are possible: to presage the below discussion, if one rejects metaphysical notions of consciousness, mental states must supervene on the physical reality, specifically the brain. Thus intentional actions must at least in principle also admit of explanations on the level of neurophysiology or even basic physics, framed in terms of inconceivably complex interactions of molecules in the brain.

is absent from coping, only a "motor intentionality" prevails. But, first, we can legitimately label the mental (subphenomenal) representations underlying coping as "intentions." There is good evidence of the reality and causal potency of subconscious goals and attitudes, indeed of their ubiquity.[624] While on the Davidsonian view the idea of subconscious intentions was virtually unintelligible, it begins to make sense if we apply Metzinger's model of consciousness, where mental representations are just phenomenal ones occurring outside the scope of attention at a given point in time. This means that mental states such as intentions, attitudes, reasons, and emotions are in important respects the same representational processes, whether they occupy our phenomenal awareness or not.[625] In the case of goals, the same character of behavior is observed – commitment to the task, perseverance against obstacles, resumption after disruption – whether it is conscious or subconsciously stimulated. Similarly, subconsciously formed intentions very much resemble "prior intentions" even outside of coping (intention may be here defined is a simulation of the action intended at some level of generality and located within an ego-centric reference frame). Suppose I am standing in my kitchen, drinking a cup of water. I look behind me and see that a candle has fallen and lit a newspaper on fire – I immediately throw the water in my cup onto the fire. Is it intentional? Well, it is not purely reflexive (as simply jumping away might be), because I had to engage the knowledge that the fire shouldn't be there and that water extinguishes fire. If asked why I spilled the water on the newspaper I would refer to the need to put out the fire. Yet I could hardly be said to have formed a "prior intention" of doing it. It seems this instinctive action, along with Dreyfus's "motor intentionality," is somewhere between "reflexive" and "intentional" in the strong sense, and is best interpreted as 'mental intentionality.'

The second reason that we can characterize coping as an instance of $agency_3$ is that to the extent that an activity as a whole has a purpose known to the actor, that purpose will be to some degree active within the mind if the actor is to find his activity intelligible. In the course of the soccer game, an explicit representation of the goal of winning may not be active in the player's mind, even subconsciously. But if he is to even implicitly understand himself as playing soccer, the active schemas of which encompass a desired state of "winning," these schemas will essentially be an implicit intention indirectly guiding the player. Why did the player kick the ball towards the goal? To score a point and, indirectly, to win the game.

This subsection has argued that absorbed coping, where one's situation evokes particular actions in place of conscious instantiation of goals and intentions, a mode of

---

[624] For a discussion see John A. Bargh, et al. "The automated will: nonconscious activation and pursuit of behavioral goals." *Journal of Personality and Social Psychology* 81.6 (2001): 1014.

[625] John Searle has been a strong advocate of the idea of latent intentionality, and a frequent foil for Dreyfus's arguments. Searle explains unconscious intentions as neurophysiological states that have "a capacity to cause [the intention] in a conscious form" (quoted in Hubert L. Dreyfus. "A Merleau-Pontyian Critique of Husserl's and Searle's Representationalist Accounts of Action." *Proceedings of the Aristotelian Society (Hardback)*. Vol. 100. No. 1. Blackwell Science Ltd, 2000). Intentions remain causally potent in the physical world whether or not they cause a conscious mental event in that instance. In other words, what is determinative about intentions is not their phenomenal aspect but their causal power, which does not require consciousness (he distinguishes this from epiphenomenalism – see below – by arguing that the intention must be *in principle* consciously realizable, even if it is not so in a particular moment). See the commentary in the volume cited above for canonical objections to his position.

acting located somewhere between purely physical causal processes and fully reflective action, is nevertheless underpinned by mental processes that often have the structure of goals and intentions. But accounts of social activity that emphasize intentional agency are primarily concerned with deliberative, self-reflective behavior. While nested firmly within a practice, such activity cannot be felicitously described as coping. Thus, the next step is to extend the idea of active perception to non-habitual, reflective activity, the primary domain of intentional agency ($agency_3$).

B. Deliberate Activity as Coping: Situated Agency

In this subsection I generalize the comportment of "absorbed coping," characterized as a particular allocation of attentional resources, to non-habitual activity. This involves extending the notions of affordance and signification from mechanisms of external perception to mental states generally, meaning that the nature of thought processes, purposes, and reasons active during deliberative thought (i.e., during "breakdown situations") is substantially similar to that during complete absorption in a practice. The conceptual gap to be bridged is substantial. Previous accounts of routine or habitual behavior such as Giddens's, Dreyfus's and John Dewey's sharply distinguish it from reflective consciousness controlled by reasons and logic. This division is problematic not only because social theory wants to address such activity as well, but also because in some activities reflective thought is never entirely suspended.[626] Cognitive activities such as mathematics, much of scientific inquiry, and professional communication practices are fundamentally deliberative.

As a starting point, consider the onset of reflexive thought after a period of habitual coping behavior: Dreyfus's notion of breakdown situations. One such scenario with respect to driving is depicted in Figure 2 below.[627] Recall that turning inward of attention in the moment of reflexive thought is constituted by formation of meta-representations of active mental states (whereby those state are made opaque). If I find myself in the situation of Figure 2 and no easy detour is available within the "horizon" of the situation, the task itself is questioned (explicitly represented as a proposition to be evaluated) – Can I turn back? Can I go tomorrow? Because this disengages my full attention from the activity at hand and pulls in unrelated information, it constitutes a breakdown situation, initiating conscious planning processes. On Dreyfus's account, the reflexive consciousness that reigns when the sequence of affordance-driven behavior is broken is distinct because it is characterized by conceptual, symbolic reasoning, while absorbed coping is fundamentally nonconceptual.

[626] Others invite but do not necessitate reflective deliberation. If I am playing a friendly game of chess with my son, I may be content to simply follow my intuitions and forego explicit deliberation, instead letting my mind wander to my mortgage troubles.

[627] Driving is not just a skill but a semantic practice because it can strongly color our experience of the world, for example as dangerous and insecurity-generating or instead as giving a sense of confidence and freedom. It is, furthermore a social practice because of interaction with other motorists on the road, as attested to by the strong emotions provoked at times in traffic.

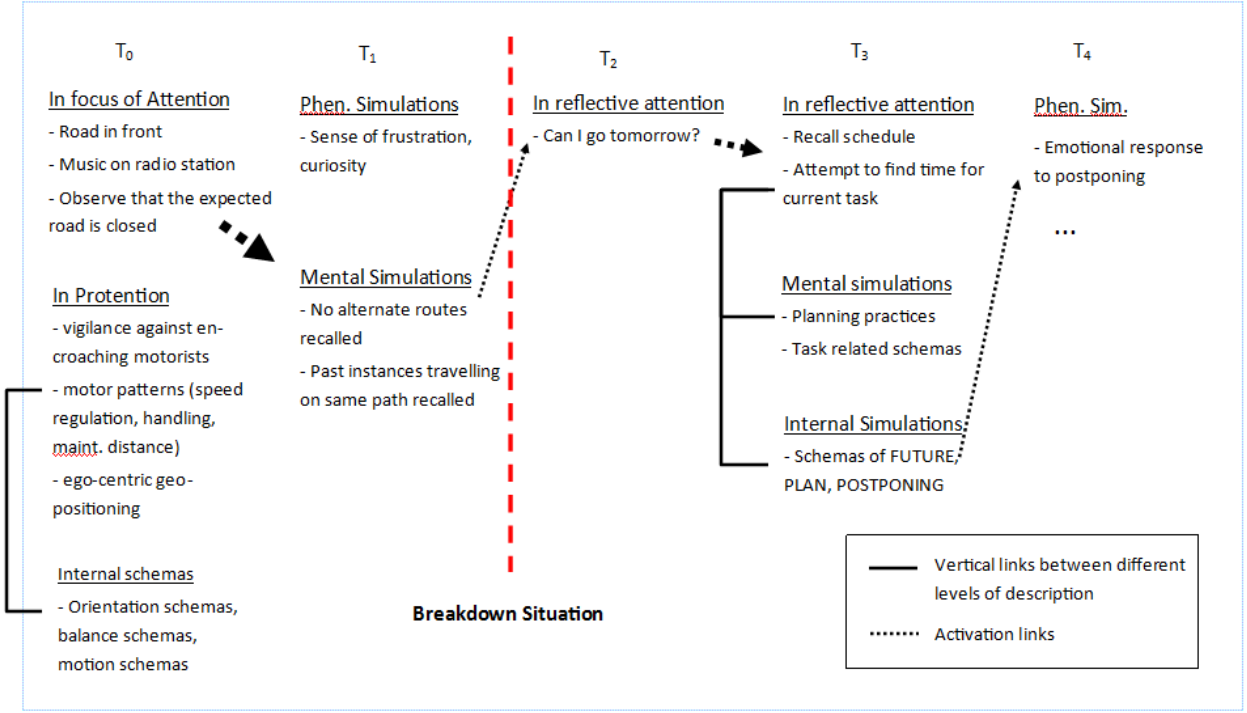

Fig 2. An instance of what Hubert Dreyfus calls a breakdown situation in the context of driving. The figure illustrates that reflective attention and deliberate introspection are engaged when a situation falls outside the boundaries of the practice currently engaged in. For simplicity, only some of the elements of each stage are shown.

I argue, in contrast, that both processes involve the use of embodied concepts. What distinguishes conscious deliberation is that the mental processes become opaque – available to focused internal attention – and, therefore, on a functional level, global connections that span far-flung domains may be formed. In absorbed coping, reasoning flows through established connections between schemas within "inner" or "outer horizons" of an activity. If in nailing a picture to the wall I find the wall is too soft, I can automatically reach for screws – the two instruments are encompassed by the same concept of mechanical coupling; one will prime the other. But I may have no existing schema that directly connects nailing to something like duct tape. The relevance of one for the other may only be revealed by generating abstracted (non-organic) properties of the physical objects in question, which outside the scope of the given practice. In a similar manner, the question of whether I can run the errand tomorrow in Figure 2 bumps the process up into phenomenal consciousness since it cannot be answered in the context of the practice of driving. This switch brings in wide-ranging considerations and invokes additional practices such as schedule making, often shifting to an objective point of view with respect to the preceding practice. The power and flexibility of deliberative consciousness derives from broadening the field of semantic complexes available at a given moment.

Deliberative thought thus presents a challenge for social theory because the influence of social structures ostensibly dissipates in such moments and unpredictability reigns. But to be intelligible as reasons or intentions – indeed to be cognitively accessible at all – the concepts or semantic connections employed in the course of deliberate reasoning (e.g., DUCT TAPE or RESCHEDULING in the above examples) must

nevertheless be framed in terms of the available conceptual repertoire. As in the case of object perception, the conceptual field in which a given semantic element is embedded automatically cues the most salient elements for further representation. As the diagram illustrates, even though attention is largely turned inward, not all mental processes involved can be phenomenally present, just as only some sensory perceptions can be attended to at any given moment. In Figure 2, the meta-representations of one's schedule and considerations against postponing the current task at T_3 are still experienced as transparent semantic elements rather than the mental simulations that they are. The lynchpin of the argument is that these higher order mental simulations have a pragmatic, active character just like the representations of the world in external perception. In the same way that a chair affords and at times signifies sitting mental states signify certain mental operations. The activation of a concept or simulation of a possible action will typically have an emotional and normative profile, and will signify or afford subsequent mental steps. Raising the possibility of postponing my task until tomorrow signifies the recall and simulation of existing plans for tomorrow and of alternate scenarios, the desire to postpone signifies justifying or rationalizing doing so, etc. Even as a person takes an objective stance toward a practice and its meanings, she necessarily does so via a transparent process of mental simulations. A man in Kabylia – the culture studied by Bourdieu – who receives a gift and ponders the appropriate riposte will not consciously invoke the full range of semantic schemas constituting the practice.

In short, while the binary distinction of practical and discursive modes of consciousness *is* meaningful and often useful, it masks the roles that intentionality and conceptual content play in the former and semantic structures and affordances play in the latter. A more accurate description can be made in terms of cognitive stances regarding particular actions which, on the informational level of description, translates into different degrees of attentional availability.[628] Thus within "absorbed coping" one has a purely "practical attitude" towards the practice(s) one is engaged in, where the representational nature of the embodied schemas are transparent and not phenomenally available. At other times, in what may be called "fragmented coping," one mentally objectifies a portion of the activity, making it opaque, while other mental routines occur transparently through sequences of affordances and significations outside of focal attention. These routines may be part of another full blown practice, as when self-consciously teaching a skill to another and therefore objectifying it as a skill. Or they may belong to what Schatzki calls "dispersed practices" (such as justifying, explaining, and planning) which are thin and generic, yet nevertheless grounded in complexes of sensorimotor elements. Fragmented coping simply captures the fact that while some mental representational processes can become explicit, they are always backed by a still-transparent process of affordances and signification.

This then is how embodied intelligibility situates intentional agency (control of what one does): conscious thought and decision making – such as choosing what one says – proceeds through *active affordances* of activated concepts. It is not a state of autarchic "pure intentionality" that somehow determines its own meanings and actions *ex nihilo*, but simply a state of being outside complete immersion in a single activity.

[628] This distinction of course closely tracks Heidegger's distinction in *Being and Time* between objects (tools) that are "ready-to-hand" that do not demand conscious thought for interaction and those "present-to-hand," which do, a distinction that informs Dreyfus's analysis.

Within such a state, the phenomenal sense of choosing one's course is a product of a partial awareness of the mental process leading up to the formation of an intention or a particular illocutionary intent. The sense of "commitment" peculiar to prior intentions is the phenomenal echo of the simulation of the goal state and its incorporation into an ego-centric reference frame, just as intelligibility is an echo of underlying mental representations. Intentions appear as purely personal creations, unattributable to any objectively identifiable origin, because much like the experience of meaning itself intentions do not survive the glare of direct attention. Nevertheless, as Nick Crossley points out, the influences that guide and shape thought and action – such as mental affordances and semantic schemas – cannot be said to "determine" agency.[629] Such a proposition does not make sense since they *constitute* the agent on a higher level of description – they are not something outside of the agent.

As to evaluative agency (control of what one values or desires through deliberate application of higher-order value frameworks, $agency_4$), it is similarly a process of following *normative affordances* within fragmented coping. Value frameworks are broad, foundational semantic frames whose primary nodes (such as CHEATING, FAIRNESS, HONOR, FAMILY) orient other motivational concepts and automatically afford or signify particular normative responses. On structural forms of explanation, $agency_4$ is theoretically impossible since these higher-order frameworks *are* the structures that guide action and, moreover, are hidden from introspection. For example, Parson's social roles and Geertz's notion of culture orient individuals' actions, but only implicitly, and are themselves unavailable for consequential evaluation by the subject. But within the theory of embodied semantics, these are simply representations, although because they are strongly connected to physiological (especially emotional) states, they are likely to be strongly reliant on *internal* simulations and so cannot always be made phenomenally present in their entirety. As with intentions, the sense of control over the evaluation derives from the partial awareness (opacity) of the mental process. The role of structural explanatory factors with respect to both forms of agency, then, is the constitution of mental affordances involved in those experiences.

Creative Agency

The theory of embodied meaning also informs the understanding of semantic creativity, $agency_5$. Creativity is of course a highly complex and varied phenomenon, the subject of a vast field of research.[630] As defined in chapter two, semantic creativity refers to the act of bringing "new" meanings into the world and, in practical terms, those meanings are usually encoded in a concept. Ordinarily, the attribution of creativity

[629] Crossley, "The phenomenological habitus," 114.

[630] For example, a recent literature review of neuroimaging studies of creativity finds a complete lack not only of successful findings, but even of theoretical agreement on the nature of the phenomenon studied, concluding that "not a single currently circulating notion on the possible neural mechanisms underlying creative thinking survives close scrutiny" (Arne Dietrich and Riam Kanso. "A review of EEG, ERP, and neuroimaging studies of creativity and insight." *Psychological bulletin* 136.5 (2010): 822, 845). Thus the following discussion stays at a higher level than the exploration of meaning above. A recent survey of cognitive research on creativity can be found in Thomas B. Ward, Steven M. Smith, and Jyotsna Vaid Eds. *Creative Thought: An investigation of conceptual structures and processes*. American Psychological Association, 1997.

further requires that the novel concept must have value – with regard to language, simply producing a new grammatically correct sequence of words is not considered creative. For present purposes however, this criterion can be relaxed, since the question is only one of going beyond what is currently known or explicitly specified. The range of phenomena we want to explain thus extends from a new combination of extant concepts ("blue peach") to conceptual changes that wholly transform one's view of the world. Forgoing a detailed analysis, we can draw several conceptual distinctions relevant for sociology and the question of how individuals shape the social order.

There are three dimensions along which to map semantic creativity. One is the scale of innovation involved. Some researchers like Margaret Boden and Michelene Chi distinguish "transformational" or deep conceptual change from ordinary creativity.[631] On Boden's account, ordinary creativity involves operations within a given "conceptual space," while transformational changes alter that space through switching out some of its underlying generative rules. In Chi's view, the deepest conceptual change involves moving a concept between major branches on the ontological hierarchy, for example realizing that thoughts are processes not states, or heat is a process rather than substance.[632]

The second dimension refers to the cognitive operations involved in the creative act. The commonly referenced operations can be grouped into three broad types:

(a) *Property/rule instantiation/overloading*. If concepts are clusters of sensorimotor elements, then novel concepts can be constructed by adding new elements, or replacing or "embellishing" existing ones. Perceptual Symbols Systems, for example, are compressed version of online experience that discard a lot of specific information about a concept, which allows it to generate a wide variety of instances. One's CAR concept is therefore agnostic about possible wheels, and one can imagine – or identify – a car with giant tractor-sized wheels or one with the tiny wheels of a clown car or even square wheels. Hence, PSS concepts are productive. Boden calls the form of creativity that instantiates concepts with novel properties "exploratory," because it explores a conceptual space that is not itself altered in the process. However, such combinations are typically highly constrained because they tend to use well-known property slots of a concept or generative rules.[633] For example, "purple carrot" overrides the standard color property (orange) of the concept CARROT with a new value, as opposed to creating a new property – "an ideologically correct carrot" (as one might have humorously described a red carrot in the Soviet Union) – which would be a much less likely construction.

(b) *Novel schema application*. New concepts can also result from a novel application of an existing schema or concept. Sewell captures this idea very elegantly with his notions of transposability of virtual schemas and polysemy of resources. Basic

[631] Margaret A. Boden. "Computer models of creativity." *AI Magazine* 30.3 (2009): 23; Michelene T. H. Chi. "Creativity: Shifting across ontological categories flexibly." in *Creative Thought*.
[632] Ibid., 225-7.
[633] Edward J. Shoben and Christina L. Gagne. "Thematic Relations and the Creation of Combined Concepts." in *Creative Thought*; and Edward J. Wisniewski. "Conceptual Combination: Possibilities and Esthetics." in *Creative Thought*.

versions of analogy and metaphor are instances of this mechanism. Thus Johannes Kepler cleverly exploited the comparison of the force of gravity to light and magnetism (suggested by their schematic similarity) to draw an important conclusion about the rate of force dissipation over distance.[634] Chi specifically describes application of a schema across ontological boundaries as the source of the "aha" experience of true creativity. Boden calls the formation of such new associations "combinational creativity," as it links existing semantic elements in new ways. These associations may exploit a situational, perceptual, or abstract similarity made apparent in mental simulations.

(c) *Inference from embodied simulation.* Finally, one can draw novel inferences from prospective, open-ended embodied simulations.[635] Although its role in creativity has often been unrecognized by researchers in creativity (e.g., Margaret Boden), mental modeling is essential for concept-extending inferences. Mental simulation is a particularly powerful source of novelty when combined with analogy. Thus Nancy Nersessian recounts how James Maxwell conceived the electromagnetic field equations by constructing and working through an analogy to mechanical stresses, which revealed both a mathematical relationship and an imagistic representation of the structure of that relationship.[636] In such cases the analogies do the inferential work. One account of how this works is offered in the previously mentioned work of Fauconnier and Turner where simulation (which they discuss in terms of instantiation of "mental spaces") allows the reading off of emergent properties of complex conceptual blends.[637] To take a previously used example, the labeling of a particularly sloppy surgeon a "butcher" is suggested by the physical similarity of rough cutting (analogy). However, the emergent property of careless incompetence is not present in either input to the blend, but is readily produced by running the mental simulation of the blend (a surgeon who cut as roughly as a butcher would be incompetent. On the other hand, a butcher with the finesse of a surgeon with yield the opposite judgment). The creative value of embodied simulations derives from the fact that the human mind is far more adept at drawing perceptual inferences than carrying out logical and symbolic reasoning (precisely the opposite of modern computers). This is precisely the intuition behind philosophy's common use of thought experiments.

It should be evident that these mechanisms of creativity are not entirely independent, as for example, both (a) and (c) involve mental simulation and (b) and (c) both involve

---

[634] Dedre Gentner et al. "Analogy and Creativity in the Works of Johannes Kepler." in *Creative Thought*.

[635] Mary Hegarty. "Mechanical reasoning by mental simulation." *Trends in cognitive sciences* 8.6 (2004): 280-285.

[636] Nancy J. Nersessian. "How do scientists think? Capturing the dynamics of conceptual change in science." *Cognitive models of science* 15 (1992): 3-44, 16-17.

[637] Fauconnier and Turner, *The way we think*. The substance of Fauconnier and Turner's work is "blending theory," which attempts a technical and quite detailed account of semantic operations in the mind. But while theirs is one of the more elaborated and recognized theories today, many of the details are provisional. But simulation as the underlying engine of concept formation is likely to remain in any supplanting account.

building connections between two existing concepts. And there may of course be additional operations involved in creativity at this and other level of description.

Finally, the third dimension of semantic creativity distinguishes instances according to the level of consciousness or intentionality involved, which brings us to the primary question of how creative agency can coexist with structural factors in explanations. The answer is that creative agency is a matter of properly describing the interaction between mental and phenomenal processes (in Metzinger's terms), in the same way that intentional agency falls out of a proper representational description of an intention. On one side of the scale of intentionality we can put what might be called "intentional creativity" that occur in periods of fragmented coping. This encompasses Sewell's description of individuals self-consciously bending meanings, such as the self-serving "inversion of valuations" that Nietzsche attributed to the Jews, reassigning moral superiority to the weak and downtrodden.[638] These are cases of individuals consciously using concepts contrary to convention through transposing schemas and exploiting the polysemy of physical resources, which is possible because most activities involve an intersection of multiple practices. Indeed Sewell locates agency as such precisely in this application of existing mental schemas to new classes of instances. Intentional creativity is at play when situated agents "act in novel ways for reasons of their own so as to transform both themselves and this background" and use "language, discourse or traditions for reasons of their own."[639] In some instances the actors already have some form of the novel meaning in mind (as a phenomenal simulation) which, according to the preceding argument, is constituted out of existing schemas and conceptual knowledge. In other cases, new concepts may be outcomes of consciously-guided conceptual investigation, such as Kepler's and Maxwell's uses of analogy and analogical simulation (although the selection of appropriate analogies is itself rarely intentional). Because the schemas in these instances of creativity derive from other practices likely shared by one's peers, they face a low barrier to understanding and acceptance.

It turns out, however, that intentional creativity of this type is surprisingly constrained. Studies by Thomas Ward reveal that we possess a "structured imagination" – "the basic tendency for the characteristic properties of existing concepts to be projected directly onto the novel instances generated in conceptual expansion."[640] In other words, whatever the creative mechanism at play – property instantiation, analogy, or modeling – there is a strong tendency to stay near the familiar: people tend to focus on commonly replaceable properties in the first case, use established and previously successful analogies in the second case, and emphasize typically salient properties of physical systems in the third case. For example, in one of Ward's experiments investigating creative imagination, subjects were asked to draw alien life forms. Even when explicitly prompted to be creative, most subjects reproduced basic properties of life on earth –

---

[638] Friedrich Nietzsche. *Beyond Good and Evil: Prelude to a Philosophy of the Future*. (Cambridge University Press, 2002), §195.

[639] Mark Bevir, "Governance and Interpretation: What are the Implications of Postfoundationalism?" *Public Administration* 82.3 (2004): 605-625, 612.

[640] Thomas B. Ward, Steven M. Smith, and Jyotsna Vaid. "Conceptual Structures and Processes in Creative Thought," in Thomas B. Ward, Steven M. Smith, and Jyotsna Vaid, Eds. *Creative Thought: An investigation of conceptual structures and processes*. American Psychological Association, 1997, 10.

bilateral symmetry, eyes, and legs.[641] Similarly, in an observational study of biology laboratories, Kevin Dunbar found that most analogies used in the process of group scientific deliberation are within-domain, rather than connecting to other domains as in the case of Kepler and Maxwell.[642] Finally, creativity in language is constrained by the necessity of being understood. In practical instances of word extension, the novel application must be sufficiently related to known uses of the word to be successful.[643] In short, intentional creative agency is strongly grounded in extant semantic structures.

At the other end of the spectrum from intentional creativity is improvisation within absorbed coping, where the end state isn't present in the mind ahead of time on any level. This form of improvisation seems to primarily draw on property instantiation and schema association. Bourdieu in particular viewed improvisation as the primary moment of agency, where past experience must be adopted to the present situation. But as I noted in chapter two, his form of improvisation hardly fits the definition of creative agency. An essential aspect of a creative act is that it is purposeful – intentional – though the intention behind it need not be conscious; creativity is distinct from intentionality but is premised upon it. But Bourdieu's improvisation is itself guided by the habitus and not intentional in this way.

Improvisation can be conceived more broadly, as a process where the actor subconsciously draws on all three forms of creative mechanisms listed above to handle limited novelty without entering a breakdown situation. Reaching for a different tool or making a detour while driving is improvisation, but the ultimate domain of improvisation – where it is expected and abundant - is jazz. In a recent study of creativity in the context of jazz performance, Charles Limb and Allen Braun found that creative improvisation tends to be incompatible with reflexive monitoring.[644] This was both self-reported and evidenced by the neural activation patterns during performance, where the areas associated with internal motivation and self-expression were activated, while those associated with conscious monitoring, evaluation and correction were deactivated. Improvisation is best characterized as internally motivated flow of mental representations, phenomenally experienced as intuition (i.e., a non-conceptual perception of some coherent pattern which is itself initially subconscious but which can nevertheless guide behavior or thought).[645] Limb and Braun's findings are in accord with other literature that similarly reports a trade-off between analytic thought and planning and creative thought.[646] Whereas analytic thought is associated with focused attention, creative

---

[641] Thomas B. Ward, Merryl J. Patterson, and Cynthia M. Sifonis. "The role of specificity and abstraction in creative idea generation." *Creativity Research Journal* 16.1 (2004): 1-9.

[642] Kevin Dunbar. "How Scientists Think: On-Line Creativity and Conceptual Change in Science." in *Creative Thought*.

[643] Gregory Murphy. "Polysemy and novel word meanings," in in Thomas B. Ward, Steven M. Smith, and Jyotsna Vaid, Eds. *Creative Thought: An investigation of conceptual structures and processes*. American Psychological Association, 1997, 247.

[644] Charles J. Limb and Allen R. Braun. "Neural substrates of spontaneous musical performance: an FMRI study of jazz improvisation." *PLoS One* 3.2 (2008).

[645] For an interesting discussion of intuition see Kenneth S. Bowers, et al. "Intuition in the context of discovery." *Cognitive psychology* 22.1 (1990): 72-110.

[646] Joseph Kasof. "Creativity and breadth of attention." *Creativity Research Journal* 10.4 (1997): 303-315; Pamela I. Ansburg and Katherine Hill. "Creative and analytic thinkers differ in their use of attentional resources." *Personality and Individual Differences* 34.7 (2003): 1141-1152.

processes tend to occur in the context of diffuse attention which is more sensitive to peripheral cues, increasing the possibilities of new connections.

These two categories of guided creativity in the course of fragmented coping and improvisational, unguided creativity are at opposite ends with respect to the extent of cognitive control exercised by the actor and, equivalently, inwardness of attention. Between them, we can identify other modes of creativity, for instance unintentional (not goal-state guided) semantic innovation outside of absorbed coping. A number of studies have found that creativity is correlated with increased abstractness of thought – people will come up with more novel solutions to a problem if they are encouraged to view it more abstractly.[647] Doing so means going beyond the common schemas and connections associated with a particular situation, but without consciously seeking a particular end. Take for example the semantic innovation in the French National Assembly described by Sewell. The new semantic clusters denoted by the terms 'revolutionary action,' 'liberty,' and 'the people' were not intended by any one participant, but arose over a period of discussion which clearly had a deliberative character (hence fragmented coping) but were not specifically aimed at redefining those terms. The record of the Assembly's deliberation would probably allow one to reconstruct the schemas at play and understand how they enabled this instance of group creative agency. Figure 3 below demonstrates another instance of innovative fragmented coping (though taking place within a single hypothetical person), this time within the Occupy General Assembly. It shows the sequence of schema associations and mental simulations and modeling of the implications of expelling of member of the assembly.

[647] Thomas B. Ward et al. "Creative Cognition" in Robert J. Sternberg ed. *Handbook of Creativity* (Cambridge: Cambridge University Press, 1999), 198; Thomas B. Ward. "Cognition, creativity, and entrepreneurship." *Journal of business venturing* 19.2 (2004): 173-188; Sridhar S. Condoor, Harvey R. Brock, and Christian P. Burger. "Innovation through early recognition of critical design parameters." *Meeting of the American Society for Engineering Education,* Urbana, IL. June. 1993.

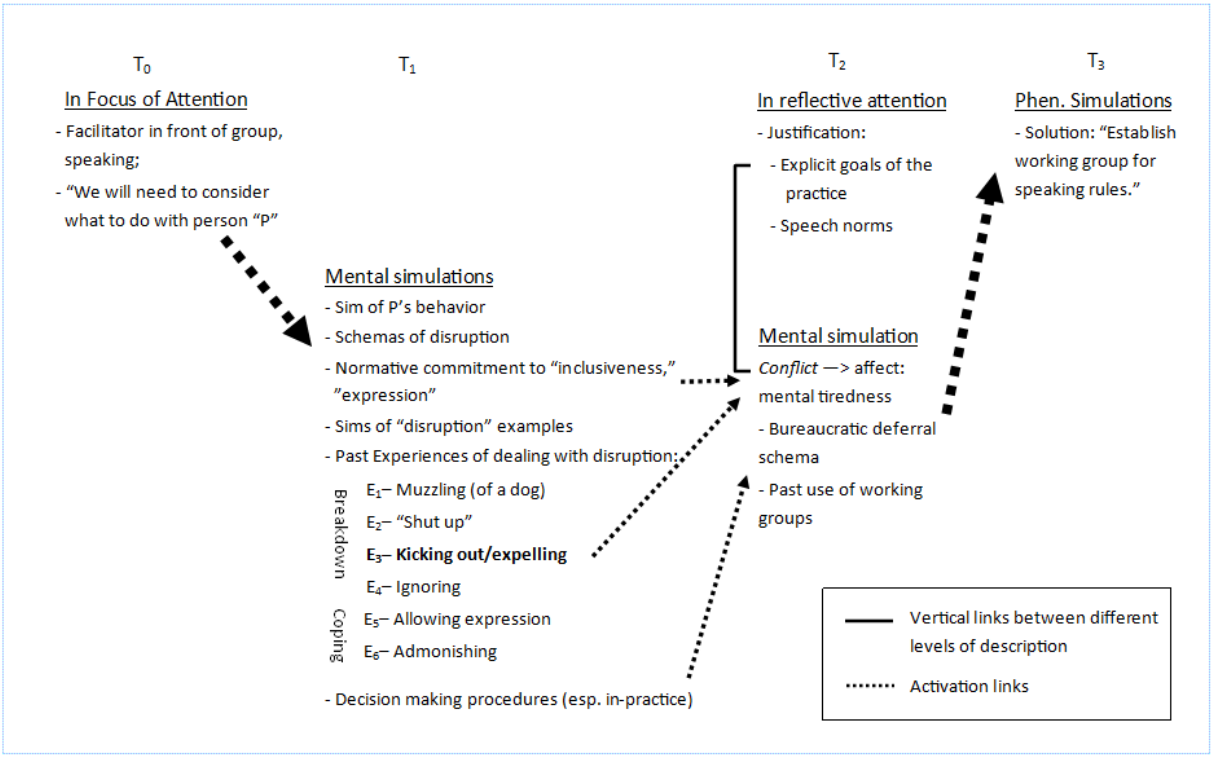

Fig 3. A hypothetical moment of improvisation within an Occupy GA meeting, based on actual discussions in the group's internet forum, illustrating how mental simulations of practice-based schemas can yield a new idea. In this scenario, E_3 is selected as the most salient response out of the mentally simulated possibilities through a conjunction of person-specific factors. Similarly, whether the conflict between the value of inclusiveness/expression and the entertained solution becomes conscious and influential in the outcome depends on how a person internalizes this practice. Once again, for simplicity, only some of the elements of each stage are shown.

What does this analysis of creative agency achieve? By looking at the mechanisms of ordinary engagement in practice, we see how mundane innovation and even groundbreaking creativity can be understood through the theories of embodied meaning, complex perception, and the representational model of the subject described earlier. The analysis also indicates that even in the course of a highly deliberative practice, deeply-seated embodied schemas, situational experience, and practical knowledge extensively contribute to the eventual outcomes. Instead of an implausible alternation between structure/routine/habit and agency, such as the neostructuralist model of continuity punctuated by "critical periods" where agency or chance is briefly dominant, here, purposes and reasons are recognized as being active in the ordinary times, while intentional and creative agency is understood as being exercised *with respect to* extant practices and semantic structures, reliant on a stream of "formulated and formulaic" chunks of routine. The evolution of practices between critical periods is brought within the scope of social theory.

C. On the Causal Powers of Mental States

Any serious theory of subjectivity must face the specter of mind-body dualism. One of the ostensive benefits of Schatzki's account is its solution to this dilemma, which consists

of denying an independent ontological status to mental states. He insists that mental states are not causal, that "our physical being simply causally brings about the phenomena that express socially instituted conditions."[648] But this only complicates matters because if causality flows from neurophysiological states to person-level expressions, then how can the semantic medium of "socially instituted conditions" and "social practices" exercise influence over actual goings on? Are they not then purely epiphenomenal? Surely if practices are to hold our interest they must have causal impact in the real world. Schatzki skirts the issue.

The representational account of the subject set out above presupposes a monist (or more specifically emergentist) view of the relation between mind and body. A full defense of this position cannot be provided here. Nor is one necessary, since most of the relevant literature takes it for granted that language, culture and the like are causally efficacious through mental states. For a sustained defense the reader is referred to John Searle's defense of biological naturalism which I find to be essentially sound.[649] Still, a brief presentation of the argument in favor of this position is helpful to outline the logic and to fill in some small gaps in Searle's argument.

Searle argues that mental states and neurophysiological states of the brain are simply different levels of description of the same reality and are therefore equally causally potent. The argument starts from the weak physicalist claim that traces to Donald Davidson that mental states supervene on physical states of the brain. That is to say, any two states indiscernible at the physical level will be indiscernible at the mental level, or, equivalently, that there can be no difference at the mental level without a physical difference or, again, that there is a neural correlate for any mental state. At bottom this is a very basic claim; it only rules out the possibility of metaphysical origins of mental states.[650] Next, and almost as uncontroversial, is the claim that mental processes "emerge" from the interaction of elements at the physical level, meaning that their properties are not predictable from the rules and entities of the base layer.[651] This says nothing yet about *how* properties on one level arise from or depend on those of a different level, merely that the properties observed at the higher level are not *evident* at the lower level of description on which they supervene, in the sense that the macroscopic property of temperature emerges from energy states of particles at the molecular level but

---

[648] Theodore R. Schatzki, *Social Practices: A Wittgensteinian Approach to Human Activity and the Social* (Cambridge: Cambridge University Press, 1996), 65, 33.

[649] John R. Searle. "Consciousness, explanatory inversion, and cognitive science." *Behavioral and Brain Sciences* 13.04 (1990): 585-596; John R. Searle, Daniel C. Dennett, and David John Chalmers. *The mystery of consciousness*. New York Review of Books, 1997; John R. Searle. "Dualism revisited." *Journal of Physiology-Paris* 101.4 (2007): 169-178.

[650] At the same time, the claim is not self-evident. Fred Dretske, for example, attempts to argue against it (Fred Dretske. "Phenomenal Externalism or If Meanings Ain't in the Head, Where Are Qualia?." *Philosophical Issues* (1996): 143-158.)

[651] Thus the patterns and dynamics of cellular automata in Conway's "game of life" are not predictable from the basic rules that govern cell behavior. The "emergence" relation does not yet have a standard definition unless qualified. For present purposes are relatively loose definition will suffice. For a discussion of emergent properties see Nicolas Brodu. "A synthesis and a practical approach to complex systems." *Complexity* 15.1 (2009): 36-60; Terrence W. Deacon. "The hierarchic logic of emergence: Untangling the interdependence of evolution and self-organization." *Evolution and learning: The Baldwin effect reconsidered* (2003): 273-308; and Michael Silberstein and John McGeever. "The search for ontological emergence." *The Philosophical Quarterly* 49.195 (1999): 201-214.

is not detectable as such at that level. As Jaegwon Kim points out, these two claims are compatible with a variety of accounts of mind-body relations, in particular, it is compatible with both representationalist theories of mind as that presented here and Searle's anti-intentionalism.[652]

Searle then contends that the mental and physical (neural) domains are linked by causal *reduction*: "consciousness [is] causally reducible to neuronal processes… because there is nothing going on which cannot be causally accounted for by neuronal processes."[653] At times, he even states explicitly that neural states *cause* particular mental states.[654] Kim notes that this formulation leads to causal overdetermination.[655] Suppose mental state M is caused by neurophysiological state P in the sense used above. M causes another mental state M* in the traditional sense that a headache causes a desire to take aspirin. But M* is also caused by its own base neural state P*. M* thus appears to be causally overdetermined. Searle responds that there is no puzzle because the "vertical" causation he has in mind is not of a traditional Humean kind, but of the sort at play when we say that "The solidity of the ice is causally explained by the behavior of the molecules." Because the two forms are different, there is no threat of causal overdetermination as Kim suggests.[656]

But there is a conceptual problem in Searle's response. Unlike standard, temporal causality which is unidirectional (strictly moving forward in time), this vertical causality must be symmetric to account for top-down causation that Searle attributes to it: "my heating the ice causes changes in molecule movements" (M causes P*). The idea of top-down causation makes sense because it is only a partial picture of the actual process, which is better represented as P/M → P*/M*, where any factor on the left side can be said to "cause" any factor right. On the other hand, the relations of causal reducibility that Searle posits between the different levels of descriptions are *asymmetric* (indeed the emergence relation must be asymmetric since identical mental states may arise from distinct physical states but the reverse is not true; to check our intuition: a wide variety of energy distributions of particles in a gas can yield exactly the same temperature reading).

I think that Searle's underlying intuition is correct, but his exposition is a terribly infelicitous – if not incoherent – overloading of the concept of causality. To say that a phenomenon at one level of description "causes" itself on a different level of description just confuses the issue further. To wit, turning the ignition switch in a car initiates a sequence of events that activates the engine: the ignition switch *causes* the engine to start. But one does not say that the movement of the pistons *causes* the engine to work. The two events are not linked by temporal causality but are different descriptions of the same event. Rather than causality (or the more mysterious notion of causal reducibility), the relation Searle has in mind is one of nomological mutual necessity (that is, necessity in our universe).[657] This formulation reasonably explains how mental states like intentions

---

[652] Jaegwon Kim. *Mind in a physical world: An essay on the mind-body problem and mental causation*. MIT press, 2000, 12.

[653] Searle 2007, 175. See this article for the argument that causal reducibility flows from supervenience.

[654] John R. Searle. "Consciousness, the brain and the connection principle: a reply." *Philosophy and Phenomenological Research* (1995): 217-232.

[655] Kim, *Mind in a physical world*, 47-50.

[656] Searle, "Consciousness, the brain and the connection principle," 218.

[657] The flaw in Searle's justification of causal relations cited above (note 294) is the statement that neural processes can "account for" higher ones. This rings true since the base state "determines" the emergent

may have consequences in the physical world. With this slight modification to Searle's monism we can also straightforwardly reject the assertion of epiphenomenalism of consciousness as nomologically impossible, since brain states *are* mental and phenomenal states on different levels of description and thus cannot be separated under the physical laws of our universe. Epiphenomenalism (eliminativism) is a dualist thesis, premised on the possibility of divorcing the underlying (neural) processes from consciousness, viewing the latter as a by-product with no independent functional properties. On a monist view, it is an incoherent position, since the two levels are the same processes under different levels of description.

VI. The Social Conditions of Embodied Agency

So far the chapter has focused exclusively on meaning as entertained by an individual. But a crucial aspect of embodiment remains to be addressed: in the real world, most activity take place in a social context, which necessarily affects how it is experienced and understood. On this dimension too the literature has recently seen a profound shift. On the classical views in philosophy and psychology (with some notable exceptions like American Pragmatist), human beings enter social activity as fully formed and autonomous minds: reflective agents first and members of society second.[658] Thomas Hobbes's account was both emblematic of this view of sociality and instrumental in erecting an enduring intellectual edifice for it. Although over the past century, many assumptions behind this view have been invalidated, it received a new lease on life in the guise of the "theory theory" school in psychology, which holds that individuals interpret and predict the actions of others by theorizing what beliefs and attitudes they may have and adjusting those hypotheses as new information arrives.

Theory theory draws considerable support from developmental psychology.[659] Still, although the debate is by no means settled and each may have an element of truth,

---

state but not vice versa. But here, to "account for" does not mean to provide causes or "explain" – this can only be accomplished by a theory that shows how/why physical states give rise to mental states, which we currently lack. It simply means to identify or fix – which is a symmetric relation when the emergent properties exist. In this sense, one may equally "account for" a neural state by reference to the mental state. There is no good reason to privilege the base layer in this way. The symmetry principle as applied to consciousness is counterintuitive, but the situation is much more clear with respect to emergent properties in the non-biological world. When we detect a particular temperature, we can be (nomologically) certain that the underlying particles have a particular average kinetic energy. One might object that the relation is asymmetric exactly for this reason - the reverse direction does not exhibit such necessity (detecting kinetic energy of particles only ensures a particular temperature under additional constraints – such as a minimum number of them interacting for a higher level phenomena to emerge – and some configurations of the base state may have no representation at the emergent level). But granted this caveat, emergent relations are symmetric.

[658] Anderson, "Embodied cognition"; Lakoff and Johnson 1999.

[659] Alison Gopnik, Andrew N. Meltzoff, and Peter Bryant. *Words, thoughts, and theories*. Vol. 1. Cambridge, MA: MIT Press, 1997; Simon Baron-Cohen. *Mindblindness: An essay on autism and theory of mind*. MIT press, 1997. Much of this support comes from observations that children's sophistication in understanding and predicting other people grows in parallel with the ability to attribute increasingly complex mental states to others. False-belief experiments that employ non-verbal measurements such as gaze tracking suggest that children develop an implicit theory of mind as early as 18 months, years before they can consciously make use of it (Wendy A. Clements and Josef Perner. "Implicit understanding of belief." *Cognitive development* 9.4 (1994): 377-395; David Buttelmann, Malinda Carpenter, and Michael

the evidence currently favors the alternative account of "simulation theory," which holds that social thought need not involve forming hypotheses and reasoning about others' beliefs, however implicitly, but is instead based on simulating (or perhaps more accurately, emulating) their mental states as one's own.[660] Just as the mirror neurons in the motor system are recruited in interpreting another's action by matching them to one's own motor sequences, I intuit another's motivation and beliefs by (subconsciously) simulating what *I* would think or feel in their place. Indeed, mirror neurons are the keystone of the modern simulation theory approach.

In this section I argue that cognitive science reveals human beings to be social subjects pre-reflectively – the presence of others takes effect at the pre-conceptual stage of perception. We automatically engage simulations and representations of our peers, and these simulations echo into phenomenal consciousness along with perception of affordances, emotional and normative valence, etc. This provides a path for social patterns to play a role in the constitution of individual agency and for a social subject to come into being without mediating webs of propositional belief. I will first consider a few low level mechanisms of social co-presence. I will then use Charles Taylor's social ontology to organize the discussion of more complex social processes such as conversation and to show how the shared understandings and collective identity that we find in the social realm reduce ontologically to mental states, attitudes of individuals, and configurations of attention between them, a claim that will be critical in the following section where I address Stephen Turner's objection to macrosociology.

It is now widely recognized that a number of subconscious processes are involved in social interaction. The most studied of these processes is automatic (nonconscious) mimicry, which forms a direct link between perception and behavior.[661] Infants begin to mimic facial expression very soon after birth and adults are similarly predisposed to mimic posture, simple motions, facial expressions, speech patterns, and even moods of those around them during ordinary interaction.[662] Mimicking behavior has been shown to

---

Tomasello. "Eighteen-month-old infants show false belief understanding in an active helping paradigm." *Cognition* 112.2 (2009): 337-342). This capacity progresses from attributing first-order beliefs ("he thinks there is candy in the box") at approximately four years of age, to second-order beliefs ("she doesn't know that I know there is candy in the box") around the age of six.

[660] Vittorio Gallese and Alvin Goldman. "Mirror neurons and the simulation theory of mind-reading." *Trends in cognitive sciences* 2.12 (1998): 493-501. Simulation theory is particularly plausible given the observations of very young children that are not yet capable of theorizing about states of mind (Felix Warneken and Michael Tomasello. "Altruistic helping in human infants and young chimpanzees." *Science* 311.5765 (2006): 1301-1303). By the time mental state attribution is evidenced (even implicitly), children already exhibit highly complex social interaction, suggesting distinct brain centers are responsible for the two capabilities. In other words, it appears unlikely that a two year-old interacts with her mother by reasoning from the beliefs attributed to her, even subconsciously. See also Alvin I. Goldman. "In defense of the simulation theory." *Mind & Language* 7.1 (2007): 104-119; Gallagher (2005); Karen Shanton and Alvin Goldman offer a hybrid that, however, emphasizes mirror-neuron based simulation capacities ("Simulation theory." *Wiley Interdisciplinary Reviews: Cognitive Science* 1.4 (2010): 527-538). For a recent discussion of differences among the advocates of simulation theory see Gallagher and Zahavi 2007, 192.

[661] Nonconscious mimicry has been actively studied since 1964 (Chartrand and Bargh 1999); Janet B. Bavelas, et al. "" I show how you feel": Motor mimicry as a communicative act." *Journal of Personality and Social Psychology* 50.2 (1986), 322.

[662] For instance, in controlled experiments, participants are likely to imitate simple behaviors of other participants (confederates) such as smiling or non-smiling, foot shaking, and face rubbing (Jessica L.

be involved in establishing affiliation links, facilitating rapport, and, at least in the laboratory environments, fostering trust and cooperation between participants in an activity.[663]

A number of other low level mechanisms for organizing social interaction appear no less important, such as invocation of complementary (rather than symmetric) behaviors and turn taking, a behavior trained in infancy and virtually unique to humans.[664] Even more interesting, however, is the complex processing that takes place below conscious awareness to directly model and interpret the intentions and emotions of others. One of the functions of mirror neurons appears to be to serve as rudimentary goal detectors, meaning that (suppressed) imitation is a first step toward social engagement.[665] The goal of an action is determined by matching the observed behavior to a known action schema in the observer's motor repertoire, whose goal is already known.[666] This includes very simple "goals" like that of grasping an object (inferred from observing a conspecific reaching for it), but also of the subsequent "goal" of putting it into one's mouth. This goal mapping is one of the components of protention, generating the fluidity of social experience. Similarly, while emotions clearly have complex conceptual components and cultural nuance, the calibration of emotional responses and attitudes to one's peers within sustained social interaction relies to a great extent on biologically hard-wired cues such

---

Lakin, et al. "The chameleon effect as social glue: Evidence for the evolutionary significance of nonconscious mimicry." *Journal of nonverbal behavior* 27.3 (2003): 145-162; Chartrand and Bargh 1999).

[663] For example, experiments show that those who mimic more are perceived more positively, and those who consciously want to be perceived positively tend to mimic more (Jessica L. Lakin and Tanya L. Chartrand. "Using nonconscious behavioral mimicry to create affiliation and rapport." *Psychological Science* 14.4 (2003): 334-339; Olivier Oullier, et al. "Motor synchrony and the emergence of trust in social economics games." *Frontiers of Computational Neuroscience. Conference Abstract: Computations, Decisions and Movement*. 2010).

[664] Bruce E. Wexler. *Brain and Culture: Neurobiology, ideology, and social change*. 2008, 111-2. Thus Larissa Tiedens and Alison Fragale argue complementary behavior is important in the "negotiation of status positions in relationships in which no prior hierarchy exists… Automatic nonverbal complementarity may be one reason that hierarchies are so common and widespread" (Larissa Z. Tiedens and Alison R. Fragale. "Power moves: complementarity in dominant and submissive nonverbal behavior." *Journal of Personality and Social Psychology; Journal of Personality and Social Psychology* 84.3 (2003), 558). See also Vittorio Gallese, et al. "Action recognition in the premotor cortex." *Brain* 119.2 (1996): 593-609; Roger D. Newman-Norlund, et al. "The mirror neuron system is more active during complementary compared with imitative action." *Nature neuroscience*10.7 (2007): 817-818; and Luisa Sartori, et al. "From simulation to reciprocity: The case of complementary actions." *Social neuroscience* 7.2 (2012): 146-158.

[665] Oberman and Ramachandran survey evidence that links imitation deficits to deficits in social understanding such as those associated with autism (Lindsay M. Oberman and Vilayanur S. Ramachandran. "The simulating social mind: the role of the mirror neuron system and simulation in the social and communicative deficits of autism spectrum disorders." *Psychological bulletin* 133.2 (2007): 310).

[666] Maria Alessandra Umilta, et al. "I know what you are doing: A neurophysiological study." *Neuron* 31.1 (2001): 155-166; Marco Iacoboni, et al. "Grasping the Intentions of Others with One's Own Mirror Neuron System." *PLoS Biology* 3.3 (2005): e79; Leonardo Fogassi, et al. "Parietal lobe: from action organization to intention understanding." *Science* 308.5722 (2005): 662-667. On the other hand, Marcel Brass and colleagues found that in more complex or unfamiliar situations where the goal of an action isn't immediately clear, brain activity patterns suggest more conceptually involved processing is taking place (Marcel Brass, et al. "Investigating action understanding: inferential processes versus action simulation." *Current Biology* 17.24 (2007): 2117-2121). However, the point of practices – in most cases – is precisely to minimize such instances in favor of more automatic goal recognition.

as facial expressions, tone of voice, and body posture.[667] Clinical, behavioral, and brain imaging studies show that – as with intentions – recognition of emotions appears to involve sub-phenomenal somatosensory simulation via mirror neurons.[668] Patients with real or temporarily invoked lesions in the area of the brain responsible for the somatosensory function of the face are unable to recognize facial expressions of emotion, presumably because the lesions inhibit the simulation of performing the observed expressions.[669]

Consequently, it turns out that Schatzki's Wittgensteinian account was partly right and partly wrong: we perceive emotions through their external expression, but we do so by automatically simulating those expressions. The understanding of others' emotions and intentions, mutual comportment, and other aspects of social presence are as basic to being present in the world as sensory perception and the affordances of physical objects. In other words, we are not agents who happen to live in a social environment, but are social from the ground up.

Out of these mechanisms arises a hierarchy of social subjectivity, of which Taylor gives a good description. At the most primitive level, a social or collective subject is constituted when two people physically enter and occupy each other's awareness.[670] Most tangibly, this occurs in instances of physical "dialogical interactions," where "the agent understands and constitutes him or herself as an integral part of a 'we.'"[671] The prototypical examples are dance and conversation because the obvious physical rhythm of the activity forces the participants to synchronize. The statements "we are talking" or "we are dancing" point to a genuinely new kind of "we" subject that cannot be reduced to

---

[667] Emotional understanding is clearly nonpropositional, since infants as young as 5-7 months track and respond to the emotional expressions in their surroundings, long before mental state attribution plausibly begins (Arlene S. Walker. "Intermodal perception of expressive behaviors by human infants." *Journal of Experimental Child Psychology* 33.3 (1982): 514-535). We also know that children produce remarkably similar *basic* facial and vocal responses to emotional stimuli across the world, suggesting there is little involvement of higher cognition (Paul Ekman, et al. "Universals and cultural differences in the judgments of facial expressions of emotion." *Journal of Personality and Social Psychology* 53.4 (1987), 712; Paul Ekman, *Darwin and facial expression: A century of research in review*. New York: Academic Press, 1973). Moreover, blind and deaf children generally have the same emotional face expressions as normal children (David Matsumoto and Bob Willingham. "Spontaneous facial expressions of emotion of congenitally and noncongenitally blind individuals." *Journal of Personality and Social Psychology* 96.1 (2009): 1).

[668] For a discussion of the disgust response in this light, see Bruno Wicker, et al. "Both of Us Disgusted in *My* Insula: The Common Neural Basis of Seeing and Feeling Disgust." *Neuron* 40.3 (2003): 655-664. The corresponding evidence for pain is documented in Philip L. Jackson, Andrew N. Meltzoff, and Jean Decety. "How do we perceive the pain of others? A window into the neural processes involved in empathy." *Neuroimage* 24.3 (2005): 771-779; and Alessio Avenanti, et al. "Transcranial magnetic stimulation highlights the sensorimotor side of empathy for pain." *Nature neuroscience* 8.7 (2005): 955-960.

[669] Ralph Adolphs, et al. "A role for somatosensory cortices in the visual recognition of emotion as revealed by three-dimensional lesion mapping." *The Journal of Neuroscience* 20.7 (2000): 2683-2690; David Pitcher, et al. "Transcranial magnetic stimulation disrupts the perception and embodiment of facial expressions." *The Journal of Neuroscience* 28.36 (2008): 8929-8933.

[670] Much depends on the content we assign to this 'entering.' The ordinary expectation of such presence in the attention of another is what gives the power to expressions like "he looked right through me" where the rapport is expressly not established (although only on one level, since this withholding is usually a controlled act layered on top of automatic recognition).

[671] Taylor, "To follow a rule," 50-2.

a set of purely coordinated action between individuals qua individuals.[672] The degree of cohesion of such a collective subject at a given moment – their movement synchrony – is an objective quality that may even be measurable.[673] Purely at the level of bodily dynamics (but also metaphorically speaking), a pair in a dance is able to move in a way unavailable to each separately. It is easy to see how the mechanisms described above are involved in carrying on of such rhythm.

Physically coupled performance is the strongest form of a collective subject, since with competency, the body schemas of each dancer incorporate the other, so that the couple is mentally represented by both participants as a unit. One step removed are dyadic, rhythmic, non-physical interactions that still involve a persistent mutual awareness; dialogue is the most common form of these.[674] Conversation has traditionally been viewed as an exchange of information bundles. But modern linguistics reveals the extraordinary processing such a process would demand – tracking of pragmatic indices, ambiguous references, subtexts, and other aspects of speech, let alone inferring the interlocutor's mental states from what is said – of which there is little evidence. Martin Pickering and Simon Garrod argue that in most cases conversation is simpler than such a model would suggest because dialogue is instead a process of "alignment" of meaning between interlocutors, rather than an exchange of messages that must be continuously decoded based on attributed mental states.[675] Their review of the literature suggests alignment occurs concurrently at situational, semantic, syntactic and lexical levels, often through repetition. For example, lexical alignment entails repeating prepositions just heard in one's response, while syntactic alignment involves repetition of grammatical constructions and phrases.[676] Indeed repetition at all levels of conversation – phonemes, morphemes, phrases, figures of speech and tropes, and longer discourse sequences – is crucial for facilitating comprehension. The lack of such repetition in other forms of speech – such as a document being read out loud – leaves a semantically denser stream, and likely accounts for the greater difficulty of their comprehension.[677] Pickering and Garrod further contend that because priming on one level simultaneously primes related units at higher levels (e.g. synchronization on particular words prime concordant idioms and grammatical constructions), alignment at conceptually lower levels, combined with

---

[672] Charles Taylor, "Cross-purposes: the liberal-communitarian debate" in *Philosophical Arguments*. (Cambridge: Harvard University Press, 1995). To clarify, the statements "we are dancing" are not meant as Searlean performative utterances, but merely registers of an extant phenomena.

[673] Kerry L. Marsh, et al. "Contrasting approaches to perceiving and acting with others." *Ecological Psychology* 18.1 (2006): 1-38.

[674] The rhythmic nature of conversation that Taylor highlights is often underappreciated. As Deborah Tannen remarks, "successful conversation can be set to a metronome: movements and utterances are synchronized and carried out on the beat. … Finding a way into a conversation is like joining a line of dancers" (Deborah Tannen. *Talking voices: Repetition, dialogue, and imagery in conversational discourse*. Cambridge: Cambridge University Press, 1992, 33).

[675] Martin J. Pickering and Simon Garrod. "Toward a mechanistic psychology of dialogue." *Behavioral and Brain Sciences* 27.2 (2004): 169-189.

[676] For example, one might reply to 'what time do you close?' vs. '*at* what time do you close?' with 'five o'clock' and '*at* five o'clock' respectively (Ibid., 174). Pickering and Garrod readily admit that dialogue is at times parameterized by unshared factors such individual goals and beliefs and explicit assumptions about the interlocutor's knowledge. But multi-level alignment holds conversations together in the wide gaps between these explicit guideposts.

[677] Tannen, Talking Voices, chs. 2-4.

the participants' shared context, guides alignment at higher levels, up to the most abstract reference frames.

The significance of this analysis of conversation for our purposes is threefold. It once again illustrates a point made earlier about embodied cognition: perception and comprehension are interleaved rather than distinct stages that occur in sequence. The analysis is also suggestive of the way multiple levels of informational complexity cohere within an embodied practice. As per Schatzki, a practice is a complex tapestry of behaviors, phenomenal and nonphenomenal mental states, material environments, etc. (see next section). Pickering and Garrod's notions of cross-level priming and hierarchical alignment offer a schematic example of how these elements can fit together.

Finally and most relevantly for the present discussion, their analysis suggests how even such apparently cognitively complex activity as conversation may proceed without intermediate symbolic representations by relying on more basic cues and interactional processes to coordinate semantic and intentional reference frames: incorporation of the material surroundings, turn-taking, imitation and behavior synchronization.[678] Together, these create a semantic coupling that simplifies the task of intelligibility and coordinates the activity arcs of participants, all outside phenomenal awareness.

According to Taylor, a similar, though more subtle, collective subjectivity obtains in the triadic relationship of two or more people synchronizing attention not on each other but on a common object. The ability to synchronize attention (creating "joint attention") through gaze following is a very basic biological skill that we share with other primates.[679] But although joint attention begins with gaze following and monitoring in the first year of life, in adulthood, it draws on additional cues including body posture, head position and, of course, pointing gestures, allowing synchronization on a great variety of objects (indeed, a conversation is a process where the participants synchronize attention on the repeated content at the various levels of alignment).[680] Furthermore, in the second year of development, gaze following combines with additional mental processing to become *shared* attention, where one begins to also attend to the other person as well as the primary object of attention, simultaneously coloring the way the main object is perceived. As John Campbell observes, within shared attention, "one of the factors sustaining x's attention on z is that y is attending to z, and one of the factors

---

[678] C. Neil Macrae, et al. "A case of hand waving: Action synchrony and person perception." *Cognition* 109.1 (2008): 152-156. Shockley and colleagues record subtle synchronization of postural sway between conversing individuals (Kevin Shockley, Marie-Vee Santana, and Carol A. Fowler. "Mutual interpersonal postural constraints are involved in cooperative conversation." *Journal of Experimental Psychology: Human Perception and Performance* 29.2 (2003): 326).

[679] Daniel J. Povinelli and Todd M. Preuss. "Theory of mind: evolutionary history of a cognitive specialization." *Trends in neurosciences* 18.9 (1995): 418-424.

[680] Here I primarily take joint attention to be joint *visual* attention, as that is the predominant way of attending to an object and synchronizing attention. Blind infants do also develop joint attention through auditory and tactile means, but take longer to do so. (Ann E. Bigelow. "The development of joint attention in blind infants." *Development and Psychopathology* 15.2 (2003): 259-275; Stephen RH Langton and Vicki Bruce. "Reflexive visual orienting in response to the social attention of others." *Visual Cognition* 6.5 (1999): 541-567; Stephen RH Langton, Roger J. Watt, and Vicki Bruce. "Do the eyes have it? Cues to the direction of social attention." *Trends in cognitive sciences* 4.2 (2000): 50-59.

sustaining y's attention on z is that x is attending to z."[681] When something in the world becomes a subject for *us,* the attention on it (its meta-representation in the mind) is complemented by mutual attention (a representation of the other person) changing the overall perception of the world. This awareness of the others is the additional component of collective subjectivity which Taylor is at pains to distinguish from "an aggregation of attendings-separately."[682] Compare the experience of sitting in a silent theater audience to watching a performance at home. Excepting, perhaps, moments of complete absorption (admittedly the goal of the experience), the consciousness of being in a group colors my awareness. I might be more self-conscious – react less boisterously, or more so. There is a reflection effect off of others (tempered by my relationship to them) that modulates my own response. An off-color remark which might draw a snicker at home can bring a cringe in the audience because of others' presence in my consciousness, highlighting the social aspect of world intelligibility. These reflective effects of physical co-presence also play an important but often invisible role in lectures and classes. Thus, to argue that an online chat room of five or ten people is "much more connecting than a professor picking one student out of [an in-person lecture] class while 300 other students are sitting there twiddling their thumbs," as advocates of online learning do, is to miss all the complex subconscious interaction that takes place even when an audience member is not directly conversing with the lecturer.[683]

The simulation of the other person in the process of mutual attention and attendings-together incorporates the other's emotional responses, commitments and evaluations, and, of course, an extrapolation of their immediate intentions. This is why rhythmic activity like dance and conversation is a paradigmatic instance of collective subjectivity: like listening to a familiar melody, in shared attention we continuously anticipate the others' imminent behavior by mentally simulating their immediate intentions and state of mind.[684] We don't simply *follow* another's gaze, we synchronize with it. We predict the next words in a conversation and hand the forceps to the doctor as he puts down the scalpel. Likewise, most competitive sports involve directly apprehending others' behavior before it is actually initiated: returning a tennis serve or ducking a punch in a boxing ring begins before the ball is hit or the punch is thrown. This

---

[681] John Campbell. "Joint attention and common knowledge." In Naomi M. Eilan, Christoph Hoerl, Teresa McCormack & Johannes Roessler Eds. *Joint Attention: Communication and other minds* (Oxford: Clarendon Press, 2005): 287-297, 288.

[682] Taylor, "Cross-purposes," 199.

[683] Anant Agarwal. "More Clicks, Fewer Bricks: The Lecture Hall is Obsolete." Live debate. intelligencesquaredus.org. Intelligence Squared U.S..April 2, 2014.

[684] This of course draws on the mechanisms of intention inference discussed earlier, through which children are able to infer such intentions after about 18 months (Daniel J. Povinelli and Christopher G. Prince. "When self met other." *Self-awareness: Its nature and development* (1998): 37-107). Natalie Sebanz and colleagues discuss a number of behavioral experiments where the timing of subjects' actions indicates a "motor resonance" in paired experiments, typically where two individuals physically manipulate a series of objects (Natalie Sebanz, Harold Bekkering, and Günther Knoblich. "Joint action: bodies and minds moving together." *Trends in cognitive sciences* 10.2 (2006): 70-76). In this vein, J. Randall Flanagan and Roland Johansson's study of coordination between gaze and hand movements in joint task of stacking blocks showed them to be predictive rather than reactive, and thus based on anticipatory simulation rather than purely visual analysis, which would require tracking the hand itself (J. Randall Flanagan, and Roland S. Johansson. "Action plans used in action observation." *Nature* 424.6950 (2003): 769-771). Close tracking of the eyes showed that "subjects activate highly similar eye motor programs when performing and observing the same task" (770).

continuous, implicit, mutual attribution of intentional representations or mutual simulation has the phenomenal character of interpersonal affordances. While as an individual I perceive the environment according to my own capabilities (e.g., a chair affords sitting), in a joint activity, experimental evidence suggests our perception of the situation automatically incorporates the simulated abilities, physical requirements, and goals of other participants.[685] A lone chair may no longer afford sitting during a conversation as this would disrupt it, while taking a seat on a bench would not.

So far, the collective subject has been presented as the product of immediate co-presence: multiple individuals perceptibly present for each other and represented as such. But Taylor argues that while collective subjectivity is more apparent in these instances, it is not limited to them. All that is necessary is that there is a shared understanding of the action as being collective.[686] Collective meanings have a particular purchase on us *because* they are shared. Furthermore, they are not just held by individuals as isolated beliefs (e.g., I expect everyone around me believes as I do that the Earth is round), but are premised on their collective acceptance by the group in question, the *we* of a community that looks onto itself (settings aside for the moment the practical criteria of such acceptance). The web of such shared meanings constitutes the fabric of social reality, from the value of monetary currency to the force of law and authority and all the other trappings of civilization.

Given the abstract nature of the social collectivity implied above, is the sharing of these meanings simply a matter of propositional beliefs? If so, how can they function as the social glue Taylor imagines them to be? Taylor can offer two responses. First, the self-understanding as belonging to a communal *we* is itself an integral feature of the human condition. In other words, it is simply the case that normal adult human beings encounter the world as implicit members of a group. Although in presenting Metzinger's work on consciousness I omitted his explanation of the construction of the Self, one can make a good argument that in that process the background awareness of group membership becomes as much part of our sense of self as the awareness of basic physical motility or capacity for speech.[687] This awareness provides the anchor and the motivational force for the understandings shared by the members even when they are not directly present and even though one never encounters the group as a whole.

Second, Taylor may note that shared understandings are established and reinforced in the course of social practices. Even though individuals can obviously engage in practices on their own, the paradigmatic (and of necessity common) context of practice performance is in the presence of others and, crucially, this is stored as part of the situational context that encodes the meanings of the practice in the mind. All but the most basic meanings are social because they involve continuous calibration and

---

[685] Sebanz et al (2006); R.W. Isenhower, et al. "The specificity of intrapersonal and interpersonal affordance boundaries: intrinsic versus absolute metrics." in H. Heft and K.L. Marsh, Eds. *Studies in Perception and Action VIII: Thirteenth International Conference on Perception and Action*: 54–58; J. Dokic, "Affordances and the Sense of Joint Agency." *Neuropsychology of the sense of agency: from consciousness to action. Springer-Verlag Publishing, New York* (2010): 23-43; Thomas A. Stoffregen, et al. "Perceiving affordances for another person's actions." *Journal of Experimental Psychology: Human Perception and Performance* 25.1 (1999): 120.

[686] Taylor, 'To follow a rule," 172.

[687] Taylor makes approximately this point in part I of *Sources of the Self*, where he paints identity as positions along dimensions of worth rooted in the culture of a community.

synchronization through embodied practices. Practices, as structured social activities, engender and reinforce the collective subject rooted in intersubjective meanings because it is not atomized individuals that acquire skills, mannerisms and expressions, but individuals-as-part-of-the-collective-subject; by stepping into a practice, we automatically enter such relationships and, to some degree, take on a shared subjectivity. To see how a practice organizes and instills embodied meanings, we need to directly consider its ontology. The next section revisits Stephen Turner's argument against practice to structure that discussion**.**

VII. The Ontology of an Embodied Practice (Turner's Challenge)

Having considered a number of facets of an embodied account of meaning, we now return to the analytical construct of embodied practice itself, or "practice-as-entity"[688], and its relevance to social analysis. As before, I will examine this issue through the lens of Stephen Turner's objection to macrosociological constructs.

Turner's concern is with the conceptual relation between a practice and the individuals engaging in it. The first question to address then is a straightforward one:

> *"If the relation is that [a practice] causes or produces or constitutes individual dispositions, how does it do so? … what is the relationship with individuals? Are they merely "affected" by practice?"*

In other words, the first thing to say about the practice construct qua explanans is how it relates to the explanandum – (among other things) individuals' dispositions and actions. In this regard, I take Schatzki's interpretivist conception of practice to be correct: a practice *situates* a person and her understanding of her situation by providing the material for that understanding through functional intelligibility of affordances and significations. Moving beyond Schatzki, the present account also shows how a practice generates a *phenomenal* understanding of experience and illuminates the actual mechanisms through which patterned activity organized by practices engenders intelligibility and expertise (learning of PSS frames, acquiring cognitive metaphors, etc.).

Turner's next question introduces time – and, as a result, change – into the relationship:

> *"Does every change in the big structure appear instantly in each individual? Is the whole evolving, telic, changeable thing present in each individual?"*

Change flows in both direction between individuals and structures, as Giddens elegantly noted. Here Turner specifically focuses on the way a change in the practice translates into changes in the actions and perceptions of individuals.[689] We can distinguish two

---

[688] Inge Røpke. "Theories of practice—New inspiration for ecological economic studies on consumption." *Ecological Economics* 68.10 (2009): 2490-2497.

[689] Recall that the reverse direction of *why and how* individual performances "depart" from a practice was well captured – at a high level – by Sahlin's formulation of subjective & objective risks (changes in external conditions, semantic creativity, failed or mistaken performance, etc.). When these factors obtain,

cases (as ideal types). If, as is more common, the change in enactments trend in a particular direction within a population, the situations and actions within that practice acquire a new set of meanings for all involved simply through exposure and calibration, since they are nothing but a condensate of those experiences. But if those enactments start to diverge from a previous stable pattern in different directions, an individual's understandings of a situation can become more abstract and less influential (i.e., the significations and affordances of a situation become ambiguous and weak). Over time, such a practice will no longer allow absorbed coping, and its meanings will always be secondary to others. If this de-coherence proceeds too rapidly, the constituent elements of the practice can be raised to consciousness, as captured by Bourdieu's notion of hysteresis, such that *absorbed* coping is no longer possible.

The real force of Turner's questions, however, is to emphasize that participants' internalizations of a practice will always vary, since if there is change, it cannot occur simultaneously among all participants, and thus performances of some will deviate before those of others. Indeed, minor fluctuations among the internalizations of the practice by participants are ever present. Turner rightfully noted that the approach of traditional structural sociology, in which an overarching system coherently organized the actions of individuals, required for that system to somehow appear identically in the minds of all individuals, which is impossible. Moreover, research on how people acquire new skills demonstrates that instruction is generally secondary to the engagement itself, and that newcomers adopt their own responses to the conditions at hand, rather than replicating other participants.[690] Thus new skills and habits interact with existing ones (consequently, displacing an existing practice associated with a certain context is more difficult than if facing an entirely new situation).[691] In short, we are faced with infinite particularization among individuals that appears to sabotage any attempt to generalize from one instance to another.

Schatzki attempts to deflect Turner's objection by insisting that a practice includes nothing purely internal, reducing the practice to what is visible, and in the process relaxing the strong requirement of having participants possess something identical to the much weaker one of simple functional equivalence. Mutually understandable actions are thus considered equivalent. In its crude form, this gives a binary test: when people understand each other's interpretation of a concept, they share the same concept, even if their particular enactments vary (recall that this flows from the argument that mind *is* the bodily doings and sayings). Not only are mental states then superfluous to a practice, Schatzki argues the semantic webs of practices have an independent existence *within which* mental states, attitudes, and personal relations transpire. In other words, the "tissues of coexistence" that practices weave cannot be entirely reduced to the properties and understandings of individuals and relations between them, and are in fact logically prior to them.[692] Personhood is an "*effect* of social

---

and resulting deviations of individual performances largely overlap, the overall practice can be said to be changing.

[690] The canonical early work in this literature is Jean Lave and Etienne Wenger. *Situated learning: Legitimate peripheral participation*. Cambridge university press, 1991.

[691] Stella Vosniadou. "The cognitive-situative divide and the problem of conceptual change." *Educational Psychologist* 42.1 (2007): 55-66; Charles Duhigg. *The power of habit: why we do what we do in life and business*. Random House LLC, 2012.

[692] Schatzki, *Social Practices,* 105, 180-184; Schatzki, *Site of the Social,* 134.

practices," Schatzki writes, because the various expressions of person-ness exist only within practices.[693] The meanings that practices beget are not just "in the minds of the participants," but "'out there' in the expanding manifold of behaviors."

But as I argued in the previous chapter, while the meanings of a practice may be *expressed* by the manifolds of behavior in the moment of performance, ontologically, there doesn't seem to be a way to avoid locating them temporally or spatially except in individuals' mental states. At least Schatzki himself offers none. Furthermore, the purely functional equivalence test he proposes for evaluating whether performances are of the same practice to address Turner's objection is also insufficient, even within Schatzki's framework, because the sayings and doings that actually occur within practices do not by themselves fix individuals' understandings (getting at those understandings often requires additional explicit clarification by participants). Although semantic meaning may in theory be entirely cashed out in doings and sayings, this never happens in real life, where participants' assumption that others share their understandings is frequently wrong. Hence, if "practice" is to be a useful analytic construct, it must theoretically incorporate the mental components of practice.

Taylor's notion of intersubjective understandings provides an alternative social ontology to Schatzki's "tissues of coexistence." Schatzki approvingly quotes Taylor as saying meaning is "out there in the practices," but, as I described above, Taylor carves these shared meanings out of *individual* subjectivities: "for those involved in it [the dialogical action], its identity as this kind of action essentially depends on the agency being shared. These actions are constituted as such by a shared understanding among those who make up the common agent."[694] No mystical entities are invoked here, only a set of other-regarding attitudes and mental states, instantiated through interlocking mental simulations of the shared meanings and other participants. But once causal mental entities are brought back into the theory, we once again have to respond to Turner: how can we tell that any given pair of performances are of the same practice, stemming from the same understandings? To answer this we need an alternative ontology of a practice, which would explain how a practice "transcends the individual incidences of its doing." What unites it into an entity rather than being simply the set of all qualified instances?

To answer this, we can start by characterizing practice as a "nexus" of semantic mechanisms (generalizing Schatzki's ontological description of a practice as a "nexus" of sayings and doings[695] - though perhaps a lattice is a more appropriate term than nexus, since there is a fairly stable organization to the elements). These can themselves be further studied. To say that a practice is a "nexus" is to say that it is more than merely the collection of its components, that it is defined by the properties of their relations as well as the properties of the components themselves. The components here are doings and sayings, together with the various aspects of phenomenal intelligibility described in section IV and social orientations outlined in section VI. They are connected by associative and causal relations as described previously, where the individual representational elements triggers particular mental states, dispositions, and actions. The shared representation of a practice among a collectivity (in the Taylorian sense) is what

[693] Schatzki, *Social Practices*, 35. Hence he approves of the way Judith Butler decomposes gender identity, ostensibly a highly private characteristic into a variety of performances, with nothing behind them.
[694] Taylor, "To follow a rule," 172.
[695] Schatzki, *Site of the Social,* 87.

ties the enactments together and makes the pattern more than accidental. However, these mental representations cannot exist without the reinforcement that actual continuous enactments provide, something Giddens and Bourdieu articulated forcefully in their concepts of structuration and "structuring structures," respectively.

The term "nexus" also implies another important property of an embodied practice: it is a field without strict boundaries and commonly occurs as part of larger assemblages or bundles of activity.[696] Locations, physical objects, or goals can be sites of intersection of multiple practices. Thus team sports such as baseball and football are distinct practices, but have significant overlap between each other of concepts, behaviors, equipment, terminology, etc. – leagues, playoffs vs. finals – as well as with other related practices: coaching, cheering, spectator competitions. There are a number of consequences of this connectivity. It shows that most practices are not learned from scratch, again deflating Schatzki's argument about the logical primacy of the semantic field of a practice (actions draw meanings from related practices before the new one is learned). It also means that any particular action may be involved in multiple practices with different comportments to each (fragmented coping). For instance, leading a surgery lab at a university may be described as an intersection of two distinct practices of teaching and medicine. One may be unreflectively navigating the practice of surgery while consciously evaluating one's success in engaging the students and even what it means to engage them, adopting a reflective stance toward the teaching practice. Finally, the interconnectedness of practices helps to understand how practices change. On the one hand, it suggests that a disruption within the semantic field of one practice can induce changes within connected practices. On the other, these intersections can impede change. Tom Hargreaves recounts how a campaign to reduce recycling waste at a business office reached an impasse when its organizers attempted to relocate trash baskets to encourage more environmentally conscious waste disposal behavior.[697] The move revealed the baskets to be an intersection point of labor union arrangements and information security practices, in addition to the more obvious hygiene and cleanliness practices.[698]

Embodied practices are simultaneously "out there" and "mental." From an observer's point of view, a practice is "out there" in that it serves as a transparent premise of a group's enacted understanding of a given activity. But it is also "mental" because those shared understandings persist as mental simulations and representations in the contextual activation of learned behavioral patterns; in the mutual simulations of participants and low level processes such as subconscious mimicking and complementary behavior that modulates in-person interaction; in the recognition of and harmonization with another's teleoaffective states (to use Schatzki's terminology); and so on. Neither aspect is logically privileged over the other.

Given this conception of a practice, how are intersubjective meanings possible and how do I know that my understanding of 'conversation' is same as yours? A number of responses can be made. The simplest is to dispense with the claim of general similarity of the construct in question in lieu of similarity for a particular purpose.

---

[696] Schatzki, *The Timespace of Human Activity*; Schatzki, "Where the action is."

[697] Tom Hargreaves. "Practice-ing behaviour change: Applying social practice theory to pro-environmental behaviour change." *Journal of Consumer Culture*11.1 (2011): 79-99, .90-1.

[698] Here "practice" refers to thinner notion of discursive practices that nonetheless have a cohesive semantic structure.

Turner's own explanation of practices as functionally compatible individual habits is an instance of this response: no claim is made about intrinsic properties.

Another response is to reduce the unit of analysis. The reductionist observes that the more complex the construct, the more likely it is to vary between individuals. Take language, for example. Any two English speakers will have a somewhat different lexicon, idiom preferences, etc. But as we move down the level of analysis to individual words, competent speakers will give similar definitions of common words. Further down, native speakers within a given geographic area will have very similar pronunciation of letters. Likewise, even if no one shares the same overall practice, they may still share the same semantic components (e.g., the metaphorical mappings like TIME is SPACE). On its own, however, reductionism is not enough because even the mental constituents of a practice can vary widely, as can the relations between them, since they are themselves susceptible to Turner's learning history argument due to the importance of historical situation on meanings (c.f. section III).

Another response is to identity a "core" of a given construct which is held constant across participants and performances, while the remaining periphery varies.[699] For example, only those political regimes that include "free and fair" elections may be recognized as "democracies," whatever else they include. This may work in the context of an inquiry about the history of a particular concept, where the core-periphery boundary can be stipulated at the outset for analytical purposes. But practice-based social analysis cannot proceed this way, since it is either investigating the practice in the first place or is trying to identify the performances of the particular practice; in both cases, the substance of the "core" is itself part of the explanandum.

Finally, an embodied account of practice can appeal to a shared biology which provides something of an identical starting point for all participants. Growing evidence demonstrates a number of human universals such as an inherent predisposition for organizing objects into "basic level" categories, folk physics (infants appear to expect physical force causality, object permanence, etc.), folk biology (infants tend to distinguish animate and inanimate objects very early on), folk psychology (automatically attributing intentionality to others), and folk mathematics (elementary numerosity).[700] Even Schatzki acknowledges a common repertoire of natural, *pre-linguistic* "bodily reactions" which practices extend, such as "crying when struck" and the "expressive playing" of music.[701] Thus, at least in the first several years, "life histories" may not be as divergent as one might think.

Taking the body into account also allows one to see that the psychological processes discussed above in the context of social interaction establish a reliable back channel of direct (i.e., non-conceptual and non-phenomenal) communication over which

---

[699] Jouni-Matti Kuukkanen proposes this conceptual distinction as a heuristic for tracing the evolution of ideas through history even as they change dramatically over time (Jouni-Matti Kuukkanen. "Making sense of conceptual change." *History and Theory*47.3 (2008): 351-372).

[700] Slingerland, "What science offers the humanities," 117-137.

[701] Schatzki, *Social Practices,* 52, 63, 71-2. However, it is important to note that even basic phenotypic traits such as color vision vary even among the "normal" population, which, according to the embodiment thesis, leads to difference in phenomenal categories of color of individuals (and phenomenology more generally), so that their semantic structures will necessarily be somewhat idiosyncratic (Vivianne C. Smith, Joel Pokorny, and Stuart J. Starr. "Variability of color mixture data—I. Interobserver variability in the unit coordinates." *Vision research*16.10 (1976): 1087-1094.)

meanings can be transmitted without being shaped by the receiver's particular past. Omar Lizardo has argued that mirror neurons can be just such a conduit for bodily skills to be transmitted directly between individuals without being filtered by prior learning history.[702] As described earlier, one role of these neurons is to implement automatic mimicking by parsing the visual input of perceived behavior directly into motor sequences in the available repertoire of the observer (in fact the imitation impulse must be actively inhibited to maintain conscious control over behavior).[703] Imitation may therefore allow learning without the burden of didactic instruction, which initially has implausibly high demands of informational complexity. This type of learning also reduces the importance of individuals' particular histories, as it allows transmission of simple semantic building blocks which are then built up into more complex semantic webs.[704] If meaning is fully embodied, even complex practices may be conveyed through direct mimesis of the 'body hexis'. If, to take Bourdieu's example, the sexual division of labor consists of sensorimotor elements like stooped posture, and 'picking up what the man throws down', it may be fully transmitted through these subconscious, subsymbolic channels. Turner may respond that even though mimicry is nonconceptual, mimicking recruits existing skills, so for my mirror system to engage, I must already have an embodied familiarity with the motions (or *e*motions, or intentions) I observe; for my mirror system to activate on seeing a pirouette, I have to be able to do something like it. But this need not be an obstacle to transmission through imitation. At least in an explicitly educational setting, it can be handled with a variety of techniques that slowly ramp up a student's imitation including

> "slowing down the model movement; parsing the target technique into component gestures; shifting between facing-toward and facing-away models; offering verbal formulae to aid sequence recall; physically manipulating the students' bodies; artificially limiting a student's degrees of freedom; abstracting parts of a technique; creating meaningless movement drills to teach basic component gestures; [and] making an interacting player's actions fixed in drills."[705]

Thus augmented, imitation is a plausible instrument of socialization and transmission of culture that need not be mediated by language or propositional knowledge.

Still, this is not in itself a sufficient response to Turner because even if the individual semantic "components" can be thus conveyed, it is not clear how their

---

[702] Omar Lizardo. ""Mirror neurons," collective objects and the problem of transmission: Reconsidering Stephen Turner's critique of practice theory." *Journal for the theory of social behaviour* 37.3 (2007): 319-350. Mirror neurons have been shown to fire both when we carry out a particular action, such as grasping with a hand, and when we see another person do it. Thus it would seem to be a physiological mechanism for acquiring physical behaviors without cognitive involvement.

[703] Ciacomo Rizzolatti. "The Mirror Neuron System and Imitation." *Perspectives on Imitation: From Neuroscience to Social Science-Volume 1: Mechanisms of Imitation and Imitation in Animals* (2005): 55, 71.

[704] Rizzolatti and Craighero 2004:182.

[705] Greg Downey. "'Practice without theory': a neuroanthropological perspective on embodied learning." *Journal of the Royal Anthropological Institute* 16.s1 (2010): S22-S40, S28. Also see Omar Lizardo. "Is a "special psychology" of practice possible? From values and attitudes to embodied dispositions." *Theory & psychology* 19.6 (2009): 713-727.

configuration within a practice is relayed.[706] Nor can this plausibly explain practices with substantial abstract or propositional components that are linked to embodied meanings much less directly. While none of these responses resolve Turner's objection individually, they make for a compelling answer when considered in concert. Before proceeding, three important caveats are in order. First, we must temper implausible expectations such as seeking "identity" of mental entities across individuals. Because understanding incorporates content that cannot be introspectively captured within cognitive attention but exists only as phenomenal *echoes*, discrete relations such as identity are inapplicable. The goal must be something like "deep similarity" that preserves analytic inferences. Second, only contemporaneous performances occurring within the same population can be reasonably compared. In other words, embodied practice theory does not support comparative historical inquiry. It is simply a mistake to treat performances in chronologically or spatially distant locations as instances of the same interpretive practice (although one can compare individual semantic and embodied elements). Third, the range of what can be usefully considered a performance of a practice is extensive. An action can be only partially an enactment of a particular practice, as when its behaviors are performed without normally attendant meaning, goals, or other mental content, such as marriages of convenience for tax purposes or immigration status (although if this became the norm the practice itself would be altered). Similarly, while with professions or natural languages, most participants are expected to become fully proficient, in many practices most participants remain novices, whose performances are frequently only distant approximations of what is appropriate.

Having stipulated those caveats, engaging in a given practice within a particular population entails activating certain mental representations, and two episodes are of the "same" practice when they involve a core of "deeply similar" phenomenal meaning. That is to say, not only is engagement in the same practice signaled by agreement of most categorical judgments (Schatzki's functional criteria of equivalence), in such cases participants will also experience "similar" mental states organized in "similar" ways. This statement may seem to simply shift the problematic notion of "similarity" one level down, without making any theoretical headway. But there is a way to interpret similarity with respect to individual semantic elements that is not available with respect to the practice as a whole. It begins with the notion of basic biological similarity set out above. Take, for instance the basic notion of balance that informs a wide range of human activity. All healthy human beings have extensive familiarity with balancing and being out of balance, both with respect to their bodies and other objects and properties. Similarity regarding the semantic notion of balance between individuals means that (a) the same sensorimotor elements will be activated (e.g., loss of balance will trigger the same reflexive movement to regain balance, a mental representation of falling, a representation of one side being heavier than another, etc.) and (b) they will be connected in the same ways (e.g., there will be an impetus to bring deviating values into alignment). This relation of similarity obtains because the mental representations it refers to track a single physical reality within similarly organized physical brains. However we cannot assert a relation stronger than similarity because there is some variance in how even relatively basic concepts like balance are structured, such as whether the sensation of balancing the

[706] Stephen P. Turner. "Mirror neurons and practices: A response to Lizardo."*Journal for the Theory of Social Behaviour* 37.3 (2007): 351-371.

body or balancing temperature achieves greater activation in the simulator for the concept. Moreover, we cannot (at least at this time) extend the similarity relation to phenomenal meanings, because we do not yet understand how the phenomenal level of description (qualia) emerges from the mental. We do not yet know if there is a uniform pattern to the way phenomenal echoes of meaning and intelligibility arise from mental representations.

All that pertains to similarity between individual semantic elements. What warrants its extension to the larger construct of practice contra Turner? The argument starts with a version of Jouni-Matti Kuukkanen's thesis: within the nexus of doings, sayings, and thinkings that constitutes a practice, some elements will be more tightly integrated and more widely shared than others. Thus the actions of speaking out and of group appraisal of proposal are closer to the core of the Occupy General Assembly practice than the particular hand gestures, because they are more integrated with other aspects of the practice: changing or even eliminating particular gestures need not disrupt the practice.[707] Competence in a practice results when one acquires (the majority of) this core. But the core-periphery partition should be understood as a continuum rather than a strict division. Over time, essential elements of a practice can become secondary and vice versa, and not every competent practitioner will possess every "core" aspect of a practice.

Imposing the core-periphery division on embodied practice is not controversial – natural language manifests the same partitioning, as does Schatzki's version of practice. But what justifies the further claims that there is a single such core among the population (one that will be common to different subsets of the population)? This would seem to be particularly problematic given that a concept can include a set of widely different sensorimotor elements (such as being bitten by a dog vs. watching a dog show). And what justifies the claim that this core is more than merely an arbitrary set of elements that happen to be more tightly connected than others (i.e., this density is not simply an inevitable topological variation)? Or, finally, that this core extends to deep understandings?

Now, by hypothesis, an interpretive practice must be an activity that is repeated in a substantially similar environment often enough to generate stable meaning for those who carry it out (Turner need not object that such a frame exists for each individual). The consistency of the frame *between* individuals stems from the interaction of the considerations cited above: a shared biological base of reactions and abilities, a shared environment, and nonconceptual transmission mechanisms. As Bourdieu argued, individuals that share an environment will be exposed to much of the same implicit sensorimotor stimuli, engendering similar understandings even in the face of wide differences in other aspects of one's milieu. Thus, my concept DOG may be subjectively dominated by fear, while another's may be schematic and largely visual. But, for example, Americans of a certain generation probably share much of the DOG concept, from the common exemplars of Collies, poodles, Dobermans, and pit bulls – because those breeds are common and are heavily represented in the media to which that generation was exposed (i.e., Lassie, Toto) – to expectations about training (bringing

[707] "Direct Democracy part 2."

slippers on command) and function (as companions or guard).[708] Which aspect of the concept proves most salient in turn results from the biologically shared attitudes towards dogs: desire for companionship, attribution of emotions to the animal, etc. Two additional factors mitigate the development of individual differences: the subphenomenal channels of communications and the fact that concepts are interwoven with other, often more basic sensorimotor content; in the case of DOG, my notion of biting, with which it is bound up, very likely closely resembles others' notions of biting.

I contend this argument applies to a wide range of semantic elements and the practices built out of them. The Occupy experience once again provides an illustration. Participants in the New York General Assembly had a diversity of backgrounds. But while they were preoccupied with a wide-ranging set of issues and maintained distinct styles of interaction (e.g., more or less engaged, more or less respectful), they largely shared the same experiences of growing up in a Western capitalist country, yielding a familiarity with classroom participation, group communication norms, town hall meetings and similar settings, and the types of interaction and physical behavior expected there. Perhaps more importantly, they shared the experience of acting within the GA once they got there and the motivational structures these experiences engendered. Again, not everyone embraced the practice of the Assembly to the same degree, or shared the same balance of values. As was evident in the discussion of Figure 3, competent practitioners can have different views as to what a practice dictates in a given situation: best methods of dealing with disruptive individuals, the importance of the value of inclusiveness to the practice, whether expelling a disruptive individual substantially conflicts it. But it is surely more accurate to attribute a common core of understandings to the group than to describe the similarity of behavior as a merely superficial functional harmonization of individual habits.

Still, Turner could come back and press the question of theoretical certainty: similarity of conditions and homogenizing influences may lend an air of plausibility to claims of analytic similarity, but what allows one to say two performances are of the *same* practice? Is there any *theoretical* way to directly compare performances and individuals' internalization of a practice? The ontology of an embodied practice as a nexus – or lattice – of embodied meanings suggests a number of possible venues: the traditional anthropological observation of conditions of life and self-reported explanations of actions can be complemented by direct psychological experiments, such as Lera Boroditsky's study of the relationship between the understandings of time and space, where the mental conceptions at work are revealed experimentally or even through neural imaging. In principle, the mental component of a practice can be reconstructed in this way. Not by effortlessly equating them with behavior, but through painstaking investigation. The key step is the coupling of social analysis to empirical psychology, so that it can harness the knowledge yielded by that discipline.

Several additional consequences follow from the conception of a practice as possessing a core and a periphery. First, creativity and change will occur primarily at the periphery of the practice, where the differences between individuals' conceptions are greater and where schema associations more strongly link to other practices. Second the

[708] Of course, certain subgroups in the population (dog owners, dog breeders, dog trainers) will have richer versions of the concept, potentially with a quite different core than the larger population. However, the participants of *that* practice should have their own coherent and stable core of the concept.

magnitude of the core – and thus its tractability for social analysis – depends on a variety of factors such as the depth and maturity of the practice. Thus, the practice of medicine in the US is quite cohesive and will have a large and relatively consistent core. Perhaps most importantly, this ontology of a practice means that the concept will yield analytical value only if the core meanings are first mapped out. Unlike more abstract frameworks such as rational choice, practice theory cannot be applied to a situation simply by ensuring a few basic assumptions are met. It demands prior investigation of a situation to determine the influence of a particular web of practices and variability of key aspects within them. But what it provides in return is a theoretical understanding of how cultural and structural meanings translate to the individual's point of view.

VIII. Embodied Practice Theory and Diachronic Analysis

I originally motivated this project by highlighting two dilemmas faced by social theory. While most of the discussion so far has concerned the agency/structure dichotomy, I believe the account of embodied practice theory (EPT) presented here also has important implications for resolving the conceptual tensions between explanations that emphasize stability and those that emphasize change, especially endogenous change. As noted in the first chapter, taking the inherently diachronic concept of enacted "practice" as the analytic unit of social activity, instead of synchronic constructs such as "structure," "culture," or even "institution," transforms the intractable categorical division between change and stasis into one of change and *continuity* – two possible outcomes of the same process of *reproduction*. Other theories of practice, NPT in particular, attributed change (or divergent reproduction in this terminology) to "subjective" and "objective" pressure during reproduction. Practices change through the compounding of minor individual improvisations and unintended consequences of actions. As Wanda Orlikowski put it in her study of a technology corporation, minute variations "that are repeated, shared, amplified, and sustained can, over time, produce perceptible and striking organizational changes."[709] Theories of practice also identify causes of stability within the social order. One such factor is the interlocking of multiple practices and the complementarity of behaviors, attitudes, mental states and other elements of practices. To the extent that practical knowledge is "scaffolded" onto the physical components of a practice, those elements become further means of stability. Indeed, individual- and organization-level explanations of continuity, such as those referencing "inertia," "institutional memory," or path dependency, are predicated upon relations between material infrastructure and the routines and semantic frameworks in which they are embedded.[710] The "punctuated equilibrium" trope is then used to explain when each tendency is dominant – whether or not reproduction is likely to be accurate. During "ordinary" times, improvisation by social actors and unintended consequences will rarely shift the inertia of the system. But during certain turbulent periods (variously called "critical times" or "unsettled times," and often resulting from exogenous shock) these can add up to rapid transformation.

---

[709] Wanda J. Orlikowski, "Improvising organizational transformation over time: A situated change perspective." *Information systems research* 7.1 (1996): 63-92.

[710] Arie Rip and René Kemp. *Technological change*. Battelle Press, 1998, 354, discussed in Elizabeth Shove, Mika Pantzar, and Matt Watson. *The dynamics of social practice: everyday life and how it changes* (Los Angeles: Sage, 2012).

In the introductory chapter, I also mentioned a more recent approach to explaining change in social processes exemplified by Shove and colleagues' decomposition of practices into webs of material objects, meanings, and habits and skills of individuals. A change in a practice is then a matter of coevolution of these factors: changes in individual elements of a practice (e.g., an evolution of a technology involved or a substitution of a new one); changes in the interaction of these elements (the co-evolution of skills and tools); or changes of interaction between related practices.[711] In one such example narrated by Shove, the Japanese government brought together a broad coalition in its campaign to reduce the energy used by climate control systems in commercial buildings. Recognizing that the extensive use of air conditioning during summers was in part driven by the wearing of heavy suites demanded by the formal dress code of industry, the government invited stakeholders from fashion industry and business to simultaneously target a variety of mutually reinforcing elements of the climate control practice: materials (thermostats, clothes), competences (norms of dress), and meanings and significances (the obligatory formal dress of traditional suite and tie).[712] Beyond simply identifying the elements, this perspective on practice also diagrams their inter-relations – the "meta-structure" of the practice. That is, not only does change within individual elements of a practice have a predictable effect on other elements, but the friction or coherence between them itself has implications for overall stability. Shove and colleagues consider two typical meta-structures: the ratchet (where each change tends to promote further changes in that direction, rather than a return to status quo ante) and the pin-wheel (where multiple elements combine to reinforce the status quo). Another common arrangement may be described as house of cards (dynamic equilibrium, where a single change can trigger a cascade of transformations).

Additionally, since practices are enacted by and spread among *individuals*, pre-existing social networks and interaction patterns among the population in question also becomes an important factor in understanding how practices form and evolve – their "careers."[713] The creation and spread of a new practice often takes advantage of networks built for other interests or pursuits. This means that a practice may fail to take root simply because the pool of candidate practitioners is dispersed or limited in other ways. As Shove and colleagues note, extreme sports, for example, must ensure constant accessibility of recruits, to replace the constant flow of "defectors" as bodies "lose strength and agility."[714]

The finer granularity of EPT permits us to extend these insights of earlier theories regarding patterns of endogenous change in a number of ways. One can begin to answer questions such as "When are routines more likely to be stable or more likely to change? What conditions tend to promote endogenous change? What can we understand about the direction of endogenous change?"[715] For instance, it becomes clear that the "career" of a practice is also a function of the mechanisms by which it is transmitted. Indeed, identification of a network of practitioners and possible recruits presupposes knowledge

[711] Shove et al, *The dynamics of social practice,* 146.
[712] Ibid, chapter 8.
[713] Ibid, chapter 4.
[714] Ibid, 78.
[715] Martha S. Feldman and Brian T. Pentland. "Reconceptualizing organizational routines as a source of flexibility and change." *Administrative Science Quarterly* 48.1 (2003): 94-118, 115.

of how a given practice is transmitted. Similarly, how potential improvisations contribute to the evolution of a given practice depends on whether they tend to be incorporated into the practice or discarded. EPT opens the door to a more precise evaluation of whether the meta-structure of a practice is favorable or hostile to intentional change and of the types of systematic distortions likely to be introduced during performance and transmission of practices. The following paragraphs briefly sketch out these avenues.

To begin, it is useful to distinguish *intentional/purposive* from *organic/emergent*[716] processes of change (though intentional changes will inevitably have contingent and unintended consequences as well). With respect to intentional change, that is, concerted efforts to introduce or change a practice, EPT is most useful in identifying aspects of the meta-structure that are likely to facilitate or inhibit change, as well as ascertaining the likely boundaries of such change. It can also aid in identifying weak points in the meta-structure of practices particularly vulnerable to shocks and points of strength that are not. At a high level, the method is simple: pinpoint the main components of the practice and evaluate whether there is friction between them or whether they generally reinforce each other.[717] In the next chapter I will consider how such internal contradictions contributed to instability in the Occupy movement. Here I will briefly illustrate the opposite scenario, where mutually reinforcing elements hinder attempts at intentional change (this is the "pinwheel" structure noted above).

Martha Feldman chronicles one organization's unsuccessful attempt to promote cooperative behaviors among its employees and departments over the course of several years.[718] Feldman argues the executive directive for inter-departmental cooperation ran counter to a variety of behaviors and norms that reinforced a competitive and hierarchical view of the organization. Her primary example is the budget process, where managers engaged in adversarial bargaining over their funding. Such episodes inclined employees to broadly construe the company as a competitive environment and appeals for cooperation as inapplicable. Feldman argues that to prevent such misalignment, change in such systems must be pursued both at the level of performance as well as "broader understandings about how the organization operates."[719] Attempts to simply introduce new performances at odds with current understandings are unlikely to succeed.

EPT offers a framework in which to further investigate these implicit understandings and their impact on specific behaviors. One would probe key exemplars and embodied metaphors involved in a problematic behavior. The budget process is one such exemplar in the organization Feldman studied that implicitly prescribed appropriate office dynamics. But the targeted understandings are invariably affected by a variety of

---

[716] Adrian Smith, Andy Stirling, and Frans Berkhout. "The governance of sustainable socio-technical transitions." *Research policy* 34.10 (2005), 1491-1510.

[717] Of course, stated thusly the insight is not new (See John Dewey. *Human nature and conduct: An introduction to social psychology*. Carlton house, 1922; Robert C. Lieberman. "Ideas, institutions, and political order: Explaining political change." *American political science review* 96.04 (2002): 697-712; Clemens, Elisabeth S., and James M. Cook. "Politics and institutionalism: Explaining durability and change." *Annual review of sociology* (1999): 441-466) but EPT expands the application of this idea to new domains. Note that although friction can itself be a catalyst of change, I discuss it here mainly as a predisposing factor.

[718] Feldman, Martha S. "A performative perspective on stability and change in organizational routines." *Industrial and corporate change* 12.4 (2003): 727-752.

[719] Ibid, 749.

elements and other practices, from parking spot allocation to weekly meeting dynamics. Not only does EPT explain and elaborate the importance of individuals' "sense-making" for attempts at intentional change highlighted by Feldman[720], it opens the door to applied methods exploiting these underlying connections (a few are introduced in the next chapter) that can be used for investigation and design of minimally invasive interventions to bring about such change.

Even more interesting are the avenues that EPT opens for analyzing gradual autogenic change within practices that take place outside of episodes of rapid, dramatic transformation. This results from systematic deviation at two moments of a practice: performance and transmission to new members. While neostructuralist writers recognized the inherent mutability of a practice in its enactment, they did not consider the types of systemic pressures potentially operating there, nor did they consider systematic change during transmission.

One such pressure tends towards simplifying and streamlining performance. For instance, take the evolution of computer programming since its origin in the 1950s. Over time, the development of ever larger and more complex programs put a great premium on clarity and organization over the efficiency and brevity which characterized early programming. Few specific changes are more emblematic points of this gradual shift than the fate of the "goto" operation which allows the programmer to specify arbitrary control flows in a program. While viewed as a necessary operation in the early days of computer programming in late 1950s and early 1960s, programmers over time retreated from its use as they found that it promotes convoluted, unmaintainable "spaghetti" code. By the late 1960s this shift in the community opinion was clear.[721] But, importantly, the change in explicit doctrine *followed* the implicit move away from this pattern by practitioners on the ground, who were saddled with the maintenance of the problematic code.

Due to the voluminous quantitative evidence it provides, natural language aptly illustrates such pressures at the syntax, vocabulary, and phonology levels. In terms of grammar, there is strong evidence that speakers will favor constructions that are more easily parsed over those more difficult to parse (those that tend to lead to errors of hearing or comprehension).[722] Similarly, phonological changes can result from the pressure to minimize misunderstandings, as well as for mechanical reasons. In his seminal work on linguistics, William Labov identifies a variety of such adaptations and shortcuts, such as the changes in pronunciation of vowels over time to relieve

---

[720] An interesting case demonstrating the importance of this step is the introduction of the activity of Nordic walking described by Elizabeth Shove and Mike Pantzar, which involved the redescription of walking with sticks as a healthful activity rather than suggesting old age in the public mind (Shove, Elizabeth, and Mika Pantzar. "Consumers, Producers and Practices Understanding the invention and reinvention of Nordic walking." *Journal of consumer culture* 5.1 (2005): 43-64). The organizational studies literature is replete with such cases (For a discussion, see Anne Jerneck and Lennart Olsson. "Breaking out of sustainability impasses: how to apply frame analysis, reframing and transition theory to global health challenges. *Environmental Innovation and Societal Transitions* 1.2 (2011): 255-271).

[721] As one of the progenitors of the field, Edsger Dijkstra's summary of the reasons against the use of the "goto" are representative**:** Edsger Dijkstra, "Letters to the editor: go to statement considered harmful." *Communications of the ACM* 11.3 (1968): 147-148; see also B. M. Leavenworth, "Programming with (out) the GOTO." *Proceedings of the ACM annual conference-Volume 2*. ACM, 1972.

[722] Anthony S. Kroch, "Reflexes of grammar in patterns of language change." *Language variation and change* 1.03 (1989): 199-244.

"overcrowding" of similarly sounding vowels.[723] These shifts can be interpreted as responding to selection pressure on the individual elements of the practice (of language). At the vocabulary level, contractions are an obvious example of streamlining, but another such adaptation is the production of "survival words", employed in conversation to avoid disrupting the flow of conversation when the speaker cannot immediately bring the desired word to mind. Some neologisms and even grammatical creations (e.g., novel "–ly" and "–ish" constructions) originate in this way, and may subsequently be retained.[724]

Countervailing the trend toward streamlining, practices also exhibit an expansionary tendency toward increasing complexity, most evident in new practices. As skills and material resources of a practice develop, new forms of the activity become possible. Indeed, complex practices generally have a cyclical dynamic where improved skills make possible new tools which in turn lead to further refinement of skills, as amply documented in the literature.[725] The emphasis on embodied intelligibility, however, adds a new perspective on this co-evolution that highlights the way the application of new skills and technologies come to shift the semantic landscape of a practice. Although true of most human endeavors, this is especially evident in sports. In rock climbing, for example, the introduction of significantly more effective climbing shoes, protection gear, and novel techniques transformed the affordances of many types of rock formations.[726] Cliffs that were previously dangerous, even deadly, entered realms of expected competence. Simultaneously, the new techniques required an increasing amount of training, leading to a professionalization of the activity, such that it came to be perceived as a viable full-time pursuit. The introduction of indoor climbing gyms also tamed the rebellious image of the sport and made it approachable to the average person.

The second potential source of gradual transformation of a practice is systematic distortion during its acquisition by new entrants. In the previous section I argued that, contra Turner, various mechanisms limit individual variability and tend to preserve a certain "core" of a practice among individuals. But, of course, even this "core" is subject to gradual change among the population as a whole. In the presence of a systematic transmission bias that makes certain elements more easily transmitted than others or inhibits the accurate acquisition of an element, these distortions may dramatically alter a practice over time. Based on the preliminary analysis of embodied semantics above, we can already make some high level observations about these tendencies. Other things being equal, activities which have more prominent motor components, in which the enactment itself (rather than its results) is the primary focus, and those that are usually carried out in large groups should suffer less distortion during acquisition – both in their physical *and the semantic* components.[727] On the other hand, a practice becomes less uniform when there are fewer opportunities for face to face interaction with competent practitioners. Once again, such distortion often takes the form of selection pressure. In a

---

[723] William Labov. *Principles of Linguistic Change, Cognitive and Cultural Factors*. Vol. 3. (John Wiley & Sons, 2011), 118.

[724] Ronald Carter. *Language and creativity: The art of common talk* (Routledge, 2004), 98.

[725] For a survey of this literature see Røpke, "Theories of practice."

[726] Laura Waterman and Guy Waterman. *Yankee rock & ice: A history of climbing in the northeastern United States*. Stackpole Books, 2001.

[727] Obvious examples are martial arts (Downey, "Practice without theory") and performance/competitive dance (Beate Littig. "On high heels: A praxiography of doing Argentine tango." *European Journal of Women's Studies* (2013)).

differentiated population of interchangeable practice elements, transmission will be biased towards variants of higher instrumental value – e.g., those conferring greater social esteem or income – and those more easily acquired.[728]

In sum, embodied practice theory can make important contributions to diachronic analysis of social activities. By interrogating the mechanisms of practice enactment and transmission it is able to differentially account for both stability and endogenous change and can aid in assessing the likely outcomes of hypothetical events and interventions. Of course the description of these mechanisms is necessarily speculative at this point. And even as the understanding of complex perception and relevant aspects of psychology improves, such analysis will always be partial if only due to the ever-present possibility of external influences. Nevertheless, this approach can be profitably harnessed for programmatic intervention. In particular, EPT expands the toolkit of intentional change programs beyond incentive-based approaches.[729] By identifying concrete links between tangible elements of practices and the aspects of intelligibility they engender, EPT lays the foundation for a jiu-jitsu of social policy that redirects the inertia of the larger system to desired ends by harnessing positive feedback effects of limited interventions targeted at the weakest points of a practice.

IX. Conclusion: Implications for Political Theory

This chapter fleshes out the notion of situated agency through a naturalistic account of the experience of intelligibility. It takes Charles Taylor's contention that the character of our experience arises from our physical body operating in the physical world as its point of departure. It then and employs contemporary cognitive science research to trace the steps by which semantic structures are taken up in the informational and neurophysiological processes of the mind to constitute the experiences of meaning, intentionality, innovation, and introspective evaluation and social awareness. By rendering these in the naturalist vocabulary of attention, working memory, mental simulation, and various forms of perception, the account situates them within recognizable semantic structures.

An explanation of how structural influences translate into the subjective experience of agency, if successful, would be a substantial accomplishment for social theory. But the relevance of the ideas developed here extends beyond that question to any issue that deals with conceptions of the person, agency, and action, and their relation to society and the state. I conclude this chapter by highlighting two such issues.[730]

---

[728] Peter J. Richerson and Robert Boyd. *Not by genes alone: How culture transformed human evolution*. University of Chicago Press, 2008, 79.

[729] For example, the "transition management" literature in public policy is occupied with effective means of modifying undesirable behavior in a variety of domains, from environment and energy, to climate change and medicine (Derk Loorbach and Jan Rotmans. "The practice of transition management: Examples and lessons from four distinct cases." *Futures* 42.3 (2010): 237-246; Jan Rotmans, René Kemp, and Marjolein Van Asselt. "More evolution than revolution: transition management in public policy." *foresight* 3.1 (2001): 15-31). One consequence of practice theory for such work is to encourage redirecting spending on the study of approaches targeting individual consumers (such as surveys of attitudes regarding the environment, energy usage, etc.) with study of the *practices* involved (Shove et al, *The dynamics of social practice,* 146).

[730] Another, related debate concerns the nature of citizenship, erupting in the wake of the fall of the USSR and the subsequent explosion of nationalist movements (for a survey see Will Kymlicka and Wayne

A. Applications for Political Theory – Culture and Multiculturalism

Political "recognition" of national minorities and the extent of protection due to their cultures by the larger society is one theoretical question advanced by the theory developed in this chapter. This was the subject of vigorous debate in Anglo political theory of the 1990s. Critics of universalist liberalism challenged what they perceived as a myopic commitment to nominal protection of individual liberty, which they argued defined autonomy and human dignity too narrowly and thus failed to recognize fundamental goods of human life such as cultural membership.

A theory of embodied semantics can make a valuable contribution to this issue, as I will illustrate with the specific example of Will Kymlicka's articulation of multiculturalism, which set the terms for subsequent discussion and at times came to define the whole debate.[731] Kymlicka explicitly grounded his defense of cultural rights in the necessity of culture for the core liberal values of autonomy, dignity and the opportunity to lead a "good life." He argued that one's cultural identity is the indispensable context for the expression of those values, linking a person to the world in physical space and history: "Freedom involves making choices amongst various options, and our societal culture not only provides these options, but also makes them meaningful to us."[732] The gloss of freedom as choice among options is taken from *A Theory of Justice*, where Rawls acknowledges that we make life choices by reference to "definite ideals and forms of life what have been developed and tested by innumerable individuals, sometimes for generations."[733] Here Rawls appears to view culture and tradition as simply a catalog of concrete strategies that have been pursued by others – 'I will be a baker; I will start by going to culinary school; etc.' – and this is the first function Kymlicka attributes to culture. But he immediately distinguishes this from the second function of assigning value, meaning and significance to these options by locating them within the vocabulary and narratives of one's community. Thus, beyond merely having the function of selling baked goods, a baker is a position within a community and larger society (a provider of sustenance, small business owner, bourgeois) and a stable career. To meaningfully "choose" that life one needs a culture through which to understand it.

Norman. "Return of the citizen: A survey of recent work on citizenship theory." *Ethics* (1994): 352-381). The question turned on the strength and character of ties necessary for the survival of a nation. Universalist liberals, most notably Jurgen Habermas, argued that no pre-political community is necessary for a stable political society. He proposed that a form of 'constitutional patriotism' can bind the members of a community together without the unsavory aspects of nationalism (particularly of the ethnic form). Others argued that effective patriotism must be rooted in a pre-political community and cannot be inspired simply by intellectual ideals (Margaret Canovan. "Patriotism is not enough." *British journal of political science* 30.03 (2000): 413-432). Charles Taylor, for instance, insisted that patriotism is a product of common history, a past of "participation in a common political entity", and is necessarily a "love of the particular." It therefore cannot be inspired by abstract, intellectualist, universalist forms of community advocated by Habermas (Charles Taylor. "Cross-purposes: the liberal–communitarian debate." *Debates in contemporary political philosophy* (1989): 195, 199).

[731] Kymlicka, Will. *Multicultural citizenship: A liberal theory of minority rights* (Oxford: Clarendon Press, 1995); Will Kymlicka, *Liberalism, Community, and Culture* (Oxford: Clarendon Press, 1989). While Kymlicka's emphasis changed in the second book in response to the first book's reception, the core argument for access to *one's own* culture that I discuss here remained largely unchanged.

[732] Kymlicka, *Multicultural citizenship,* 83; Kymlicka, *Liberalism, Community and Culture,* ch. 8.

[733] John Rawls, *A Theory of Justice* (London: Oxford University Press, 1971), 563-4, quoted in Ibid, 164.

Once the empirical necessity of culture for genuine autonomy is established, Kymlicka uses it as a springboard for a variety of claims of compensation and accommodation for unequal circumstances of cultural minorities. This is an intricate and controversial argument. But once the premise that a person's culture is vital is conceded, substantial accommodation in some form appears inevitable. [734] Should that premise be conceded?

Kymlicka's relatively superficial treatment of his core construct of "culture" as "a shared vocabulary of tradition and convention" [735] predictably drew skeptical responses. Those with a cosmopolitan bent took issue with the strength of ties to one's culture that his argument required to justify the claims for its preservation. Even those critics who granted that culture is necessary to render individuals' life options meaningful, as Kymlicka contended, challenged the necessity of *one's own* specific culture and the assertion of extreme difficulty of switching cultures.[736] Jeremy Waldron further argued that the supposition of a single cultural framework among a group may itself be mistaken. Even if "life options" have this semantic dimension, he wrote, why can this not be supplied by a mix of cultural sources?[737] Why are coherent cultural frameworks the only adequate vehicles of cultural meaning? As a matter of fact, Waldron pointed out, we are constantly exposed to elements from other cultures such as German folklore, and there seems to be no grounds for saying that they must be first integrated into "our" culture for us to enjoy them – or at least Kymlicka doesn't provide such grounds. A person "needs to understand her choices and the options facing her in contexts in which they make sense," Waldron concluded, "but she does not need any single context to provide commensurable meanings for all the choices she has."[738] Furthermore, even if we accept Kymlicka's assertion that individuals' autonomy requires "access to" their own culture, it is not clear how this access is impeded by its minority status, even if policies put in place by the majority actively limited its public role (say through instituting a single official language or prohibiting their norms of dress). Certainly such repression may inhibit a culture's long-term survival, but why should this impact the culture as a means of autonomy for individuals who already possess it (the basis of Kymlicka's argument)?

Kymlicka rejects Waldron's assertion that individuals can substitute a "mélange" of sources for a single cultural framework. He argues that we engage elements from other cultures from *within* our particular societal culture. Thus, for example, the American version of the Brothers Grimm fairy tales notoriously sanitize the violence of the originals to harmonize them with the American expectations about fairy tales. Regarding the basis of individuals' claims to *their* culture, Kymlicka offers two responses. First, it is simply the case that the process of cultural adaptation is painful and difficult, and like any burden it gives rise to claims of compensation when imposed on others. Even if many people do take on it willingly, its involuntary imposition deserves redress.

---

[734] For example, minorities always incur extra costs compared to the larger cultural community, and may need certain rights, such as resettlement protections or assistance (Kymlicka, *Liberalism, Community, and Culture*, 184-190; Kymlicka, *Multicultural Citizenship*, chs. 5-6).

[735] Kymlicka adopts this definition from Ronald Dworkin (Ronald Dworkin. *A matter of principle*. (London: Oxford University Press, 1985), 232).

[736] Kwame Anthony Appiah *Cosmopolitanism: Ethics in a World of Strangers* (Norton, 2006); Waldron, Jeremy. "Minority cultures and the cosmopolitan alternative." *U. Mich. JL Reform* 25 (1991): 751.

[737] Jeremy Waldron. "Multiculturalism and mélange." *Public education in a multicultural society* 102 (1996): 90-118.

[738] Ibid, 104.

Second, explaining the difficulty of such transitions, he notes that "people have a deep bond to their own culture."[739] Cultures thus deserve respect and protection not only for the instrumental reason that they provides meaningful life choices, but because one's culture is an integral part of one's identity, and injury to a person's culture equates to injury to the person.

Why does culture have this importance to personal identity? Kymlicka deflects the question as irrelevant: "I suspect that the causes of this attachment lie deep in the human condition, tied up with the way humans as cultural creatures need to make sense of their world, and that a full explanation would involve aspects of psychology, sociology, linguistics, the philosophy of mind, and even neurology. But whatever the explanation, this bond does seem to be a fact."[740] The assertion is problematic in that the bond's existence does not automatically generate grounds for moral claims. One may form a deep attachment to a disability, or even an abuser, without necessarily creating such grounds. Kymlicka needs to explain by reference to the nature of this bond why culture deserves the status he wants to assign to it. The supposed fact of the cultural bond also conflicts with Kymlicka's spirited affirmation of the liberal idea that human beings are free to "revise and reject" their projects and values, that "we have an ability to detach ourselves form any particular communal practice… [that we] can and should acquire our tasks through freely made personal judgments about the cultural structure, the matrix of understandings and alternative passed down to us by previous generations, which offers us possibilities we can either affirm or reject."[741] Can he reconcile the strong attachment to one's cultural identity with this endorsement of liberal autonomy?

To decide whether Kymlicka can rescue his argument one must ask the empirical questions about social psychology that he wants to dismiss. A theory of embodied practice contains resources for a sympathetic account since it renders culture not as a set of propositional beliefs but a higher order system of practice-based semantic frames *through which* we make sense of beliefs and come to accept or reject them. It thus accommodates Kymlicka's notion of autonomy and provides a vocabulary which makes sense of his empirical premises: that culture – and particularly one's own culture – is necessary to make sense of "life options" and that transitions between cultures may be sufficiently difficult to ground extensive claims on society. EPT explains how by shaping one's physical environment, culture-specific practices influence cognition and preconscious perception in deep and systemic ways -- without sliding into cultural determinism (see section IV.A). It also points toward an explanation of the precious value of cultural group identity: it is the organizing factor for the enacted practices that sustain meaning and meaningful engagement in the social realm, genuinely capturing a distinct way of life. And the fact that the elements of embodied meaning are continuously subject to reinforcement or decay explains people's (limited) ability to modify their culture or acquire a new one and the real costs of doing so, on which much of the discussion turns.

---

[739] Kymlicka, *Multicultural Citizenship*, 88.
[740] Ibid, 90.
[741] Kymlicka, *Liberalism, community and culture*, ch. 4, 50-51. Although the two contentions are taken from different publications, *Multicultural Citizenship* does not substantially backtrack on Kymlicka's earlier liberal aspirations.

On the other hand, by closely connecting culture to daily "forms of life" EPT may weaken some of Kymlicka's claims for cultural particularity and instead provide support for a cosmopolitan position. On balance, people are likely to agree on practical outcomes before agreeing on the reasons for those outcomes.[742] Thus, most Americans would agree Congress should not ban building of mosques though their reasons why may not coincide. Looking at practices that are most constitutive of socially shared meanings we may find that there are more bridges than walls between cultures. Closer inspection may show that in many instances cultural cores have a great deal of overlap and that apparent differences in the life options that they offer are mostly limited to the periphery and so deserve less consideration.

The value of an embodied theory of meaning in the normative debate over "culture" is therefore not to buttress one side or the other. It is surely evident that a person's cultural identity can be neither a pure mélange, an assemblage of items picked out from a buffet of decontextualized cultural options, nor a rigid Geertzian mega-structure. The contribution, rather, is to help navigate the ground between these two extreme positions. Often the entire spectrum marked out by two antithetical positions is subsumed as the "middle ground" about which only vague, indiscriminate statements are made: culture is a starting point, culture influences but does not determine individual actions, etc. But where one takes a position on this spectrum has significant practical implications, demanding more fine-grained, empirically-based categories.

The specific debate over cultural rights that Kymlicka helped to bring to prominence has ebbed over the past decade and a half, as the enthusiasm for multicultural policies has waned in many of countries.[743] But the issue remains topical in more specific contexts such as welfare policy in diverse societies[744], minority governance and sovereignty[745], and immigration and transnational citizenship.[746] The broader debate over the nature of culture likewise endures. One difficulty attendant to any attribution of a specific culture to a group is that it appears to require identifying properties possessed exactly by the members of that culture and no others. This is problematic, since within any given social unit one cares to identify with a "culture" there will be meanings that

---

[742] Appiah, *Cosmopolitanism.*

[743] Brian Barry suggests the debate petered out because it reached a consensus by default as those who objected to multiculturalism – which may have been a majority of theorists – simply moved on to other topics (Brian Barry. *Culture and equality: An egalitarian critique of multiculturalism* (John Wiley & Sons, 2014 [2001])). In practice, the target of many participants in the multiculturalism debate was the integration of large Muslim and non-European minorities in Europe, a project which appears to have stalled (Steven Vertovec and Susanne Wessendorf, eds. *The Multiculturalism Backlash: European discourses, policies and practices* (Routledge, 2010)).

[744] Alberto Alesina and Edward Ludwig Glaeser. *Fighting poverty in the US and Europe: A world of difference*. Vol. 26. Oxford: Oxford University Press, 2004; Keith Banting and Will Kymlicka, eds., *Multiculturalism and the Welfare State: Recognition and Redistribution in Contemporary Democracies* (Oxford: Oxford University Press, 2006).

[745] On governance see Clarissa Rile Hayward. "What can political freedom mean in a multicultural democracy? On deliberation, difference, and democratic governance." *Political Theory* (2011). On sovereignty, see Avishai Margalit and Joseph Raz. "National self-determination." *The journal of philosophy* (1990): 439-461. While the academic debate over minority demands for political sovereignty has receded, the issue remains topical, since the number of regions in the world wishing to do so appears to be on the rise.

[746] Irene Bloemraad, Anna Korteweg, and Gökçe Yurdakul. "Citizenship and immigration: Multiculturalism, assimilation, and challenges to the nation-state." *Sociology* 34.1 (2008): 153.

will be contested. There will be variation among its members and overlap with nonmembers frustrating attempts to draw consistent contours of a culture by reference to its contents.[747]

In response to this critique of substantive conceptions of culture, Alan Patten offers a procedural definition where "the existence of a shared culture is *constituted* by the exposure by some group of people to a common and distinctive set of formative conditions."[748] On this view, "what is shared, when people share a culture, is exposure to a common set of formative influences." Culture is kept as an undefined "precipitate" of a shared socialization experiences.[749] This account immediately simplifies one crucial normative challenge of the multiculturalist enterprise – distinguishing the problematic instances of cultural disappearance from the entirely acceptable instances of cultural evolution. Exposure to a common set of formative influences by definition ensures continuity of a culture. Thus continuity of institutions within a social group, or, more precisely, continuity of control of these institutions by the group, signals the desirable outcome of preservation of a culture even if most of its former content changes over time.

My synopsis of Patten's account is cursory because the overall scheme is a familiar one, echoing both Schatzki's and, in a different way, Bourdieu's. Its difficulties are likewise familiar. Patten is attempting to address the essentialism objection without undermining support of the multiculturalist position.[750] He devotes a section of his article to showing that it still makes "sense to think of cultures as mattering to their members" under his definition of culture. He recognizes that "[i]f it did not matter to people how their cultures were faring, the multicultural project would have trouble getting off the ground."[751] But while he gives a compelling response to the essentialism objection, it is not clear he achieves this second goal. In addressing this concern he only demonstrates that culture as he conceives of it (shared formative conditions) *can* provide the expected set of options and *can* be something that people care about (indirectly). He describes how culture on his account remains a valuable source of life options with an example of a hypothetical member of a minority culture, Misael: "Misael can reasonably expect to have better access to the particular *options he values* in a Machiguenga setting than in a dominant culture setting, not because Machiguenga culture is defined in terms of those options, but because the socialization processes that make it the distinctive culture that it is will generate those options more reliably than will the dominant culture."[752] That is surely right, but it puts the cart before the horse – it ignores the fact that the reason Misael values those options to start with is that they express his culture. Once we sever

---

[747] Incidentally, Kymlicka is not immune from this objection. He attempts to deflect it, writing that "societal culture" is a "shared vocabulary" that is "very diffuse and open-ended"; and that "cultures do not have fixed centres or fixed boundaries." But his argument presupposes drawing fairly strict, ascertainable boundaries between majority and minority cultures – otherwise how could we ever tell who is in a position to make claims for special rights?

[748] Alan Patten. "Rethinking Culture: the social lineage account." *American Political Science Review* 105.04 (2011): 735-749, 741

[749] Though Patten does not comment on this, his approach is remarkably similar to Bourdieu's notion of the *habitus* as a consistent response strategy developed in shared objective conditions, except that while Bourdieu was quite vague about the nature of dispositions composing the *habitus*, Patten is altogether silent. The upshot is that Patten's proposal is vulnerable to many of the practical critiques leveled at Bourdieu.

[750] Ibid, 736.

[751] Ibid, 747.

[752] Ibid, 748, emphasis added.

the "options" from the ways of life and semantic webs from which they spring, these options become little more than individual preferences, undermining the claims for special protection of cultures that Patten wants to bolster. Similarly, he simply asserts that a history of interaction and shared experiences give rise to strong personal attachment that demands respect. Again, the occurrence of the attachment is empirically undeniable, but it is far from clear that the fact of emotional attachment to one's cultural group is sufficient justification for strong normative claims on society; this needs further argument. Whereas Kymlicka had a story (albeit an incomplete one) about the way culture factors into the recognized good of personal autonomy, this link appears to be entirely unsupported in Patten's framework.

Patten moves too quickly in rejecting substantive conceptions of culture. If the "core-periphery" model of practice presented in section VII is successful, a similar approach can be marshalled to fashion a substantive yet flexible conception of culture that provides a more robust basis for a multiculturalist position. Patten does consider a crude version of this possibility, what he calls a "threshold" approach, where membership in a culture is a matter of holding a threshold number of constituent beliefs.[753] But he dismisses the task of setting such a threshold as impractical in the general case and does not pursue the extension suggested here. In short, while tracking the cultural institutions as he proposes can serve as a useful proxy for making judgments about vigor of a cultural group, this omits culture's function of facilitating people's understanding their world and their place in it, and no account of culture can successfully ignore this**.**

B. Applications for Political Theory – Deliberative Democracy

An embodied conception of agency also carries important implications for normative democratic theory, in particular, the ongoing debate between advocates of aggregative[754] and deliberative[755] conceptions of democracy.[756] The aggregative view starts from the premise of moral equality of all citizens or, more specifically, of their preferences and

---

[753] Ibid, 736, ff3.

[754] Common points of reference for this model are Joseph A. Schumpeter, *Capitalism, socialism and democracy* (Routledge, 2013[1942]); Robert Alan Dahl, *Democracy and its Critics* (Yale University Press, 1991); William Riker, *Liberalism Against Populism: A Confrontation Between the Theory of Democracy and the Theory of Social Choice* (Waveland Press, 1982); David Austen-Smith, "Strategic models of talk in political decision making." *International political science review* 13.1 (1992): 45-58.

[755] Notable accounts appear in Jürgen Habermas. *The theory of communicative action* (Beacon press, 1989); Jane J. Mansbridge*, Beyond adversary democracy* (University of Chicago Press, 1983); Amy Gutmann and Dennis Thompson. "Why deliberative democracy is different." *Social Philosophy and Policy* 17.01 (2000): 161-180; Dennis F. Thompson, "Deliberative democratic theory and empirical political science." *Annu. Rev. Polit. Sci.* 11 (2008): 497-520; Samantha Besson and José Luis Martí, eds., *Deliberative democracy and its discontents* (Ashgate Publishing, Ltd., 2006); James Fishkin and Peter Laslett, eds. *Debating deliberative democracy* (John Wiley & Sons, 2008).

[756] Of course, not all democratic theorists break into these two camps. Ian Shapiro, for example, interprets both aggregative and deliberative camps to be engaged in the project of pursuing the common good (albeit in different ways) and instead opts for democracy as an antidote to domination (though, problematically, defining domination as "illegitimate exercises of power") (Ian Shapiro. *The state of democratic theory* (Princeton University Press, 2009)). Jamie Kelly provides a useful taxonomy of theories of democracy, arranged along a spectrum of "epistemic demandingness," most of which are represented here (Jamie Terence Kelly, *Framing Democracy: A Behavioral Approach to Democratic Theory* (Princeton University Press, 2012), ch. 2).

interests. The purpose of the democratic process is therefore held to be the accurate and fair gauging and aggregating of those preferences. Since individuals' preferences are assumed to be already formed, proponents point to the neutrality and inherent fairness of a purely procedural approach. They also argue that a thicker and more ambitious conception of democracy (such as a process of forging consensus) is implausible for a variety of reasons: preferences and positions are likely to be already formed and essentially rigid; extant political divisions are typically too deep to be bridged; and any process more involved than aggregation of preference is too easily corrupted or subverted.

Advocates of deliberative democracy reply that to be worth our endorsement and respect, a conception of democracy must do more than simply gauge raw preferences. Even to give equal consideration to each person, as the aggregative theory of democracy purports to do, the argument goes, decisions made in the name of the people must take place under certain conditions. At the very least, decisions ought to be justified by giving reasons and "responding to others' reasons in return."[757] This requires citizens to step outside their personal situation and produce and appreciate reasons framed in terms of the common good. They must evaluate arguments against public standards of correctness, rather than according to personal preferences or purely emotional, rhetorical appeal, and adjust their beliefs and views if contrary arguments are found compelling. More recently, democratic "deliberation" has been interpreted more literally, as occasions where groups of citizens are imagined to actually come together and discuss matters of government. This is thought to produce a wide variety of further benefits: greater factual knowledge; civic education; imparting an orientation toward the "common good"; the forging of a collective will – which in turn lends greater legitimacy to the political decisions ultimately made; and, finally, greater social welfare overall. To produce these benefits, however, deliberation must not only satisfy the epistemic demand of proper reason giving, it must also have a certain character – impartial, respectful, sincere. Participants must genuinely listen to contrary argument and appreciate their merit; they must be willing to be persuaded.

This move from deliberative democracy as a norm of public reason to one of in-person deliberation makes strong assumptions about abilities of participants under real-world conditions. Critics of deliberative democracy contend the imagined form of interaction is unlikely to occur in practice. They cite a variety of concerns: that some participants will engage in deception and strategic action, turning the deliberative forum into a vehicle of misinformation; that to the extent a "common will" is achieved, it may be a product of conformism and group think rather than genuine deliberation; that a group context for discussion may in fact reinforce prevalent biases and release individuals of normal ethical constraints; and, finally, that unresolvable differences of opinion and values may be aggravated rather than bridged as a result.[758] A number of these concerns

---

[757] Thompson, "Deliberative democratic theory and empirical political science," 498. This "first generation" of deliberative democracy (particularly as articulated by Jurgen Harbermas and John Rawls) was a response to critics of popular democracy such as Carl Schmitt (politics is a competition between groups) and Walter Lippmann (politics is rule by elites).

[758] Jon Elster, "The market and the forum: three varieties of political theory" in James Bohman, ed., *Deliberative democracy: Essays on reason and politics* (MIT press, 1997): 3-34; Adam Przeworski. "Deliberation and ideological domination" In Jon Elster, ed., *Deliberative democracy*. Vol. 1. (Cambridge University Press, 1998): 140; Mathew D. McCubbins and Daniel B. Rodriguez. "When Does Deliberating Improve Decisionmaking," *J. Contemp. Legal Issues* 15 (2006): 9.

may be allayed by paying careful attention to the conditions and procedures of deliberation. But the findings of empirical psychology appear to give further ammunition to the critics for they reveal human cognition to be subject to a number of biases and irregularities that distort the reason and calm judgment that are the basis of the advantages attributed to deliberative democracy.[759] For instance, Jamie Kelly explores the strong effects that framing of political issues has on decision outcomes.[760] To the extent that deliberation – or any theory of democracy – promises to reach epistemically superior (more "correct") decisions, framing effects present a substantial problem, since different decisions will be reached depending on how the same issue is presented.

A more extreme position sees the embodied nature of cognition as not merely a fetter on effective reasoning and agreement, but as an intractable obstacle to most goals of deliberative democrats listed above. William Connolly, for example, argues that differences on the most divisive political topics – marriage equality, abortion, immigration reform – cannot be bridged through deliberation because one's understanding of those issues is inscribed in the "visceral registers" of memory fragments, unconscious habits, and the "infrasensible organization of thought, images, desires and moods."[761] These "visceral registers" exercise a stronger influence on actions and opinions than propositional reasoning. Echoing Bourdieu, Connolly insists that the aspirations of deliberative democracy fail to account for the fact that "thought is a layered process of neural, perceptual, and embodied activity not reducible to conceptual ratiocination alone."[762] Indeed, the thrust of this chapter has been to drive meaning deeper into inchoate bodily process. To the extent that our basic values and conceptual frameworks are rooted in subconscious embodied schemas, to the extent they are constituted by *internal* simulations, they are outside the scope of argument, language, or even, in many cases, reflective introspection.

Yet one can appreciate the valid concerns raised by deliberation skeptics like Connolly without accepting their conclusions. The empirical research he draws on can also be mined for remediation of the demonstrated vulnerabilities of ordinary thought.[763] For one, designers of deliberative fora must strive for more than gathering a representative sample of the population and promoting balanced facilitation. Such fora must be recognized as the sites of political education that they are, and be purposefully structured to counteract known cognitive biases. Because embodied practice theory articulates a specific relationship between mental processes and various physical and situational factors (such as the connection of abstract political concepts to motion and anatomical schemas), it opens the door to salutary use of context to externalize the "visceral register" and prime cooperative semantic schemas and affordances. In the following chapter I will point to some applied methods that can be employed for this

---

[759] For a survey see Andrew F. Smith, "Political deliberation and the challenge of bounded rationality." *Politics, Philosophy & Economics* (2013).

[760] Kelly, *Framing Democracy*; Amos Tversky and Daniel Kahneman. "Rational choice and the framing of decisions." *Journal of business* (1986): 251-278.

[761] William E. Connolly, "A critique of pure politics." *Philosophy & social criticism* 23.5 (1997): 1-26, 13.

[762] Alexander Livingston. "Avoiding Deliberative Democracy? Micropolitics, Manipulation, and the Public Sphere." *Philosophy & Rhetoric* 45.3 (2012): 269-294, 271.

[763] Shawn W. Rosenberg, "Rethinking democratic deliberation: The limits and potential of citizen participation." *Polity* 39.3 (2007): 335-360; Smith, "Political deliberation and the challenge of bounded rationality."

purpose. Connolly's pessimism is also tempered by recognizing that the visceral basis of the problematic, conflicting beliefs are themselves mostly products of social practices.[764] Though Connolly is right that a single deliberative session in itself is unlikely to shift deep-seated perceptions, it *can* plant the seeds for deep transformation on a longer time scale if it is reinforced by other practices.

[764] Livingston, "Avoiding Deliberative Democracy?"

Chapter 5: Embodied Theory Practice Applied

The preceding chapter developed an account of embodied semantics and embodied interpretive practice. It is useful here to pause and summarize the multiple steps of argument that link this account to the motivating questions of the dissertation. The project commenced from the long-recognized incongruity between two apparent facts. On the one hand, social theory and especially most of the literature in sociology is premised on the existence and ubiquity of cultures, traditions, institutions, and other supra-individual patterns and structures evident in all domains of life. On the other, individuals perceive their own actions to be the result of their personal desires and purposes, unconstrained by such external factors, or at least free to alter at them at will. Approaches in social theory that adopt this perspective view history as a product of individual actions thus motivated. Related to this puzzling dichotomy, there is also a notable tension in social theory between accounts that focus on explaining stability and order in the social domain and those that aim to explain its fluidity and change; unsurprisingly, these accounts tend to rely on mutually incompatible ontologies.

Stated thusly, the two dilemmas are clearly too broad to permit meaningful analytic engagement. Hence, one of the objectives of the first two chapters of the dissertation was to clarify and refine their formulations. Since these tensions have been long recognized, another aim of the second chapter was to evaluate the most concerted effort to address them in the past: a series of writings in sociology and anthropology that interpret the social realm as an assemblage of "practices." I termed the distillation of the common elements of these writings "neostructuralist practice theory." This account introduced a number of important points including the very idea of a practice as a common, temporally and spatially circumscribed social behavior; the important role of practical, implicit knowledge in practices; the phenomenal experience of this practical knowledge of "how to go on" as subtle dispositions toward particular actions; the role of material environment and relations among individuals in structuring practices; and, finally, the recognition that a practice is continuously reinforced through its performances. But in presenting this conception of practice in chapter two, I also argued that, much like its structuralist predecessor, it entails the ontological and causal primacy of supra-individual semantic structures. It thus ultimately proves inhospitable to meaningful theories of agency because it cannot properly incorporate the subjective experience of participants.

This conclusion motivated a pivot toward an alternate conception of practice theory that would be principally rooted in the subjective experience of practice performance. I introduced the concept of "situated agency" as a way to highlight this shift in the structure/agency dynamic, where "situating" is taken to occur in the process of making sense of the world. In other words, the claim is that to say that social actors are situated in their particular culture, tradition, language, etc., is to say that it is through the meanings that their culture, tradition, and language afford them that individuals act in the world. But understood in this way, situated agency is not a solution to the original

dilemmas until it is coupled with an explicit account of experiential meaning or intelligibility. I argued that the most compelling basis for such an account is to be found in shared "forms of life" or practices, and so the inquiry once again pivoted to focus on articulating precisely how interpretive practices contribute to intelligibility.

Here Theodore Schatzki's account of practice proved highly constructive because it not only takes intelligibility to be a core function of practices, it also offers an extensively thought out explanation of what meaning *is*. Drawing on Wittgenstein's comments on the pragmatic basis of meaning, Schatzki convincingly connects the sense of intelligibility associated with an element of the environment by an actor to actual doings and sayings that commonly occur there. However, like the neostructuralist version, Schatzki's account of practice and practical meaning ultimately cedes ontological and causal primacy to supra-individual semantic structures because it does not consider the phenomenal experience of the subject and the cognitive substrate of that experience.

Thus chapter four pursued a different way of linking meaning to experience in the world. It incorporated subjective experience into the core of the concept of practice by showing that phenomenal meaning arises out of scientifically identifiable informational and neurophysiological states and cognitive processes. Specifically, it claimed that meaning is a product of subconscious reactivations of fragments of past sensorimotor experience. This buttresses Schatzki's functional and contextual conception of meaning, although close scrutiny of the cognitive mechanisms involved – these include motor schemas, "perceptual symbols systems," and cognitive metaphor – reveals this to be a much more convoluted process than he suggests. Examination of these intermediate steps by which simple informational states are elevated to consciousness (such as allocation of attentional resources and formations of representations and meta-representations thereof), can explain a variety of otherwise puzzling observations, such as the inaccessibility of *some* mental states to introspective attention and forms of intentionality that have been a source of substantial contention for theorists of agency: routine and habitual behaviors, preconscious intentions, and non-phenomenal meaning.

Most significantly, the chapter demonstrates that semantic structures are invoked by conscious mental processes in the course of "active perception", where raw sensory input is automatically filtered through and overlaid with multiple semantic layers: one's momentary concerns and attentional focus; emotional and moral evaluation of the situation; one's skills and abilities; and, perhaps most importantly, possible courses of action or "affordances." This process of constructing a holistic, functional representation of the world yields a horizon of action where certain intentions, desires, and novel ideas become intelligible and therefore possible. Because the mental processes of reflective monitoring and deliberative reasoning can also be interpreted as following affordances, this horizon of action is involved in guiding not only routinized, unreflective activity, where certain stimuli prompt a familiar response, but also consciously monitored behavior. This account therefore goes beyond Schatzki's version of interpretive practice to articulate a robust form of intentional agency. By tracing how shared attention subtly inflects thought and behavior in social contexts, it also shows that sociality is a basic features of intentional agency.

Early on, I flagged the possibility that my formulations of structure and agency were framed in a way that made their integration conceptually impossible. Chapter four

shows that this is not so, that by interrogating folk psychology and opening the black box of the mind to investigate the underlying processes of embodied intelligibility, intentionality, and semantic innovation, the apparent dichotomy of "internal" *ex nihilo* volitions and ideas and "external" influences can be superseded. Embodied practice theory represents a novel form of the subject-structure relationship. Rather than regarding supra-individual semantic structures (variously specified in social analysis as culture, tradition, paradigms, routines, and so on) as "toolkits" or reservoirs of meaning into which the individuals dip as needed, EPT views them as being integral to the very constitution of personal agency. These structures are activated not at the behest of the conscious mind or *in place* of it, but as an essential component of its manifestation.[765] Structural, macro-level explanations are in this way rendered compatible with familiar forms of causal intentional agency and creativity. The theory of embodied practices also mitigates the conceptual tension between explanations of change and stability since the cognitive mechanisms it brings to the fore can explain why some elements of a practice are more or less likely to change than others, facilitating explanations of endogenous change within practices that occur without any external catalysts.

Beyond a theoretical advance, embodied practice theory also offers substantial value to applied social science. To buttress this final contention, the present chapter closes the dissertation by considering how EPT fits into the larger social science program and its contributions to that enterprise. I begin by locating the theory in the epistemological terrain of the discipline. I argue that embodied practice is best construed as a network of "cognitive mechanisms," and compare the form of its explanations to that of other common analytic frameworks. I then suggest potential payoffs of EPT for applied research. Section II considers several empirical methods that are applicable to its cognitive mechanisms. I close the chapter by proposing some ways that these methods may be leveraged in analyzing actual performances, illustrating the suggestions with two forms of deliberative democracy: Occupy General Assemblies and James Fishkin's Deliberative Polls.

I. EPT, Explanations, and Other Analytic Frameworks

A core function of any analytic framework is explaining the phenomena in its domain. What sort of explanations does embodied practice theory provide? What is their epistemological status? This section offers an answer to these questions and compares EPT to other familiar analytic frameworks, some of which have already been mentioned in the first chapter and throughout the dissertation. Unlike these previous instances, where I contrasted the effectiveness and scope of other frameworks to that of practice theory, the comparison here focuses on their respective epistemological justifications. In

[765] Compare this relationship, for example, with the one presented by Feldman and Pentland in their classic study of routines, where the semantic aspects of routines influence individual performances by "guiding," "accounting," and "referring." ("Reconceptualizing organizational routines", 105):
Guiding – agents (passively) monitor their execution and improvise as necessary
Accounting – the ostensive aspect of routines can provide ready-made justifications for actions, e.g., which questions may be asked in a hiring interview
Referring – a way to group related activities under one concept without needing to understand all of its complexity.

particular, the discussion picks up on and expands the contrast of EPT with macrosociology that appears in the introduction of chapter 4, where I first articulate the benefits of fine-grained analysis.

One way to interpret practice theory is to view it as introducing a new "logic" of individual behavior, an alternative to the "logic of consequentialism" of utilitarian economic theory and the 'logic of appropriateness' that explains actions by reference to identity-based "norms and rules."[766] A "practice logic" would thus impute a different motivational structure to individuals, which is very much in line with how Anthony Giddens views practices, for example.

But while construing practice as a "logic" can be productive in many situations, I want to suggest a different approach to practice-based explanations that also underscores the social and macroscopic aspect of practices crucial to the social science enterprise. The approach I have in mind comes out of a recent trend of supplementing or even replacing covering-law statistical accounts in the social sciences with explanations framed in terms of mechanisms.[767] In a seminal piece, Charles Tilly compares social mechanisms to other common methods of explanation in political science, particularly the leading covering law approach which traces to Carl Hempel's account of deductive-nomological explanations. Such explanations seek to subsume uniform patterns in the world under general laws and understand causality in terms of regularity and correlation between variables.[768] While they often do seek to interpret the observed correlation between the initial conditions and outcomes, those interpretations are often ancillary – the primary goal is to establish the relationship. Some even explicitly assume the intervening processes to be either devoid of structure or not realistically analyzable, harboring a Humean suspicion of the very possibility of causality as something more than correlation, and thus stop at establishing expectations and predictions.

Against this and other approaches, Tilly advocates accounts that explain the target phenomena in terms of mechanisms and processes, defining mechanisms as "a delimited class of events that change relations among specified sets of elements in identical or closely similar ways over a variety of situations."[769] Mechanism-based explanations have

---

[766] Ted Hopf, "The Logic of Habit in International Relations," EJIR, (2010) 16, 539-561 Andreas Reckwitz's understanding of practice theory is also very similar (Andreas Reckwitz. "Toward a Theory of Social Practices A development in culturalist theorizing." *European journal of social theory* 5.2 (2002): 243-263).

[767] For a survey see Peter Hedström and Petri Ylikoski. "Causal mechanisms in the social sciences." *Annual Review of Sociology* 36 (2010): 49-67. Explicit arguments in favor of mechanism based explanations in social sciences appear, for example, throughout Jon Elster's work. For a list of other such works see Gerring, John. "The mechanismic worldview: Thinking inside the box." *British Journal of Political Science* 38.01 (2008): 161-179**,** esp. footnotes 2 and 3.

[768] Carl G. Hempel and Paul Oppenheim. "Studies in the Logic of Explanation." *Philosophy of science* 15.2 (1948): 135-175.

[769] Charles Tilly. "Mechanisms in political processes." *Annual Review of Political Science* 4.1 (2001): 21-41, 25-6. For a discussion of various definitions of "mechanism" in social science literature see Gerring, "The Mechanismic worldview." Renate Mayntz credits Robert Merton and Georg Karlsson with introducing the idea of mechanism-based explanations in social sciences (Renate Mayntz. "Mechanisms in the analysis of social macro-phenomena." *Philosophy of the social sciences* 34.2 (2004): 237-259)**.** It should be noted, however, that while mechanisms give a qualitatively different answer than covering law accounts, they are not an epistemologically superior source of truth because the claim that a given mechanism is actually at work in a given instance must itself be justified in terms of lower level explanations, ultimately resting in correlations.

greater explanatory power than the covering law model since they seek to inform *why* the initial conditions (independent variables) lead to the outcome (dependent variables) by exposing the intervening processes.[770] They also answer the all-important 'hows': "how actors relate, how individuals come to believe what they do or what they draw from past experiences, how policies and institutions endure or change, how outcomes that are inefficient become hard to reverse, and so on."[771] Mechanisms provide evidence that the effect in question is not purely spurious or dependent on some third factor. By exploring the mediating factors, these "mechanismic"[772] explanations are not merely predictive (like those framed in terms of laws) but generative. They can offer insight into deviations and anomalies, indicate outcomes under alternative conditions and interventions, and reveal isomorphisms between processes in different domains where the same mechanism (at an appropriate level of abstraction) is at work. Functionally speaking, mechanismic explanations move down in the level of description and expand the causal link between two events into a longer sequence of such links that are themselves better understood, more analytically tractable, or, for whatever reason, less interesting. They "narrow the gap" between observed cause and effect.[773] Such explanations can operate at the level of individuals (e.g., adaptive expectations), collective actors (e.g., policy ratchet effects), or entire social systems (e.g., path dependence).[774] Ontologically speaking, mechanisms are simply schematized event sequences that causally link the initial conditions and outcomes.[775]

But while mechanismic explanation is becoming increasingly common in sociological literature, it is most valuable when located at the right level of description for a particular line of inquiry. For instance, Neil Gross's recent article on a pragmatist theory of social mechanisms describes "Actor-Problem Situation-Habit-Response" chains (the whole chain is the mechanism), defining the work of a pragmatist social science as the uncovering, describing and classifying of such chains.[776] This formulation of mechanisms reduces a macro social phenomenon to behavioral tendencies of individuals, an analytically useful move. But in doing so it encapsulates those tendencies within a single unitary variable of "habit," which prevents further analysis of how habits come about, evolve, or spread through a population. Thus, instead of characterizing Sewell's "virtual schemas" as habits, as Gross does, I think it is more informative to say that habits are schemas. Why? Sewell's schemas have explanatory force on both group level of

---

[770] Tulia G. Falleti and Julia F. Lynch. "Context and causal mechanisms in political analysis." *Comparative Political Studies* 42.9 (2009): 1143-1166.; Georg H. Von Wright. *Explanation and Understanding*. 1971. (Ithaca: Cornell University Press).

[771] Falleti and Lynch, "Context and causal mechanisms," 1147.

[772] Because mechanism-based explanations are contingent and partial, Gerring terms them "mechanismic", in contrast to the determinism and automaticity suggested by the term "mechanistic" (John Gerring, "The Mechanismic worldview").

[773] Peter Hedstrom and Richard Swedberg. "Social mechanisms: An introductory essay." In Peter Hedstrom and Richard Swedberg eds., *Social mechanisms: An analytical approach to social theory* (1998): 1-31, 25. This assumes hierarchical reductionism, under which any event can be recursively explained in this way (Richard Dawkins. *The blind watchmaker: Why the evidence of evolution reveals a universe without design*. WW Norton & Company, 1996).

[774] Falleti and Lynch, "Context and causal mechanisms," 1150.

[775] Mayntz, "Mechanisms," 24.

[776] Neil Gross. "A pragmatist theory of social mechanisms." *American Sociological Review* 74.3 (2009): 358-379.

analysis and the individual level, and lend themselves to diachronic analysis through polysemy and transposition. A pragmatist habit, on the other hand, is essentially "an acquired predisposition to *ways* or modes of response."[777] It is thus an explanatory mechanism with respect to group-level of analysis, but at the level of the individual it is purely descriptive. The APHR chain construct is not generative and says nothing about alternate chain formulations (i.e., what may be the outcome of a particular habit in a novel situation). Hence, notwithstanding Gross's assertions, it actually impedes the analysis of habits in many situations.

Embodied practice theory, focuses on mechanisms one level lower: cognitive and psychological mechanisms and their interaction (illustrated in Figures 1-3 of the previous chapter), which together make up the habit link in Gross's chains. On Charles Tilly's description, "cognitive mechanisms operate through alterations of individual and collective perception, and are characteristically described through words such as recognize, understand, reinterpret, and classify."[778] Under cognitive mechanisms Tilly also includes mental tendencies of individuals, such as propensities to "satisfice" instead of maximizing.[779] A common form of the belief-formation "cognitive" mechanism is the self-fulfilling prophecy, such as a run on the bank, consisting of the chain *perceptions* → *beliefs* → *actions* → *systemic effect* → *perceptions*. Feldman and Pentland's work is a notable example, where they decompose organizational routines into ostensive and performative aspects, allowing the analysis of how the former informs performance.[780] Marshall Sahlins's notion of subjective risk, encountered in the second chapter is a high-level description of a "cognitive" mechanism that alters cultural schemas. These can be considered mechanisms in the context of explanations of social outcomes because they posit a sequence of events that regularly connects the initial and terminal conditions.

Although the mechanisms just described may be considered "cognitive" in common parlance, they are more aptly called "psychological mechanisms," to distinguish them from lower level cognitive mechanisms that pertain to the processes responsible for the observed psychological patterns, a variety of which I adduced in the previous chapter. Affordances – both the traditional sensory and mental kinds – and complex perception more generally, described in section IV of the previous chapter, are such cognitive mechanisms. They constitute a conduit by which supra-individual semantic structures (i.e., common conceptual metaphors like SOCIETY is FAMILY and GOVERNMENT is a PARENT and particular understandings of "freedom") regularly influence individual action without precluding personal agency. The consistent nature of this influence is what qualifies this as a "mechanism" for present purposes and lends validity to the empirical methods described in the following section. These cognitive mechanisms comprise the "perception" link in the 'self-fulfilling prophecy' psychological mechanism described above and explain how systemic effects are interpreted by individuals in the process of belief-formation. Regrettably I have had to defer the exploration of specific

---

[777] John Dewey. *Human nature and conduct: An introduction to social psychology*. (Carlton house, 1922), 42.

[778] Tilly. "Mechanisms in political processes," 24.

[779] For a cogent discussion of such mechanisms and their role in social theory see Jon Elster, "A Plea for Mechanisms" and T. Kuran, "Social Mechanisms of Dissonance Reduction" in Social mechanisms in Peter Hedstrom and Richard Swedberg eds., Social mechanisms: An analytical approach to social theory (1998).

[780] Martha S. Feldman and Brian T. Pentland. "Reconceptualizing organizational routines as a source of flexibility and change." *Administrative Science Quarterly*48.1 (2003): 94-118.

instances of these semantic structures to future work. My purpose here has been only to lay the conceptual groundwork.

It is important to emphasize what the framing of embodied practices as cognitive mechanisms does *not* imply. It does *not* reduce agency or social reality to the automatic churning of these mechanisms. This is reflected in the distinction made earlier between "mechanistic" and "mechanismic" explanations (see note 7 above). The former connotes automaticity and determinism characteristic of classic structural explanations and early modern theories of society (Levi-Strauss's myths could be viewed as *mechanistic* explanations in this sense). In contrast, *mechanismic* explanations are inherently contingent and partial. Additionally, thought processes, intentionality, creativity and other subjective experiences are not *reduced* to the specific mechanisms of embodied practice theory in the technical sense. Following the model of consciousness indicated in the previous chapter, though agency *supervenes* on such mechanisms, it is not reducible to them.

To flesh out the intellectual context of EPT a little further, Figure 4 compares it to other non-cover law explanatory frameworks. Rational choice is an explicitly black box account, since it attributes causal force to assumptions that are simply postulated (personal preferences and the goal of maximizing utility). Similarly, the habits that form the engine of Gross's pragmatist mechanism theory are themselves black boxes. As I hope I have demonstrated, the "habits" of thought that constitute the mental aspect of practices *do* warrant further analysis. In this regard EPT bears similarity to behavioral economics, which is exclusively concerned with the causal influence exercised by subconscious cognitive processes and New Institutionalism in political science which, much like traditional sociology, attributes causal force to various forms of scripted knowledge and informal patterns of shared beliefs and socialized expectations. But unlike these two, EPT does not take non-personal factors as the sole locus of causality.

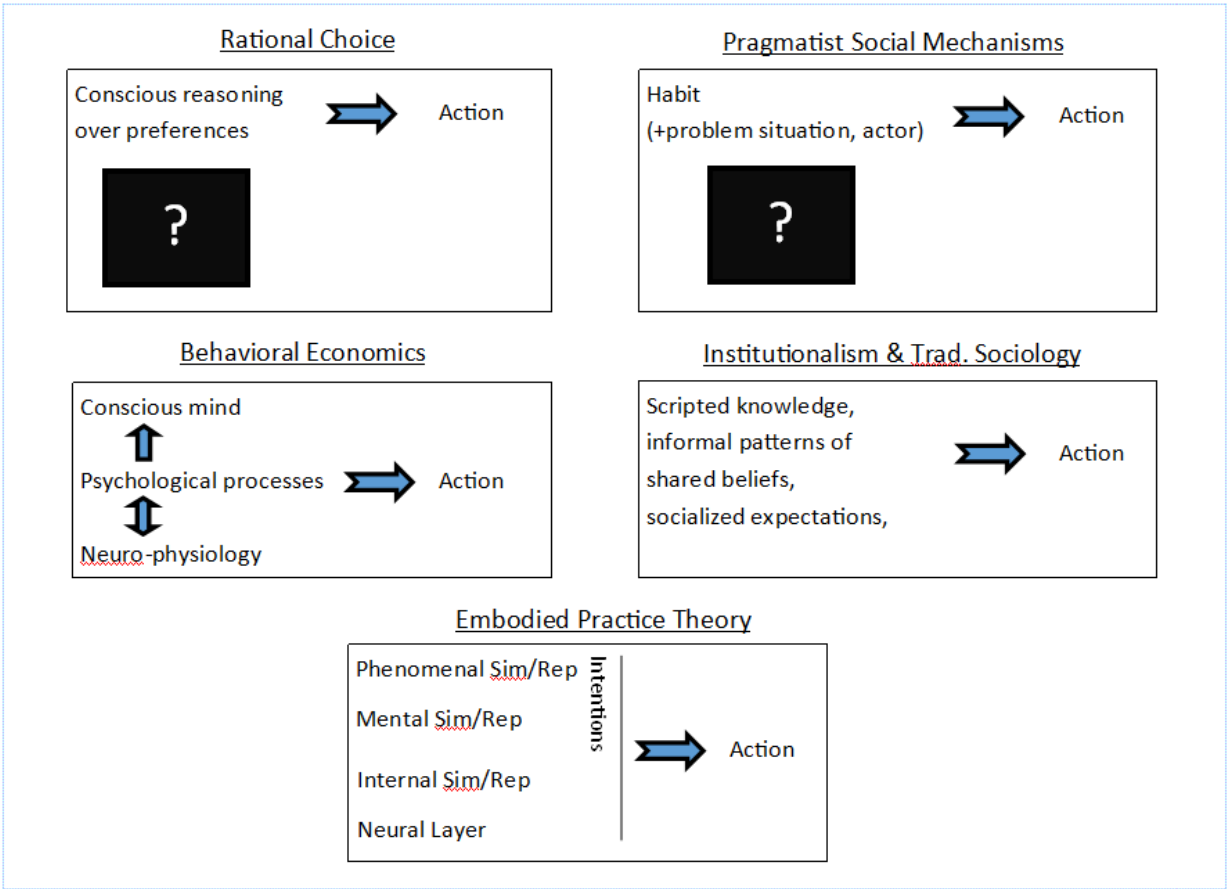

Fig 1. The causal structure of selected forms of explanation in social theory.

As illustrated, the mechanismic explanation of EPT strike a balance between pure historical narratives and universal laws. Axel van den Berg extolls mechanismic explanations as a salutary alternative to grand theory narratives such as those of Bourdieu and Giddens.[781] But it seems to me their projects are not superseded but enhanced by identification of the mechanisms that drive their theories. Addressing major questions in a discipline surely requires fitting individual causal mechanisms into an overarching framework. That is what I take embodied practice theory to be doing.

Given that I have placed so much emphasis on mental states, can EPT still be meaningfully called a theory of *practice*? It is clearly a "cultural theory," to use Andreas Reckwitz's term, because, like previous versions of practice theory, it understands the structure of the social domain to be constituted by "'shared knowledge' which enables a socially shared way of ascribing meaning to the world."[782] Like other cultural theories, it explains actions in the world by reference to structures of knowledge and actors' interpretations that those structures enable. But in his taxonomy of cultural theories, Reckwitz contrasts practice theory with "cultural mentalism," which locates the 'social' "in the 'head' of human beings." Is EPT a form of mentalism?

[781] Axel Van den Berg. "Is sociological theory too grand for social mechanisms." In Peter Hedstrom and Richard Swedberg eds., *Social mechanisms: An analytical approach to social theory* (1998): 204-237.
[782] Andreas Reckwitz. "Toward a Theory of Social Practices," 246.

Reckwitz distinguishes two forms of mentalism. Its objectivist form is concerned with symbolic structures out of which human behavior flows. The classic structuralism of Levi-Strauss and Ferdinand de Saussure is the canonical example of objectivist mentalism, but it also describes Bourdieu's work. The subjective version of "cultural mentalism" strives "to describe the subjective acts of (mental) interpretations of the agents and their schemes of interpretation," and how these contribute to enacted practices.[783] Alfred Schutz's social phenomenology, is representative of subjective mentalism.[784] While subjective mentalism captures the crucial element of subjective meaning missed by the objective form of mentalism, its exclusive focus on phenomenal experience of individuals hinders attempts to extrapolate it to social activity. EPT has obvious overlap with both forms of mentalism. It is concerned with phenomenal meaning, but it also aspires to study mental content that is not consciously available in the moment of practice. Embodied practice theory cannot be entirely reduced to mentalism because the meaning and implications of these structures are only revealed dynamically, in the course of enactment of the practice.[785] EPT may be called 'epimentalism,' in the same sense that epigenetics studies the interaction of genes and the environment as guiding an organism's development.

II. Methodological Implications

This section examines what a theory of embodied practice adds to the social analysis toolkit. Much of its domain is accessible by traditional methods. Written and articulated communication is subject to ordinary discourse analysis; the understandings and knowledge of participants may be studied through structured interviews and questionnaires[786]; extra-verbal aspects of communication may be observed and coded – as may the gestures, movement patterns, rhythms of movement and speech, characteristics of locations, and patterns of interaction of participants.[787] Methods from ethnomethodology such as "breaching experiments"[788] and anthropological immersion may be employed to study subjective meanings.[789] EPT helps to conceptually integrate this wide array of evidence in the investigation of a practice.

---

[783] Ibid., 247.

[784] Alfred Schutz, *The Phenomenology of the Social World*, tr. George Walsh and Frederick Lehnert, Evanston, Ill., Northwestern University Press, 1967.

[785] The meanings that it EPT is concerned with could logically be had by a brain in a vat that only falsely believed to be engaging in actual physical behaviors. However, in the real world, these meanings occur in the context of actual engagement. Unlike symbolic semantics, embodied meanings are always relative to engagement in the world.

[786] In fact, the methods of distilling expertise in a practice is subject of active study (Laura G. Militello and Robert JB Hutton. "Applied Cognitive Task Analysis (ACTA): A practitioner's toolkit for understanding cognitive task demands." *Ergonomics* 41.11 (1998): 1618-1641).

[787] For a discussion of these elements in the context of a natural science laboratory see Friedrich Glock. "Design tools and framing practices." *Computer Supported Cooperative Work (CSCW)* 12.2 (2003): 221-239.

[788] Harold Garfinkel, *Studies in Ethnomethodology* (Wiley, 1991).

[789] E.g., Loïc JD. Wacquant, *Body & Soul: Notebooks of an Apprentice Boxer* (Oxford University Press, 2004).

Furthermore, by unpacking the process by which semantic structures flow into the phenomenal experiences of meaning and agency, EPT also introduces a new category of elements to be analyzed (subconscious semantics) and postulates particular forms of interaction between these and other components of a practice. This in turn demands turning to a number of methods not typically associated with social science. While future empirical research will no doubt expand the selection, some examples may already be discerned:

- *Study of affordances.* Since affordances are central to practices as defined here, one cannot avoid investigating the subjective experience of interaction between the self and the environment and between the self and others (social affordances).[790] At a basic level this entails tracking the uses of material objects through simple observation and interviews with expert practitioners. But more intensive methods can be imagined. For instance, attention allocation[791] can be assessed with advanced experimental methods such as eye tracking and electrical or fMRI measurements of sub-threshold motor impulses in the course of scene or object observation.

- *Direct cognitive observation.* More generally, the subconscious understandings of a practice can be studied directly through behavioral and neural imaging methods. For example, in studying martial arts, traditional participatory investigation and expert interview can be complemented with more tailored experiments, such as having novices watching selected videos of experts or vice versa and fMRI recordings of practice enactment. These can yield more precise understanding of the cognitive changes that occur in the acquisition of a practice, and of the nature of underlying semantic schemas that may have ramifications in other aspects of a person's life.[792]

- *Analysis of semantic framing within discourse.* The importance of semantic framing for understanding and decision-making is well established.[793] More recently, the dramatic effects of ostensibly minor changes in formulation of political and social

[790] In addition to experimental studies discussed in the previous chapter, see Paco Calvo and Toni Gomila, eds., *Handbook of cognitive science: An embodied approach* (Elsevier, 2008), ch. 9.

[791] Patrice Renaud, et al. "Eye-tracking in immersive environments: A general methodology to analyze affordance-based interactions from oculomotor dynamics." *Cyber Psychology & Behavior* 6.5 (2003): 519-526.

[792] For a discussion of cognitive psychology models in analyzing mass media communication see Richard Jackson Harris and Fred W. Sanborn. *A cognitive psychology of mass communication* (Routledge, 2013).

[793] Tversky and Kahneman's classic study revealed the importance of framing of decision prompts (Amos Tversky and Daniel Kahneman. "The framing of decisions and the psychology of choice." *Science* 211.4481 (1981): 453-458. Framing effects are generalized to other attributes in Irwin P. Levin, Sandra L. Schneider, and Gary J. Gaeth. "All frames are not created equal: A typology and critical analysis of framing effects." *Organizational behavior and human decision processes* 76.2 (1998): 149-188. For example, Paul Thibodeau and Lera Boroditsky describe a series of experiments where subjects were asked how they would deal with an increase in crime in a hypothetical city. Crime was framed as either a virus or a ravaging beast in the story, and they interpreted subsequent information about the scenario in ways that matched the metaphorical frame and suggested appropriate solutions (Paul H. Thibodeau and Lera Boroditsky. "Metaphors we think with: the role of metaphor in reasoning." *PloS one* 2.6 (2011): 1).

issues is gaining recognition.[794] The linguistic tools for the analysis of this phenomenon are established, but recognizing the importance of sensorimotor roots of meaning expands their scope in the domain of institutional analysis.

- *Externalization of key conceptual metaphors*. Perhaps the most interesting new methods hail from the organizational studies literature. "Cognitive sculpting" physically instantiates implicit metaphors that organize how individuals understand and relate to their environments (such as the organization they work in) by having them physically construct three dimensional representations of those understandings out of toy objects (strings, light bulbs, keys, containers, toy people, etc.).[795] David Oliver and Johan Roos suggest the approach is effective because it recruits "multiple intelligences": "visual-spatial intelligence through the active creation of new images and constructions, bodily-kinaesthetic intelligence due to the use of the hands in the construction activity, interpersonal intelligence through the process of negotiating identity meanings, as well as linguistic intelligence through the explanations individuals provide for their constructions."[796] For example, Jacobs and Heracleous had executives of a bank "sculpt" the interaction of clients and the bank, which revealed the managers to conceive of bank operations using a machine metaphor which was then explicitly questioned.[797] The use of multiple sensorimotor modalities ensures the semantic elements are invoked no matter their primary encoding, which is especially useful for elements without a direct verbal representation.

---

[794] George Lakoff, *Moral Politics: What Conservatives Know That Liberals Don't* (University Of Chicago Press, 1996); George Lakoff, *Moral politics: How liberals and conservatives think*. (University of Chicago Press, 2010); Thomas E. Nelson, Rosalee A. Clawson, and Zoe M. Oxley. "Media framing of a civil liberties conflict and its effect on tolerance." *American Political Science Review* (1997): 567-583; Brigitte Nerlich. "'Climategate': paradoxical metaphors and political paralysis." *Environmental Values* 19.4 (2010): 419-442.

[795] After the initial construction, there are rounds of integration and resolution of differences between the participants' models and a discussion of what they represent. This approach is elaborated in F. Barrett and D. Cooperrider. "Generative metaphor intervention: a new approach for working with systems divided by conflict and caught in defensive perception." *Journal of Applied Behavioral Science*, 26, pp. 219–239; Peter Bürgi and Johan Roos. "Images of strategy." *European Management Journal* 21.1 (2003): 69-78; Claus D. Jacobs and Loizos Heracleous. "Constructing shared understanding: the role of embodied metaphors in organization development." *The Journal of Applied Behavioral Science* 42.2 (2006): 207-226; Loizos Heracleous and Claus D. Jacobs, "Understanding organizations through embodied metaphors." *Organization Studies* 29.1 (2008): 45-78; John R. Doyle and David Sims, "Enabling strategic metaphor in conversation: A technique of cognitive sculpting for explicating knowledge" in Anne Sigismund Huff and Mark Jenkins, eds., *Mapping strategic knowledge* (Sage, 2002): 63-85.

[796] David Oliver and Johan Roos. "Beyond text: Constructing organizational identity multimodally." *British Journal of Management* 18.4 (2007): 342-358, 351.

[797] Jacobs and Heracleous, "Constructing shared understanding." In fact Oliver and Roos note the connection of the subconscious understandings they bring to light to Giddens' "practical consciousness." ("Beyond text," 354).

III. Implications for field work

In the conclusion of the previous chapter I considered the implications of an embodied theory of semantics and agency for normative democratic theory. The above empirical methods extend the relevance of the theory to a variety practical questions, as I will illustrate with two specific forms of deliberative democracy: the by now familiar assemblies of the Occupy! movement and James Fishkin's "deliberative polls," probably the most widely known form of in-person deliberative democracy.[798] Fishkin and colleagues have ran hundreds of deliberative polls over the past two decades in a variety of settings and formats. Typically, however, these consist of a representative sample of ordinary citizens coming together for several sessions over the course of one or more days. They participate in small group discussions led by trained moderators, intermixed with plenary sessions with relevant experts.[799] Although these sessions typically yield tangible output, such as a list of questions to be submitted to political candidates, the goal of the exercise is both to gauge the *considered* positions of the public for the benefit of political elites (hence the "poll" in the name) and to foster a more informed and engaged electorate.

There has been no shortage of critics of both the overall project of deliberative democracy and Fishkin's model in particular, and replications of his methods by others have produced mixed results.[800] This is to be expected, given the wide variation in parameters of the exercise – for example who participates, who moderates, and who initiates the exercise – and in the metrics evaluated. It is clear that deliberation in itself does not automatically produce positive results on any given measure; in some scenarios it can actually increase political cynicism and polarization in the participants.[801] Some factors that encourage productive discussion can be analyzed at the theoretical level or are already well understood, such as the necessity of a diverse and balanced participant sample with respect to the questions at issue to avoid increasing polarization. But other factors remains elusive.

One such issue that EPT seems particularly competent to address is the degree to which the two forms of deliberation actually promote collective understanding and what

---

[798] Although deliberative polls have not adopted for governance purposes of any major political units in a formal way, this may change in the near future. One notable example is Oregon's Citizens Initiative Review, instituted in 2012, which convenes a deliberative poll-style session to evaluate ballot initiatives. Its conclusions are then included in the official state ballot guide (Elliot Shuford. Interview with Daniel Schugurensky. *The Citizens Initiative Review: "An important contribution to the revitalization of democracy"*, accessed August 2014, Deliberative-democracy.net. http://www.deliberative-democracy.net/index.php/resources/other-shared-resources/doc_download/34-the-oregon-cir-interview-with-elliot-shuford); Katherine R. Knobloch, et al. "Did They Deliberate? Applying an Evaluative Model of Democratic Deliberation to the Oregon Citizens' Initiative Review." *Journal of Applied Communication Research* 41.2 (2013): 105-125).

[799] James S. Fishkin and Robert C. Luskin. "Experimenting with a democratic ideal: Deliberative polling and public opinion." *Acta Politica* 40.3 (2005): 284-298; Bruce A. Ackerman and James S. Fishkin. *Deliberation day* (Yale University Press, 2004).

[800] For a survey of these studies see Dennis F. Thompson, "Deliberative democratic theory and empirical political science." *Annu. Rev. Polit. Sci.* 11 (2008): 497-520; and Fishkin and Luskin, "Experimenting with a democratic ideal."

[801] Mark Button and Kevin Mattson. "Deliberative democracy in practice: Challenges and prospects for civic deliberation." *Polity* (1999): 609-637.

concrete factors most contribute to this outcome. Building deep agreement on salient issues and improving public judgment is usually seen as a major goal of deliberative democracy.[802] Yet most academic studies of actual implementations focus on advances in objective knowledge, as opposed to gains in appreciation of others' perspectives.[803] Those findings, even when positive, tell us little since, as John Street notes, additional data does not automatically improve decisions, "all decisions are ultimately matters of judgment, and the art of judgment may, in fact be hampered by an excess of information."[804] Moreover, even sophisticated analyses of deliberation that take the quality of discourse seriously but look purely at its propositional content are likely to come up wanting.[805] From the perspective of embodied semantics, most substantive disagreements spring from differences in perspectives and conceptual frameworks. But the degree to which such differences are bridged by an activity cannot be readily assessed by tests of objective knowledge or even the types of reasons articulated (as per the discussion of Connolly's objection in the previous chapter). Discourse content alone is also unlikely to reveal success in achieving another important goal of deliberative democracy: building a sense of community and fostering a deliberative civic culture, that is, changing the perspective, background understanding, values, and habits of participants.

The methods detailed above can help address these concerns. Specifically one might augment existing observation by

- Tracking the use of cognitive metaphors and semantic frames among participants, rather than just the level of agreement on specific propositions. This is most simply done through analysis of spoken and written communication of the participants. But object-mediated metaphor externalization would help reveal implicit yet substantial

[802] Occupy is something of an edge case in this respect, as the movement's goals (and thus appropriate metrics of evaluation) were themselves uncertain and contested by participants. Indeed, many participants eschewed concrete goals, as the following representative remark by a participant indicates: "Most of us believe that what is most important is to open space for conversations – for democracy – real, direct, and participatory democracy. Our only demand then would be to be left alone in our plazas, parks, schools, workplaces, and neighborhoods" (Marina Sitrin, "One No, Many Yeses" in Gessen, Keith, and Astra Taylor, eds. *Occupy!: Scenes from Occupied America* (Verso Books, 2011), 8). Yet for others, community building and creating a space for a more democratic society was a conscious goal.

[803] Cynthia Farrar, et al. "Disaggregating deliberation's effects: An experiment within a deliberative poll." *British Journal of Political Science* 40.02 (2010): 333-347; Thompson, "Deliberative democratic theory and empirical political science." James Fishkin, for instance, normally evaluates deliberative polls by information learned by participants and movement on positions.

[804] John Street. "Remote Control? Politics, Technology and Electronic Democracy.'" *European Journal of Communication* 12.1 (1997): 27-42, 31, quoted in Jan Van Dijk. *The network society* (Sage Publications, 2012), 105.

[805] In his discussion of the gap between theoretical and practical literatures on deliberative democracy, Dennis Thompson commends the detailed list of core elements of deliberative democracy distilled by Steenbergen and colleagues in constructing their "discourse quality index": "Level of justification (a reason, conclusion, and link between them), content of justification (appeal to common versus group interest), respect toward groups to be helped (empathy), respect toward the demands of others (articulated regard for an opponent's proposal or argument), respect toward counterarguments (a positive statement about an opponent's argument against one's conclusions), constructive politics (presentation of an alternative or mediating proposal), and participation (absence of interruptions)" (Thompson, "Deliberative democratic theory and empirical political science," 507). But while these metrics capture important aspects of the process, they omit the subjective experience of intelligibility of participants and the underlying semantic schemas, and will likely yield little insight into the causes of disagreement when it occurs.

discrepancies among participants. In the Occupy example diagrammed in Figure 3 in the previous chapter, one might do this to get a sense of the tension between the core value of inclusiveness and organizational efficiency. At least in small groups, such a process can also aid in circumventing extant differences and moving toward agreement.

- Analyzing the physical rhythm of collective activity as a proxy for the strength of shared subjectivity. Recall that a very tangible way that a collective subject is constituted is through physical "dialogical interactions" such dance or even conversation, where the motion of participants are more or less loosely coupled (see section VI of previous chapter). The synchronicity of co-present participants is thus a good indication of social awareness and agreement.

- Studying attention patterns, which can, for example, shed light on how facilitators are actually perceived by participants and reveal effective communicative affordances: What sort of responses do objectionable statements invoke? Do participants readily engage those who sharply disagree with them? And so on.

In the case of Occupy assemblies, these tactics can indicate whether mechanisms such as the "people's mic" do in fact facilitate a genuine consensus as some have suggested, or whether they merely suppress individual will. This approach can also reveal attitudes about the activity on the part of participants of which they themselves may be unaware. Thus, in the case of deliberative poll discussions, participants are expected to view themselves as primary contributors. The above approach should indicate if that is the case or if they are operating on an implicit model of market bargaining or if they see themselves oriented like spokes toward the facilitator's hub.

The detailed investigation of these activities proposed here would also illuminate their internal dynamics: are the activities self-sustaining or dependent on continuous external reinforcement? For instance, should the demise of the Occupy movement across the US in the winter of 2012 be primarily attributed to most assemblies being evicted from the public spaces they were occupying, or were they living on borrowed time, corroded by the internal contradictions in the practice itself? In the case of deliberative polls, does participation in such sessions inspire an appetite for further engagement? Although Fishkin and colleagues report most participants come away more civically and politically engaged and optimistic about deliberation, others find participants may instead become more cynical and/or apathetic.[806] Do these understandings and values translate to similar venues – and if so, how much participation is required for this to occur? The kind of detailed study advocated here can also address the important question of the semantic compatibility of a practice with other related practices and habits. Though rarely mentioned in the theoretical literature, a common aspiration of deliberative democrats in the field is improving governance processes and providing public input to formal

[806] Diana C. Mutz. *Hearing the other side: Deliberative versus participatory democracy* (Cambridge University Press, 2006). The threat of apathy is particularly perverse: if deliberation in fact encourages moderation, as advocates believe, this may remove a powerful incentive to participate – the desire to defend one's distinct position.

authorities.[807] But do the skills and norms cultivated in deliberative poll sessions comport with formal government bodies and processes? Or will they instead generate confusion and conflict in those scenarios?

These are the types of questions that a focus on embodied practices invites us to consider. This account of social action, grounded in cognitive mechanisms, opens a door to an "analytic sociology" that achieves greater insight by unpacking the object of investigation. Of course, a single study cannot singlehandedly put to rest theoretical problem that have dogged the field for decades. Further work that advances both theoretical and applied aspects of the relation between phenomenal agency and semantic structure is required. Nevertheless, in its contention that social reality is better understood if one acknowledges the experience of social actors and the mechanisms underlying that experience, embodied practice theory offers a fruitful new way of approaching this domain.

[807] John Gastil and Peter Levine. *The deliberative democracy handbook: Strategies for effective civic engagement in the twenty-first century* (Jossey-Bass, 2005).

Bibliography

Ackerman, Joshua M., Christopher C. Nocera, and John A. Bargh, "Incidental haptic sensations influence social judgments and decisions", *Science* 328.5986 (2010), 1712-1715.

Ackerman, Bruce A. and James S. Fishkin, *Deliberation Day*, New Haven: Yale University Press, 2004.

Adolphs, Ralph, et al., "A role for somatosensory cortices in the visual recognition of emotion as revealed by three-dimensional lesion mapping", *The Journal of Neuroscience* 20.7 (2000), 2683-2690.

Agarwal, Anant, "More Clicks, Fewer Bricks: The Lecture Hall is Obsolete", Live debate, intelligencesquaredus.org, Intelligence Squared U.S., April 2, 2014.

Ahearn, Laura M., "Language and agency", *Annual Review of Anthropology* 30 (2001), 109-137.

Ainslie, George, "Can thought experiments prove anything about the will", in Don Ross, (ed.), *Distributed Cognition and the Will: Individual Volition and Social Context,* Cambridge: The MIT Press, 2007.

Alesina, Alberto and Edward Ludwig Glaeser, *Fighting Poverty in the US and Europe: A World of Difference Vol. 26,* Oxford: Oxford University Press, 2004.

Alexander, Jeffrey C. and Bernhard Giesen, "From Reduction to Linkage: The Long view of the Micro-Macro Link" in Jeffrey C. Alexander (ed.), *The Micro-Macro Link,* Berkeley: University of California Press, 1987, 1-32.

Alexander, Jeffrey. C., *Fin de Siècle Social Theory: Relativism, Reduction, and the Problem of Reason,* London: Verso, 1995.

Anderson, Michael L., "Embodied cognition: A field guide", *Artificial Intelligence* 149.1 (2003), 91-130.

Anderson, Michael, "On the Grounds of (x)-grounded Cognition", in Paco Calvo and Toni Gomila (eds.), *Handbook of Cognitive Science: An Embodied Approach,* San Diego: Elsevier, 2008.

Anderson, Michael L., "Neural reuse: A fundamental organizational principle of the brain", *Behavioral and Brain Sciences* 33.4 (2010), 245-313.

Ansburg, Pamela I. and Katherine Hill, "Creative and analytic thinkers differ in their use of attentional resources", *Personality and Individual Differences* 34.7 (2003), 1141-1152.

Appiah, Kwame Anthony, *Cosmopolitanism: Ethics in a World of Strangers,* New York: Norton, 2006.

Archer, Margaret, *Culture and Agency,* Cambridge: Cambridge University Press, 1988.

Archer, Margaret Scotford, *Structure, Agency and the Internal Conversation*, Cambridge: Cambridge University Press, 2003.

Archer, Margaret S., "Routine, Reflexivity, and Realism", *Sociological Theory* 28.3 (2010), 272-303.

Arendt, Hannah, *Life of the Mind, vol. 2: Willing,* New York: Harcourt Brace Jovanovich, 1978.

Arendt, Hannah, *The Human Condition*, Chicago: University of Chicago Press, 2013.

Auliciems, A., "Towards a psycho-physiological model of thermal perception", *International Journal of Biometeorology* 25.2 (1981), 109-122.

Austen-Smith, David, "Strategic models of talk in political decision making", *International Political Science Review* 13.1 (1992), 45-58.

Avenanti, Alessio, et al., "Transcranial magnetic stimulation highlights the sensorimotor side of empathy for pain", *Nature Neuroscience* 8.7 (2005), 955-960.

Badhwar, Neera K., "Moral Agency, Commitment, and Impartiality", *Social Philosophy and Policy* 13 (1996), 1-26.

Banting, Keith and Will Kymlicka (eds.), *Multiculturalism and the Welfare State: Recognition and Redistribution in Contemporary Democracies*, Oxford: Oxford University Press, 2006.

Bargh, John A., Mark Chen, and Lara Burrows, "Automaticity of social behavior: Direct effects of trait construct and stereotype activation on action", *Journal of Personality and Social Psychology* 71.2 (1996), 230-.

Bargh, John A. and Tanya L. Chartrand, "The unbearable automaticity of being", *American Psychologist* 54.7 (1999), 462.

Bargh, John A., et al., "The automated will: nonconscious activation and pursuit of behavioral goals", *Journal of Personality and Social Psychology* 81.6 (2001), 1014-1027.

Barnett, Susan M. and Stephen J. Ceci, "When and where do we apply what we learn?: A taxonomy for far transfer", *Psychological Bulletin* 128.4 (2002), 612-637.

Baron-Cohen, Simon, *Mindblindness: An Essay on Autism and Theory of Mind*, Cambridge: The MIT press, 1997.

Barrett, F. and D. Cooperrider, "Generative metaphor intervention: a new approach for working with systems divided by conflict and caught in defensive perception", *Journal of Applied Behavioral Science* 26 (1990), 219–239.

Barry, Brian, *Culture and Equality: An Egalitarian Critique of Multiculturalism*, New York: John Wiley & Sons, 2014 [2001]).

Barsalou, Lawrence W., "Perceptual symbol systems", *Behavioral and Brain Sciences* 22.04 (1999), 577-660.

Barsalou, Lawrence, "Situated simulation in the human conceptual system", *Language and Cognitive Processes* 18.5-6 (2003), 513-562.

Barsalou, Lawrence W., "Grounded cognition", *Annual Review of Psychology* 59 (2008), 617-645.

Barsalou, Lawrence W. and Katja Wiemer-Hastings, "Situating abstract concepts", *Grounding Cognition: The Role of Perception and Action in Memory, Language, and Thought* (2005), 129-163.

Barsalou, Lawrence W., et al., "Grounding conceptual knowledge in modality-specific systems", *Trends in Cognitive Sciences* 7.2 (2003), 84-91.

Barsalou, Lawrence W., et al., "Multimodal simulation in conceptual processing", in W. Ahn, R. Goldstone, B. Love, A. Markman, & P. Wolff (eds.), *Categorization Inside and Outside the Lab: Festschrift in Honor of Douglas L. Medin*, Washington, DC: American Psychological Association, 2005, 249-270.

Baumeister, Roy F., Mark Muraven, and Dianne M. Tice, "Ego depletion: A resource model of volition, self-regulation, and controlled processing", *Social cognition* 18.2 (2000): 130-150.

Bayne, Tim and Michelle Montague (eds.), *Cognitive Phenomenology*, Oxford: Oxford University Press, 2011.

Bednarek, Monika A., "Frames revisited—the coherence-inducing function of frames", *Journal of Pragmatics* 37.5 (2005), 685-705.

Benhabib, Seyla, "Feminism and Postmodernism", in Seyla Benhabib et al. (eds.), *Feminist Contentions,* New York: Routledge, 1995.

Berard, Tim J., "Rethinking practices and structures", *Philosophy of the Social Sciences* 35.2 (2005), 196-230.

Besson, Samantha and José Luis Martí (eds.), *Deliberative Democracy and its Discontents* Aldershot: Ashgate Publishing, Ltd., 2006.

Bevir, Mark, *The Logic of the History of Ideas*, Cambridge: Cambridge University Press, 1999.

Bevir, Mark, "The Construction and Use of the Past: A Reply to Critics", *History of the Human Sciences* 15.2 (2002), 126-133.

Bevir, Mark, "Governance and interpretation: what are the implications of postfoundationalism?", *Public Administration* 82.3 (2004), 605-625.

Bevir, Mark, "Political studies as narrative and science, 1880–2000", *Political Studies* 54.3 (2006), 583-606.

Bevir, Mark, *Democratic Governance,* Princeton: Princeton University Press, 2010.

Bevir, Mark and R. A. W. Rhodes, "Interpretation and its Others", *Australian Journal of Political Science* 40.2 (2005), 169-187.

Bevir, Mark and Roderick A.W. Rhodes, "Defending Interpretation", *European Political Science* 5.1 (2006), 69-83.

Bevir, Mark and R. A. W. Rhodes, "Disaggregating Structures as an Agenda for Critical Realism: a Reply to McAnulla", *British Politics* 1.3 (2006), 397-403.

Biederman, Irving, Robert J. Mezzanotte, and Jan C. Rabinowitz, "Scene perception: Detecting and judging objects undergoing relational violations", *Cognitive Psychology* 14.2 (1982), 143-177.

Biernacki, Richard, *The Fabrication of Labor,* Berkeley: University of California Press, 1995.

Bigelow, Ann E., "The development of joint attention in blind infants", *Development and Psychopathology* 15.2 (2003), 259-275.

Binder, Jeffrey R., et al., "Where is the semantic system? A critical review and meta-analysis of 120 functional neuroimaging studies", *Cerebral Cortex* 19.12 (2009), 2767-2796.

Blass, Thomas, "The Milgram Paradigm After 35 Years: Some Things We Now Know About Obedience to Authority", *Journal of Applied Social Psychology* 29.5 (1999), 955-978.

Bloemraad, Irene, Anna Korteweg, and Gökçe Yurdakul, "Citizenship and immigration: Multiculturalism, assimilation, and challenges to the nation-state", *Sociology* 34.1 (2008), 153-179.

Boden, Margaret A., "Computer models of creativity", *AI Magazine* 30.3 (2009), 23-34.

Boroditsky, Lera, "Does language shape thought?: Mandarin and English speakers' conceptions of time", *Cognitive Psychology* 43.1 (2001), 1-22.

Boroditsky, Lera and Michael Ramscar, "The roles of body and mind in abstract thought", *Psychological Science* 13.2 (2002), 185-189.

Boroditsky, Lera, Orly Fuhrman, and Kelly McCormick, "Do English and Mandarin speakers think about time differently?", *Cognition* 118.1 (2011), 123-129.

Boudon, Raymond, "The Individualistic Tradition in Sociology", in Jeffrey C. Alexander (ed.), *The Micro-Macro Link,* Berkeley: University of California Press, 1987, 1-32.

Boudon, Raymond, "Social Mechanisms without Black Boxes", in Peter Hedstrom and Richard Swedberg (eds.), *Social Mechanisms: An Analytical Approach to Social Theory,* Cambridge: Cambridge University Press, (1998).

Boulenger, Véronique, et al., "Cross-talk between language processes and overt motor behavior in the first 200 msec of processing", *Journal of Cognitive Neuroscience* 18.10 (2006), 1607-1615.

Bourdieu, Pierre, *Outline of a Theory of Practice,* Cambridge: Cambridge University Press, 1977.

Bourdieu, Pierre, *The Logic of Practice*, Stanford: Stanford University Press, 1990.

Bourdieu, Pierre, *Practical Reason: On the Theory of Action*, Stanford: Stanford University Press, 1998.

Bourdieu, Pierre and Loïc JD Wacquant, *An invitation to reflexive sociology*, Chicago: University of Chicago Press, 1992.

Bowers, Kenneth S., et al., "Intuition in the context of discovery", *Cognitive Psychology* 22.1 (1990), 72-110.

Bransford, John D., *Human Cognition: Learning, Understanding and Remembering*, Belmont: Wadsworth, 1979.

Bransford, J. D., A. Brown, and R. Cocking. "How People Learn: Mind, Brain, Experience, and School." Washington, DC: National Research Council, 1999.

Brass, Marcel, et al., "Investigating action understanding: inferential processes versus action simulation", *Current Biology* 17.24 (2007), 2117-2121.

Brauchler, Birgit and John Postill (eds.), *Theorising Media and Practice Vol. 4*, New York: Berghahn Books, 2010.

Brodu, Nicolas, “A synthesis and a practical approach to complex systems”, *Complexity* 15.1 (2009), 36-60.

Brooks, Rodney A., “Elephants don't play chess”, *Robotics and Autonomous Systems* 6.1 (1990), 3-15.

Brown, John Seely, Allan Collins, and Paul Duguid, “Situated cognition and the culture of learning”, *Educational Researcher* 18.1 (1989), 32-42.

Brown, John Seely and Paul Duguid, “Organizational learning and communities-of-practice: Toward a unified view of working, learning, and innovation”, *Organization Science* 2.1 (1991): 40-57.

Brown, John et al., “Situated Cognition and the Culture of Learning”, *Educational Researcher* 18 (1989), 32-42.

Brubaker, Rogers. “Rethinking classical theory: The sociological vision of Pierre Bourdieu”, *Theory and Society* 14 (1985): 745-775.

Brubaker, Rogers, Mara Loveman, and Peter Stamatov, “Ethnicity as cognition”, *Theory and Society* 33.1 (2004), 31-64.

Buccino, Giovanni, et al., “Action observation activates premotor and parietal areas in a somatotopic manner: an fMRI study”, *European Journal of Neuroscience* 13.2 (2001), 400-404.

Buccino, Giovanni, et al. “Neural circuits involved in the recognition of actions performed by nonconspecifics: An fMRI study”, *Journal of Cognitive Neuroscience* 16.1 (2004), 114-126.

Budd, Malcolm, *Wittgenstein's Philosophy of Psychology*, London: Routledge, 1989.

Bürgi, Peter and Johan Roos, “Images of strategy”, *European Management Journal* 21.1 (2003), 69-78.

Burns, Tom, “Two Conceptions of Human Agency: Rational Choice Theory and the Social Theory of Action”, in Peter Sztompka (ed.), *Agency and Structure: Reorienting Social Theory*, New York: Routledge, 1994, 197-249.

Butler, Judith, “For a careful reading”, in Seyla Benhabib et al. (eds.), New York: Routledge 1995.

Buttelmann, David, Malinda Carpenter, and Michael Tomasello, “Eighteen-month-old infants show false belief understanding in an active helping paradigm”, *Cognition* 112.2 (2009), 337-342.

Button, Mark and Kevin Mattson, “Deliberative democracy in practice: Challenges and prospects for civic deliberation”, *Polity* (1999), 609-637.

Byrne, Alex, “Intentionalism defended”, *Philosophical Review* (2001), 199-240.

Cacioppo, John T., Joseph R. Priester, and Gary G. Berntson, “Rudimentary determinants of attitudes: II. Arm flexion and extension have differential effects on attitudes”, *Journal of Personality and Social Psychology* 65.1 (1993), 5-.

Calhoun, Craig, “Habitus, Field, and Capital: The Question of Historical Specificity”, in Pierre Félix Bourdieu, et al. (eds.), *Bourdieu: Critical Perspectives*, Chicago: University of Chicago Press, 1993.

Calvo, Paco and Toni Gomila (eds.), *Handbook of Cognitive Science: An Embodied Approach* (Elsevier, 2008), ch. 9.

Calvo-Merino, B., et al., "Action observation and acquired motor skills: an fMRI study with expert dancers", *Cerebral Cortex* 15 (2005), 1243–1249.

Campbell, John, "Joint attention and common knowledge", in Naomi M. Eilan, Christoph Hoerl, Teresa McCormack & Johannes Roessler (eds.) *Joint Attention: Communication and Other Minds*, Oxford: Clarendon Press, 2005, 287-297.

Canovan, Margaret, "Patriotism is not enough", *British Journal of Political Science* 30.03 (2000), 413-432.

Carlson, Richard A., "Conscious Intentions in the Control of Skilled Mental Activity", *The Psychology of Learning and Motivation* 41 (2002), 191-228.

Carruthers, Peter and Bénédicte Veillet, "The phenomenal concept strategy", *Journal of Consciousness Studies* 14.9-10 (2007), 212-236.

Carter, Ronald, *Language and Creativity: The Art of Common Talk*, New York: Routledge, 2004.

Casasanto, Daniel, "Similarity and Proximity: When Does Close in space mean Close in mind?", *Memory & Cognition* 36.6 (2008), 1047-1056.

Casasanto, Daniel, "Embodiment of abstract concepts: good and bad in right-and left-handers", *Journal of Experimental Psychology: General* 138.3 (2009), 351-.

Casasanto, Daniel and Lera Boroditsky, "Time in the mind: Using space to think about time", *Cognition* 106.2 (2008), 579-593.

Cetina, Karin Knorr, Theodore R. Schatzki, and Eike Von Savigny (eds.), *The Practice Turn in Contemporary Theory,* New York: Routledge, 2000.

Chalmers, David J., *The Conscious Mind: In Search of a Fundamental Theory*, Oxford: Oxford University Press, 1996.

Chao, Linda L. and Alex Martin, "Representation of manipulable man-made objects in the dorsal stream", *Neuroimage* 12.4 (2000), 478-484.

Chartrand, Tanya L. and John A. Bargh, "The chameleon effect: The perception–behavior link and social interaction", *Journal of Personality and Social Psychology* 76.6 (1999), 893-910.

Chi, Michelene T. H., "Creativity: Shifting across ontological categories flexibly", in Ward, Thomas B., Steven M. Smith, and Jyotsna Vaid (eds.), *Creative Thought: An Investigation of Conceptual Structures and Processes,* American Psychological Association, 1997.

Chugh, Dolly, and Max H. Bazerman, "Bounded awareness: What you fail to see can hurt you", *Mind & Society* 6.1 (2007), 1-18.

Clark, Andy, *Being There: Putting Brain, Body, and World Together Again,* Cambridge: MIT press, 1998.

Clark, Andy, "An embodied cognitive science?", *Trends in Cognitive Sciences* 3.9 (1999), 345-351.

Cleary, Anne M., "Recognition memory, familiarity, and déjà vu experiences", *Current Directions in Psychological Science* 17.5 (2008), 353-357.

Clemens, Elisabeth S., and James M. Cook, "Politics and institutionalism: Explaining durability and change", *Annual Review of Sociology* (1999), 441-466.

Clements, Wendy A. and Josef Perner, "Implicit understanding of belief", *Cognitive Development* 9.4 (1994), 377-395.

Collins, Randall, "On the microfoundations of macrosociology", *American Journal of Sociology* 86.5 (1981): 984-1014.

Condoor, Sridhar S., Harvey R. Brock, and Christian P. Burger, "Innovation through early recognition of critical design parameters", *Meeting of the American Society for Engineering Education,* Urbana, IL, 1993.

Connolly, William E., "A critique of pure politics", *Philosophy & Social Criticism* 23.5 (1997), 1-26.

Connolly, William E., *Neuropolitics: Thinking, Culture, Speed*, Minneapolis: University of Minnesota Press, 2002.

Cook, Guy, *Discourse and Literature: The Interplay of Form and Mind,* Oxford: Oxford University Press, 1994.

Corballis, Michael C., "The Evolution of Language: From Hand to Mouth", *Evolutionary Cognitive Neuroscience* (2007), 403.

Corteen, R. S. and B. Wood, "Autonomic responses to shock-associated words in an unattended channel", *Journal of Experimental Psychology* 94.3 (1972).

Cosmides, Leda and John Tooby, "Origins of domain specificity: The evolution of functional organization", *Mapping the Mind: Domain Specificity in Cognition and Culture* (1994), 85-116.

Coulter, Jeff, "Human Practices and the Observability of the 'macro-social'", in Karin Knorr Cetina, Theodore R. Schatzki, and Eike Von Savigny (eds.), *The Practice Turn in Contemporary Theory,* London: Routledge, 2001, 37-49.

Crane, Tim, "Intentionalism", in Brian McLaughlin, Ansgar Beckermann, and Sven Walter, (eds.), *The Oxford Handbook of Philosophy of Mind*, Oxford: Oxford University Press, 2009.

Cross, E. S., A. F. Hamilton, & S. T. Grafton, "Building a motor simulation *de novo*: observation of dance by dancers", *Neuroimage* 31 (2006), 1257–1267

Crossley, Nick, "The phenomenological habitus and its construction", *Theory and Society* 30.1 (2001), 81-120.

Dahl, Robert Alan, *Democracy and its Critics*, New Haven, Yale University Press, 1991.

Dainton, Barry F., "Time in experience: reply to Gallagher", Psyche 9.10 (2003).

Damasio, Antonio R., "The brain binds entities and events by multiregional activation from convergence zones", *Neural Computation* 1.1 (1989), 123-132.

Damasio, Antonio**,** *Descartes' Error,* New York: Putnam, 1994.[1]

Damasio, Antonio, *Self Comes to Mind: Constructing the Conscious Brain*, New York: Random House, 2012.

Darley, John M. and Daniel C. Batson, "From Jerusalem to Jericho: A study of situational and dispositional variables in helping behavior", *Journal of Personality and Social Psychology* 27.1 (1973), 100-108.

Davidson, Donald, "Actions, Reasons, and Causes", *Journal of Philosophy* 60 (1963), 685–700.

Dawe, Alan, "The two sociologies", *British Journal of Sociology* 21.2 (1970), 207-218.

Dawkins, Richard, *The Blind Watchmaker: Why the Evidence of Evolution Reveals a Universe Without Design*, New York: WW Norton & Company, 1996.

de Gelder, Béatrice, et al., "Non-conscious recognition of affect in the absence of striate cortex", *Neuroreport* 10.18 (1999), 3759-3763.

Deacon, Terrence W., "The hierarchic logic of emergence: Untangling the interdependence of evolution and self-organization", Bruce H. Weber and David J. Depew (eds.), *Evolution and Learning: The Baldwin Effect Reconsidered*, Cambridge: The MIT Press, 2003, 273-308.

Dębiec, J. and J. E. Ledoux, "Disruption of reconsolidation but not consolidation of auditory fear conditioning by noradrenergic blockade in the amygdala", *Neuroscience* 129.2 (2004), 267-272.

Dennett, Daniel C., "Real patterns", *The Journal of Philosophy* 88.1 (1991), 27-51.

Dennett, Daniel C., *Consciousness Explained*, Boston: Little, Brown and Co., 1993.

Dennett, Daniel C., "The Self as a Responding — and Responsible — artifact", *Annals of the New York Academy of Sciences* 1001.1 (2003), 39-50.

Denzin, Norman K., *Symbolic Interactionism and Cultural Studies: The Politics of Interpretation,* Oxford: Blackwell, 1992.

Derrida, Jacques, *Positions*, trans. Alan Bass, Chicago: Chicago University Press, 1981.

Derrida, Jacques, *Declarations in Negotiations: Interventions and Interviews 1971 – 2001*, Elizabeth Rottenberg (ed.), Stanford: Stanford University Press, 2002.

Desai, Rutvik H., et al., "Activation of sensory–motor areas in sentence comprehension", *Cerebral Cortex* 20.2 (2010), 468-478.

Dewey, John, *Human Nature and Conduct: An Introduction to Social Psychology,* New York: Carlton house, 1922.

Dietrich, Arne and Riam Kanso, "A review of EEG, ERP, and neuroimaging studies of creativity and insight", *Psychological Bulletin* 136.5 (2010): 822-848.

Dijk, Jan Van, *The Network Society*, London: Sage Publications, 2012.

DiMaggio, Paul, "Culture and cognition", *Annual Review of Sociology* 23.1 (1997), 263-287.

Disessa, Andrea A. and Bruce L. Sherin, "What changes in conceptual change?", *International Journal of Science Education* 20.10 (1998), 1155-1191.

Dobbin, Frank, *Forging Industrial Policy: The United States, Britain, and France in the Railway Age*, Cambridge: Cambridge University Press, 1997.

Dokic, J., "Affordances and the Sense of Joint Agency", in Michela Balconi, *Neuropsychology of the Sense of Agency: From Consciousness to Action,* New York: Springer-Verlag Publishing, 2010, 23-43.

Domanska, Ewa. "The material presence of the past", *History and Theory* 45.3 (2006), 337-348.

Donald, M., *Origins of the Modern Mind: Three Stages in the Evolution of Culture and Cognition*, Cambridge: Harvard University Press, 1991.

Downey, Greg, "'Practice without theory': a neuroanthropological perspective on embodied learning", *Journal of the Royal Anthropological Institute* 16.s1 (2010), S22-S40.

Doyle, John R. and David Sims, "Enabling strategic metaphor in conversation: A technique of cognitive sculpting for explicating knowledge", in Anne Sigismund Huff and Mark Jenkins (eds.), *Mapping Strategic Knowledge,* London: Sage, 2002, 63-85.

Dretske, Fred, "Phenomenal Externalism or If Meanings Ain't in the Head, Where Are Qualia?", *Philosophical Issues* 7 (1996), 143-158.

Dreyfus, Hubert L., *Being-in-the-world: A commentary on Heidegger's Being and Time, Division I*, Cambridge: The MIT Press, 1991.

Dreyfus, Hubert L., *What Computers Still Can't do: A Critique of Artificial Reason,* Cambridge: The MIT press, 1992.

Dreyfus, Hubert L., "A Merleau-Pontyian Critique of Husserl's and Searle's Representationalist Accounts of Action", *Proceedings of the Aristotelian Society* 100.1 (2000).

Dreyfus, Hubert L., "Intelligence without Representation – Merleau-Ponty's critique of mental representation the relevance of phenomenology to scientific explanation", *Phenomenology and the Cognitive Sciences* 1.4 (2002), 367-383.

Dreyfus, Hubert L., "Refocusing the question: Can there be skillful coping without propositional representations or brain representations?", *Phenomenology and the Cognitive Sciences* 1.4 (2002), 413-425.

Dreyfus, Hubert, "Detachment, Involvement, and Rationality: are we Essentially Rational Animals?", *Human Affairs* 2 (2007), 101-109.

Dreyfus, Hubert L., "Reply to Romdenh-Romluc", in Thomas Baldwin (ed.), *Reading Merleau-Ponty: On Phenomenology of Perception,* London: Routledge, 2007.

Dreyfus, Hubert L. and Stuart E. Dreyfus, "Making a mind versus modeling the brain: Artificial intelligence back at a branchpoint", *Daedalus* 117 (1988), 15-43.

Dreyfus, Hubert L. and Stuart E. Dreyfus, "The challenge of Merleau-Ponty's phenomenology of embodiment for cognitive science", in Gail Weiss and Honi Fern Haber (eds.), *Perspectives on Embodiment: The Intersections of Nature and Culture*, New York: Routledge (1999): 103-120.

Dreyfus, Hubert L. and Stuart E. Dreyfus, "Peripheral Vision Expertise in Real World Contexts", *Organization Studies* 26.5 (2005), 779-792.

Duhigg, Charles, *The Power of Habit: Why We Do What We Do in Life and Business,* New York: Random House, 2012.

Dumont, Louis, *Homo Hierarchicus: The Caste System and its Implications*, Chicago: University of Chicago Press, 1980.

Dunbar, Kevin, "How Scientists Think: On-Line Creativity and Conceptual Change in Science" in Thomas B. Ward,, Steven M. Smith, and Jyotsna Vaid (eds.), *Creative Thought: An Investigation of Conceptual Structures and Processes,* American Psychological Association, 1997.

Dworkin, Ronald, *A Matter of Principle,* London: Oxford University Press, 1985.

Ebbesen, Sten "The Odyssey of Semantics from the Stoa to Buridan", in Achim Eschbach and Jürgen Trabant (eds.), *History of Semiotics Vol. 7,* Amsterdam: John Benjamins Publishing, 1983.

Edsger, Dijkstra, "Letters to the editor: go to statement considered harmful", *Communications of the ACM* 11.3 (1968), 147-148.

Ekman, Paul, *Darwin and Facial Expression: A Century of Research in Review*, New York: Academic Press, 1973.

Ekman, Paul, et al., "Universals and cultural differences in the judgments of facial expressions of emotion", *Journal of Personality and Social Psychology* 53.4 (1987), 712-717.

Elster, Jon, "The market and the forum: three varieties of political theory", in James Bohman, (ed.), *Deliberative Democracy: Essays on Reason and Politics,* Cambridge: The MIT press, 1997, 3-34.

Elster, Jon, "A Plea for Mechanisms", in Peter Hedstrom and Richard Swedberg (eds.), *Social Mechanisms: An Analytical Approach to Social Theory,* Cambridge: Cambridge University Press, 1998, 45-73.

Emirbayer, Mustafa and Ann Mische, "What is agency?", *American journal of sociology* 103.4 (1998), 962-1023.

Ermath, E. D., "Agency in the discursive condition", in Gabrielle Spiegel (ed.), *Practicing History*, New York: Routledge, 2005.

Falleti, Tulia G. and Julia F. Lynch, "Context and causal mechanisms in political analysis", *Comparative Political Studies* 42.9 (2009), 1143-1166.

Farrar, Cynthia et al., "Disaggregating deliberation's effects: An experiment within a deliberative poll", *British Journal of Political Science* 40.02 (2010), 333-347.

Fauconnier, Gilles and Mark Turner, *The Way we Think: Conceptual Blending and the Mind's Hidden Complexities,* New York: Basic Books, 2003.

Fauconnier, Gilles and Mark B. Turner, "Rethinking metaphor", in Ray Gibbs (ed.), *Cambridge Handbook of Metaphor and Thought,* New York: Cambridge University Press, 2008.

Feldman, Jerome A., *From Molecule to Metaphor: A Neural Theory of Language*, Cambridge: The MIT Press, 2006.

Feldman, Martha S., "A performative perspective on stability and change in organizational routines", *Industrial and Corporate Change* 12.4 (2003), 727-752.

Feldman, Martha S. and Brian T. Pentland, "Reconceptualizing organizational routines as a source of flexibility and change", *Administrative Science Quarterly* 48.1 (2003), 94-118.

Fishkin, James and Peter Laslett (eds.), *Debating Deliberative Democracy*, New York: John Wiley & Sons, 2008.

Fishkin, James S. and Robert C. Luskin, "Experimenting with a democratic ideal: Deliberative polling and public opinion", *Acta Politica* 40.3 (2005), 284-298.

Fitzhugh, M. L. and W. H. Leckie, "Agency, Postmodernism, and the Causes of Change", *History and Theory* 40 (2002), 59-81.

Flanagan, J. Randall and Roland S. Johansson, "Action plans used in action observation", *Nature* 424.6950 (2003), 769-771.

Flusberg, Stephen J., et al., "A connectionist approach to embodied conceptual metaphor", *Frontiers in Psychology* 1 (2010).

Fodor, Jerry A., *The Language of Thought*, Cambridge: Harvard University Press, 1975

Fodor, Jerry, *The Mind Doesn't Work that Way: The Scope and Limits of Computational Psychology*, Cambridge: The MIT Press, 2000.

Fodor, Jerry A. and Zenon W. Pylyshyn, "Connectionism and cognitive architecture: A critical analysis", *Cognition* 28.1 (1988), 3-71.

Fogassi, Leonardo, et al., "Parietal lobe: from action organization to intention understanding", *Science* 308.5722 (2005), 662-667.

Førland, Tor Egil, "Mentality as a Social Emergent: Can the Zeitgeist Have Explanatory Power?", *History and Theory* 47.1 (2008), 44-56.

Förster, Jens and Fritz Strack, "Influence of overt head movements on memory for valenced words: A case of conceptual-motor compatibility", *Journal of Personality and Social Psychology* 71.3 (1996), 421-.

Forster, Peter M. and Ernest Govier, "Discrimination without awareness?", *The Quarterly Journal of Experimental Psychology* 30.2 (1978), 289-295.

Fourcade, Marion, "The Problem of embodiment in the Sociology of Knowledge: afterword to the Special issue on Knowledge in Practice", *Qualitative Sociology* 33.4 (2010): 569-574.

Fox, Nik Farrell, *The New Sartre: Explorations in Postmodernism,* London: Continuum, 2003.

Frankfurt, Harry, *The Importance of What We Care About*, Cambridge: Cambridge University Press, 1988.

Freeman, Walter J., "The Physiology of Perception", *Scientific American* 264.2 (1991), 78-85.

Frie, Roger, "Situated Experience: Psychological Agency, Meaning, and Morality in Worldly Contexts", *International Journal of Psychoanalytic Self Psychology* 6.3 (2011), 340-351.

Gainotti, Guido, "A metanalysis of impaired and spared naming for different categories of knowledge in patients with a visuo-verbal disconnection", *Neuropsychologia* 42.3 (2004).

Gallagher, Shaun, *How the Body Shapes the Mind*, Oxford: Clarendon Press, 2005.

Gallagher, Shaun, "Where's the action? Epiphenomenalism and the problem of free will", in Susan Pockett, William P. Banks, and Shaun Gallagher (eds.), *Does Consciousness Cause Behavior* Cambridge: The MIT Press (2006), 109-124.

Gallese, Vittorio, "The manifold nature of interpersonal relations: the quest for a common mechanism", *Philosophical Transactions of the Royal Society of London* 358.1431 (2003), 517-528.

Gallese, Vittorio, "Motor abstraction: a neuroscientific account of how action goals and intentions are mapped and understood", *Psychological Research* 73.4 (2009), 486-498.

Gallese, Vittorio and Alvin Goldman, "Mirror neurons and the simulation theory of mind-reading", *Trends in Cognitive Sciences* 2.12 (1998), 493-501.

Gallese, Vittorio and George Lakoff, "The brain's concepts: The role of the sensory-motor system in conceptual knowledge", *Cognitive Neuropsychology* 22.3-4 (2005), 455-479.

Gallese, Vittorio, et al., "Action recognition in the premotor cortex", *Brain* 119.2 (1996), 593-609.

Garfinkel, Harold, *Studies in Ethnomethodology,* New York: Wiley, 1991.

Gastil, John and Peter Levine, *The Deliberative Democracy Handbook: Strategies for Effective Civic Engagement in the Twenty-First Century*, San Francisco, Jossey-Bass, 2005.

Gentner, Dedre et al., "Analogy and Creativity in the Works of Johannes Kepler" in Thomas B. Ward, Steven M. Smith, and Jyotsna Vaid (eds.), *Creative Thought: An Investigation of Conceptual Structures and Processes,* American Psychological Association, 1997.

Gerlach, Christian, Ian Law, and Olaf B. Paulson., "When action turns into words. Activation of motor-based knowledge during categorization of manipulable objects", *Journal of Cognitive Neuroscience* 14.8 (2002), 1230-1239.

Gerring, John, "The mechanismic worldview: Thinking inside the box", *British Journal of Political Science* 38.01 (2008), 161-179.

Gherardi, S., "Knowing and learning in practice-based studies: an introduction", *The Learning Organization* 16 (2009), 352-359.

Gibbs, Raymond W. Jr., *The Poetics of Mind: Figurative Thought, Language, and Understanding*. Cambridge: Cambridge University Press, 1994.

Gibbs, Raymond W. "Embodied experience and linguistic meaning", *Brain and Language* 84.1 (2003), 1-15.

Gibbs, Raymond W. Jr., *Embodiment and Cognitive Science,* Cambridge: Cambridge University Press, 2005.

Gibbs, Raymond W., Paula Lenz Costa Lima, and Edson Francozo, "Metaphor is grounded in embodied experience", *Journal of Pragmatics* 36.7 (2004), 1189-1210.

Gibson, J. J., "The concept of affordances", *Perceiving, Acting, and Knowing* (1977), 67-82.

Gibson, James J., *The Ecological Approach to Visual Perception*, Mahwah: Lawrence Erlbaum, 1986.

Giddens, Anthony, *Central Problems in Social Theory: Action, Structure and Contradictions in Social Analysis*, Berkeley: University of California Press, 1979.

Giddens, Anthony, *The Constitution of Society: Introduction of the Theory of Structuration* Berkeley: University of California Press, 1984.

Giddens, Anthony, *New Rules of Sociological Method: A Positive Critique of Interpretive Sociologies*, Stanford: Stanford University Press, 1993 [1976].

Gil-White, Francisco J., "Are ethnic groups biological "species" to the human brain?", *Current Anthropology* 42.4 (2001), 515-553.

Gitlin, Todd, *Occupy Nation: The Roots, the Spirit, and the Promise of Occupy Wall Street,* New York: Itbooks, 2012.

Glenberg, Arthur M., and David A. Robertson, "Symbol grounding and meaning: A comparison of high-dimensional and embodied theories of meaning", *Journal of Memory and Language* 43.3 (2000), 379-401.

Glenberg, Arthur M. and Michael P. Kaschak, "Grounding language in action", *Psychonomic Bulletin & Review* 9.3 (2002), 558-565.

Glock, Friedrich, "Design tools and framing practices." *Computer Supported Cooperative Work (CSCW)* 12.2 (2003), 221-239.

Goldin-Meadow, Susan, "The role of gesture in communication and thinking", *Trends in Cognitive Sciences* 3.11 (1999), 419-429.

Goldman, Alvin I., "In defense of the simulation theory", *Mind & Language* 7.1 (2007), 104-119.

Gopnik, Alison, Andrew N. Meltzoff, and Peter Bryant, *Words, Thoughts, and Theories,* Cambridge: The MIT Press, 1997.

Goschke, Thomas, "Voluntary action and cognitive control from a cognitive neuroscience perspective", in Sabine Maasen, Wolfgang Prinz, and Gerhard Roth (eds.), *Voluntary Action: Brains, Minds, and Sociality*, Oxford: Oxford University Press, 2003.

Grady, Joseph, Sarah Taub, and Pamela Morgan, "Primitive and compound metaphors", in Adele E. Goldberg (ed.), *Conceptual Structure, Discourse and Language,* Stanford: CSLI Publications, 1996, 177-187.

Groeger, J. A., "Evidence of unconscious semantic processing from a forced error situation", *British Journal of Psychology* 75.3 (1984), 305-314.

Gross, Neil, "A pragmatist theory of social mechanisms", *American Sociological Review* 74.3 (2009), 358-379.

Gunnell, John G., "Are we losing our minds? Cognitive science and the study of politics", *Political Theory* 35.6 (2007), 704-731.

Gutmann, Amy and Dennis Thompson, "Why deliberative democracy is different", *Social Philosophy and Policy* 17.01 (2000): 161-180.

Habermas, Jürgen, *The Theory of Communicative Action*, Boston: Beacon press, 1989.

Hague, Dan and Douglas Hunter, *The Self-Coached Climber*, Mechanicsburg: Stackpole Books, 2006.

Hall, Peter A. and Rosemary Taylor, "Political science and the three new institutionalisms", *Political Studies* 44.5 (1996), 936-957.

Hamilton, H. and E. Cairns (eds.), *The Collected Works of Plato,* Princeton: Princeton University Press, 1980, 41-67.

Hargreaves, Tom, "Practice-ing behaviour change: Applying social practice theory to pro-environmental behaviour change", *Journal of Consumer Culture* 11.1 (2011), 79-99.

Hark, Michel Ter, "Coloured vowels: Wittgenstein on synaesthesia and secondary meaning", *Philosophia* 37.4 (2009), 589-604.

Harnad, Stevan, "The symbol grounding problem", *Physica D* 42 (1990), 335–346.

Harris, Richard Jackson and Fred W. Sanborn, *A Cognitive Psychology of Mass Communication*, New York: Routledge, 2013.

Hauk, Olaf, Ingrid Johnsrude, and Friedemann Pulvermüller. "Somatotopic representation of action words in human motor and premotor cortex", *Neuron* 41.2 (2004), 301-307.

Hay, Colin and Daniel Wincott, "Structure, Agency and Historical Institutionalism", *Political studies* 46.5 (1998), 951-957.

Hayward, Clarissa Rile, "What can political freedom mean in a multicultural democracy? On deliberation, difference, and democratic governance", *Political Theory* (2011), 1-30.

Hebb, Donald Olding, *The Organization of Behavior: A Neuropsychological Theory,* Mahwah: Lawrence Erlbaum, 2002 [1949].

Hedstrom, Peter and Richard Swedberg, "Social mechanisms: An introductory essay", in Peter Hedstrom and Richard Swedberg (eds.), *Social Mechanisms: An Analytical Approach to Social Theory,* Cambridge: Cambridge University Press, 1998, 1-31.

Hedström, Peter and Petri Ylikoski, "Causal mechanisms in the social sciences", *Annual Review of Sociology* 36 (2010), 49-67.

Hegarty, Mary, "Mechanical reasoning by mental simulation", *Trends in Cognitive Sciences* 8.6 (2004), 280-285.

Hempel, Carl G. and Paul Oppenheim, "Studies in the Logic of Explanation", *Philosophy of science* 15.2 (1948), 135-175.

Heracleous, Loizos and Claus D. Jacobs, "Understanding organizations through embodied metaphors", *Organization Studies* 29.1 (2008), 45-78.

Hesslow, Germund, "The current status of the simulation theory of cognition", *Brain research* 1428 (2012), 71-79.

Hewes, G.W., "Primate communication and the gestural origin of language", *Current Anthropology* 14 (1973), 5–24.

Hirschfeld, Lawrence A., *Race in the Making: Cognition, Culture and the Child's Construction of Human Kinds*, Cambridge: The MIT Press, 1996.

Hirschfeld, Lawrence A. and Susan A. Gelman (eds.), *Mapping the Mind: Domain Specificity in Cognition and Culture,* Cambridge: Cambridge University Press, 1994.

Hopf, Ted, "The logic of habit in International Relations", *European Journal of International Relations* 16 (2010), 539-561.

Hsee, Christopher K. and Reid Hastie, "Decision and experience: why don't we choose what makes us happy?", *Trends in Cognitive Sciences* 10.1 (2006), 31-37.

Huizinga, Johan, *Homo Ludens,* Boston: Beacon Press, 1955.

Husserl, Edmund, *Analyses Concerning Passive and Active Synthesis: Lectures on Transcendental Logic*, Dordrecht: Kluwer Academic Publishers, 2001.

Iacoboni, Marco, et al., "Grasping the Intentions of Others with One's Own Mirror Neuron System", *PLoS Biology* 3.3 (2005), e79.

Ignatow, Gabriel, "Theories of Embodied Knowledge: New Directions for Cultural and Cognitive Sociology?", *Journal for the Theory of Social Behaviour* 37.2 (2007), 115-135.

Isen, Alice M. and Paula F. Levin, "Effect of feeling good on helping: cookies and kindness", *Journal of Personality and Social Psychology* 21.3 (1972), 384-388.

Isenhower, R.W., et al., "The specificity of intrapersonal and interpersonal affordance boundaries: intrinsic versus absolute metrics", in H. Heft and K.L. Marsh (eds.), *Studies in Perception and Action VIII: Thirteenth International Conference on Perception and Action,* Mahwah: Lawrence Erlbaum Associates, 2005, 54–58.

Jackendoff, Ray S. and David Aaron, "Review article of Lakoff and Turner 1989", *Language* 67.2 (1991), 320-38.

Jackson, Philip L., Andrew N. Meltzoff, and Jean Decety, "How do we perceive the pain of others? A window into the neural processes involved in empathy", *Neuroimage* 24.3 (2005), 771-779.

Jacobs, Claus D. and Loizos Heracleous, "Constructing shared understanding: the role of embodied metaphors in organization development", *The Journal of Applied Behavioral Science* 42.2 (2006), 207-226.

Janet B. Bavelas, et al., "'I show how you feel': Motor mimicry as a communicative act", *Journal of Personality and Social Psychology* 50.2 (1986), 322-329.

Jeannerod, Marc, "The representing brain: Neural correlates of motor intention and imagery", *Behavioral and Brain Sciences* 17.02 (1994), 187-202.

Jerneck, Anne and Lennart Olsson, "Breaking out of sustainability impasses: how to apply frame analysis, reframing and transition theory to global health challenges", *Environmental Innovation and Societal Transitions* 1.2 (2011), 255-271.

Johnson, Christopher, "Metaphor vs. conflation in the acquisition of polysemy: The case of see", *Amsterdam Studies in the Theory and History of Linguistic Science Series 4* (1999), 155-170.

Johnson, Christopher, "Learnability in the acquisition of multiple senses: SOURCE reconsidered", *Proceedings of the Annual Meeting of the Berkeley Linguistics Society* 22.1 (2012).

Johnson, Mark, *The Body in the Mind: The Bodily Basis of Meaning, Imagination, and Reason,* Chicago: University of Chicago Press, 1987.

Johnson, Mark, *The Meaning of the Body: Aesthetics of Human Understanding*, Chicago: University of Chicago Press, 2007.

Jostmann, Nils B., Daniël Lakens, and Thomas W. Schubert, "Weight as an embodiment of importance", *Psychological Science* 20.9 (2009), 1169-1174.

Juris, Jeffrey S., "Reflections on #Occupy Everywhere: Social media, public space, and emerging logics of aggregation", *American Ethnologist* 39.2 (2012), 259-279.

Kaempf, George L., et al., "Decision making in complex naval command-and-control environments", *Human Factors: The Journal of the Human Factors and Ergonomics Society* 38.2 (1996), 220-231.

Kalberg, Stephen, *Max Weber's Comparative-Historical Sociology*, Chicago: University of Chicago Press, 1994.

Kasof, Joseph, "Creativity and breadth of attention", *Creativity Research Journal* 10.4 (1997), 303-315.

Kauffman, L. A., "The Theology of Consensus", in Carla Blumenkranz, et al. (eds.), *Occupy!: Scenes from Occupied America*, London: Verso Books, 2011, 46-51.

Kay, Aaron C., et al., "Material priming: The influence of mundane physical objects on situational construal and competitive behavioral choice", *Organizational Behavior and Human Decision Processes* 95.1 (2004), 83-96.

Kelly, Jamie Terence, *Framing Democracy: A Behavioral Approach to Democratic Theory*, Princeton: Princeton University Press, 2012.

Kemmis, Stephen, "What Is Professional Practice? Recognizing and Respecting Diversity in Understandings of Practice", in Clive Kanes (ed.), *Elaborating Professionalism: Studies in Practice and Theory,* Dordrecht: Springer Science, 2010.

Kent, Jennifer L. and Robyn Dowling, "Puncturing automobility? Carsharing practices", *Journal of Transport Geography* 32 (2013), 86-92.

Keysers, Christian, Jon H. Kaas, and Valeria Gazzola, "Somatosensation in social perception", *Nature Reviews Neuroscience* 11.6 (2010), 417-428.

Kihlstrom, John F., "The cognitive unconscious", *Science* 237.4821 (1987), 1445-1452.

Kim, Jaegwon, *Mind in a Physical World: An Essay on the Mind-Body Problem and Mental Causation*, Cambridge: The MIT press, 2000.

Kim, Kwang-ki, *Order and Agency in Modernity: Talcott Parsons, Erving Goffman, and Harold Garfinkel*, Albany: SUNY Press, 2012.

King, Anthony, "Thinking with Bourdieu against Bourdieu", *Sociological Theory*, 18 (2000), 417-433.

Klagge, James C., "Wittgenstein and neuroscience", *Synthese* 78.3 (1989), 319-343.

Klein, Gary, *Sources of Power: How People Make Decisions*, Cambridge: The MIT press, 1999.

Knobloch, Katherine R., et al., "Did They Deliberate? Applying an Evaluative Model of Democratic Deliberation to the Oregon Citizens' Initiative Review", *Journal of Applied Communication Research* 41.2 (2013), 105-125.

Koch, Christof, *The Quest for Consciousness*, New York, 2004.

Kornblum, Sylvan and Ju-Whei Lee, "Stimulus-response compatibility with relevant and irrelevant stimulus dimensions that do and do not overlap with the response", *Journal of Experimental Psychology: Human Perception and Performance* 21.4 (1995), 855-.

Kövecses, Zoltán, *Metaphor and Emotion: Language, Culture, and Body in Human Feeling,* Cambridge: Cambridge University Press, 2003.

Krasner, Stephen, "Approaches to the state: Alternative conceptions and historical dynamics", *Comparative Politics* 16.2 (1984), 223-246.

Kripke, Saul, *Wittgenstein on Rules and Private Language,* Cambridge: Harvard University Press, 1982.

Kroch Anthony S., "Reflexes of grammar in patterns of language change", *Language Variation and Change* 1.03 (1989), 199-244.

Kundera, Milan, *The Book of Laughter and Forgetting,* New York: Alfred A. Knopf, 1980, 121.

Kuran, T., "Social Mechanisms of Dissonance Reduction" in Peter Hedstrom and Richard Swedberg (eds.), *Social Mechanisms: An Analytical Approach to Social Theory,* Cambridge: Cambridge University Press, 1998, 147-171.

Kuukkanen, Jouni-Matti, "Making sense of conceptual change", *History and Theory* 47.3 (2008), 351-372.

Kymlicka, Will, *Liberalism, Community, and Culture,* Oxford: Clarendon Press, 1989.

Kymlicka, Will, *Multicultural Citizenship: A Liberal Theory of Minority Rights*, Oxford: Clarendon Press, 1995.

Kymlicka, Will and Wayne Norman, "Return of the citizen: A survey of recent work on citizenship theory", *Ethics* (1994), 352-381.

Labov, William, *Principles of Linguistic Change, Cognitive and Cultural Factors Vol. 3*, Chichester: Wiley-Blackwell, 2010.

Lakin, Jessica L. and Tanya L. Chartrand, "Using nonconscious behavioral mimicry to create affiliation and rapport", *Psychological Science* 14.4 (2003), 334-339.

Lakin, Jessica L., et al., "The chameleon effect as social glue: Evidence for the evolutionary significance of nonconscious mimicry", *Journal of Nonverbal Behavior* 27.3 (2003), 145-162.

Lakoff, George, *Moral Politics: What Conservatives Know That Liberals Don't*, Chicago: University Of Chicago Press, 1996.

Lakoff, George, *Moral Politics: How Liberals and Conservatives Think,* Chicago: University of Chicago Press, 2010.

Lakoff, George and Mark Johnson, "Conceptual metaphor in everyday language", *The Journal of Philosophy* 77.8 (1980), 453-486.

Lakoff, George and Mark Johnson, *Philosophy in the Flesh: The Embodied Mind and its Challenge to Western Thought*, New York: Basic books, 1999.

Lakoff, George, and Rafael Núñez, *Where Mathematics Come From: How the Embodied Mind Brings Mathematics into Being*, New York: Basic books, 2001.

Landau, Mark J., Brian P. Meier, and Lucas A. Keefer, "A metaphor-enriched social cognition", *Psychological Bulletin* 136.6 (2010), 1045-1067.

Langton, Stephen RH, Roger J. Watt, and Vicki Bruce, "Do the eyes have it? Cues to the direction of social attention", *Trends in Cognitive Sciences* 4.2 (2000), 50-59.

Langton, Stephen RH and Vicki Bruce, "Reflexive visual orienting in response to the social attention of others", *Visual Cognition* 6.5 (1999), 541-567.

Lash, Scott, "Pierre Bourdieu: Cultural economy and Social Change", in Pierre Félix Bourdieu, et al. (eds.), *Bourdieu: Critical Perspectives*, Chicago: University of Chicago Press, 1993.

Latour, Bruno, *Science in Action: How to Follow Scientists and Engineers Through Society*, Cambridge: Harvard University Press, 1987.

Latour, Bruno and Steve Woolgar, *Laboratory Life: The Construction of Scientific Facts*, Princeton: Princeton University Press, 1986.

Lave, Jean, *Cognition in Practice: Mind, Mathematics and Culture in Everyday Life*, Cambridge: Cambridge University Press, 1988

Lave, Jean and Etienne Wenger, *Situated Learning: Legitimate Peripheral Participation*, Cambridge: Cambridge University Press, 1991.

Leavenworth, B. M., "Programming with (out) the GOTO", *Proceedings of the ACM Annual Conference Volume 2*, ACM, 1972.

Lenat, Douglas B. "CYC: A large-scale investment in knowledge infrastructure", *Communications of the ACM* 38.11 (1995), 33-38.

Levin, Irwin P., Sandra L. Schneider, and Gary J. Gaeth, "All frames are not created equal: A typology and critical analysis of framing effects", *Organizational Behavior and Human Decision Processes* 76.2 (1998), 149-188.

Lévi-Strauss, Clause, *Mythologiques Vol. 4*, Chicago: University of Chicago Press, 1990 [1964].

Libet, Benjamin, "Unconscious cerebral initiative and the role of conscious will in voluntary action", *Behavioral and Brain Sciences* 8 (1985), 529-539.

Lieberman, Robert C. "Ideas, institutions, and political order: Explaining political change", *American Political Science Review* 96.04 (2002), 697-712.

Limb, Charles J. and Allen R. Braun, "Neural substrates of spontaneous musical performance: an FMRI study of jazz improvisation", *PLoS One* 3.2 (2008).

Littig, Beate, "On high heels: A praxiography of doing Argentine tango", *European Journal of Women's Studies* (2013).

Livingston, Alexander, "Avoiding Deliberative Democracy? Micropolitics, Manipulation, and the Public Sphere", *Philosophy & Rhetoric* 45.3 (2012), 269-294.

Lizardo, Omar, "'Mirror neurons,' collective objects and the problem of transmission: Reconsidering Stephen Turner's critique of practice theory", *Journal for the Theory of Social Behaviour* 37.3 (2007), 319-350.

Lizardo, Omar, "Is a 'special psychology' of practice possible? From values and attitudes to embodied dispositions", *Theory & Psychology* 19.6 (2009), 713-727.

Loorbach, Derk and Jan Rotmans, "The practice of transition management: Examples and lessons from four distinct cases", *Futures* 42.3 (2010), 237-246.

Lutz, Antoine, et al., "Guiding the study of brain dynamics by using first-person data: synchrony patterns correlate with ongoing conscious states during a simple visual task", *Proceedings of the National Academy of Sciences* 99.3 (2002), 1586-1591.

MacIntyre, Alasdair C., *After Virtue,* Notre Dame: University of Notre Dame Press, 1984.

MacIntyre, Alasdair, "The Nature of Virtues," *Hastings Center Report* 11 (1981), 27-34.

Mack, Arien and Irvin Rock, *Inattentional Blindness,* Cambridge: The MIT press, 1998.

Macrae, C. Neil, et al., "A case of hand waving: Action synchrony and person perception", *Cognition* 109.1 (2008), 152-156.

Maguire, Steve, Cynthia Hardy, and Thomas B. Lawrence, "Institutional entrepreneurship in emerging fields: HIV/AIDS treatment advocacy in Canada", *Academy of Management Journal* 47.5 (2004), 657-679.

Malle, Bertram F., *How the Mind Explains Behavior: Folk Explanations, Meaning, and Social Interaction,* Cambridge: The MIT Press, 2004.

Mandler, Jean M., "The spatial foundations of the conceptual system", *Language and Cognition* 2.1 (2010), 21-44.

Mansbridge, Jane J. *Beyond Adversary Democracy*, Chicago: University of Chicago Press, 1983.

March, James G. and Herbert Alexander Simon, *Organizations*, Oxford: Wiley, 1958.

Margalit, Avishai and Joseph Raz, "National self-determination", *The Journal of Philosophy* (1990), 439-461.

Mark Turner, *Cognitive Dimensions of Social Science,* Oxford: Oxford University Press, 2001.

Marsh, Kerry L., et al., "Contrasting approaches to perceiving and acting with others", *Ecological Psychology* 18.1 (2006), 1-38.

Martin, Alex, "The representation of object concepts in the brain", *Annual Review of Psychology* 58 (2007), 25-45.

Martin, Michael, *Verstehen: The Uses of Understanding in the Social Sciences*, New Brunswick: Transaction Publishers, 2000.

Masuda, Takahiko and Richard E. Nisbett. "Attending holistically versus analytically: comparing the context sensitivity of Japanese and Americans", *Journal of Personality and Social Psychology* 81.5 (2001), 922-934.

Matsumoto, David and Bob Willingham, "Spontaneous facial expressions of emotion of congenitally and noncongenitally blind individuals", *Journal of Personality and Social Psychology* 96.1 (2009), 1-10.

Maunsell, John HR., "The brain's visual world: Representation of visual targets in cerebral cortex", *Science* 270 (1995), 764-769.

Mayntz, Renate, "Mechanisms in the analysis of social macro-phenomena", *Philosophy of the Social Sciences* 34.2 (2004), 237-259.

McCubbins, Mathew D. and Daniel B. Rodriguez, "When Does Deliberating Improve Decisionmaking", *Journal of Contemporary Legal Issues* 15 (2006), 9-50.

McCubbins, Mathew and Mark Turner, "Going Cognitive: Tools for Rebuilding the Social Sciences", *Available at SSRN 1728262* (2010).

McCulloch, Warren S. and Walter Pitts, "A logical calculus of the ideas immanent in nervous activity", *Bulletin of Mathematical Biology* 5.4 (1943), 115-133.

McNeill, David, *Hand and Mind: What Gestures Reveal About Thought*, Chicago: University of Chicago Press, 1992.

McPhail, Clark and Cynthia Rexroat, "Mead vs. Blumer", *American Sociological Review* 44 (1979), 449-467.

Mead, George H., "What Social Objects Must Psychology Presuppose?", *The Journal of Philosophy, Psychology and Scientific Methods* 7 (1910), 174-180.

Meister, Ingo Gerrit, et al., "Motor cortex hand area and speech: implications for the development of language", *Neuropsychologia* 41.4 (2003), 401-406.

Memmert, Daniel, "Pay attention! A review of visual attentional expertise in sport", *International Review of Sport and Exercise Psychology* 2.2 (2009), 119-138.

Merleau-Ponty, Maurice, *The Structure of Behavior,* trans. Alden L. Fisher, Boston: Beacon, 1965.

Merleau-Ponty, Maurice, *Phenomenology of Perception*, London: Routledge, 1981.

Meteyard, Lotte and Gabriella Vigliocco, "The role of sensory and motor information in semantic representation: a review", in Paco Calvo and Toni Gomila (eds.), *Handbook of Cognitive Science: An Embodied Approach,* San Diego: Elsevier, 2008.

Metzinger, Thomas, *Being No One: The Self-Model Theory of Subjectivity*, Cambridge: MIT Press, 2004.

Metzinger, Thomas, "Empirical perspectives from the self-model theory of subjectivity: a brief summary with examples" in R. Banerjee and B. K. Chakrabarti (eds.), *Models of Brain and Mind: Physical, Computational and Psychological Approaches* 168 (2008), 215-245.

Meyer, John W. and Ronald L. Jepperson, "The 'actors' of modern society: The cultural construction of social agency", *Sociological Theory* 18.1 (2000), 100-120.

Milgram, Stanley, "Behavioral study of obedience", *The Journal of Abnormal and Social Psychology* 67.4 (1963), 371-378.

Milgram, Stanley, "Some conditions of obedience and disobedience to authority", *Human Relations* 18 (1965), 57-76.

Militello, Laura and Leona Lim, "Patient assessment skills: Assessing early cues of necrotizing enterocolitis", *The Journal of Perinatal & Neonatal Nursing* 9.2 (1995), 42-52.

Militello, Laura G. and Robert JB Hutton, "Applied Cognitive Task Analysis (ACTA): A practitioner's toolkit for understanding cognitive task demands", *Ergonomics* 41.11 (1998), 1618-1641.

Minsky, Marvin, "A Framework for Representing Knowledge", *The Psychology of Computer Vision,* 1975.

Miyake, Yoshihiro, Yohei Onishi, and Ernst Pöppel, "Two types of anticipation in synchronization tapping", *Acta Neurobiologiae Experimentalis* 64.3 (2004), 415-426.

Miyamoto, Yuri, Richard E. Nisbett, and Takahiko Masuda, "Culture and the physical environment holistic versus analytic perceptual affordances", *Psychological Science* 17.2 (2006), 113-119.

Mulhall, Stephen, *On Being in the World: Wittgenstein and Heidegger on Seeing Aspects,* London: Routledge, 1993.

Munch, Peter A., "'Sense' and 'Intention' in Max Weber's Theory of Social Action", *Sociological Inquiry* 45.4 (1975), 59-65.

Murphy, Gregory, "Polysemy and novel word meanings," in Thomas B. Ward, Steven M. Smith, and Jyotsna Vaid (eds.), *Creative Thought: An Investigation of Conceptual Structures and Processes,* American Psychological Association, 1997.

Mutz, Diana C., *Hearing the Other Side: Deliberative Versus Participatory Democracy*, Cambridge: Cambridge University Press, 2006.

Nagel, Thomas, "What is it like to be a bat?", *The Philosophical Review* 83 (1974): 435-450.

Nagel, Thomas, *The View from Nowhere,* Oxford: Oxford University Press, 1989.

Nelson, Thomas E., Rosalee A. Clawson, and Zoe M. Oxley, "Media framing of a civil liberties conflict and its effect on tolerance", *American Political Science Review* 91.3 (1997), 567-583.

Nerlich, Brigitte, "'Climategate': paradoxical metaphors and political paralysis", *Environmental Values* 19.4 (2010), 419-442.

Nersessian, Nancy J., "How do scientists think? Capturing the dynamics of conceptual change in science", *Cognitive Models of Science* 15 (1992), 3-44.

Neumann, Christoph, "Is metaphor universal? Cross-language evidence from German and Japanese", *Metaphor and Symbol* 16.1/2 (2001), 123-142.

Newell, Allen and Herbert A. Simon, "Computer science as empirical inquiry: Symbols and search", *Communications of the ACM* 19.3 (1976), 113-126.

Newman-Norlund, Roger D., et al., "The mirror neuron system is more active during complementary compared with imitative action", *Nature Neuroscience* 10.7 (2007), 817-818.

Niedenthal, Paula M., et al., "Embodiment in attitudes, social perception, and emotion", *Personality and Social Psychology Review* 9.3 (2005), 184-211.

Nietzsche, Friedrich, *Beyond Good and Evil: Prelude to a Philosophy of the Future,* Cambridge: Cambridge University Press, 2002.

Norman, Donald A. and Tim Shallice, *Attention to Action: Willed and Automatic Control of Behavior*, La Jolla: California University San Diego La Jolla Center for Human Information Processing, 1980.

Nunez, Rafael E., "Mathematics, the Ultimate Challenge to Embodiment: Truth and the Grounding of Axiomatic Systems" in Paco Calvo and Toni Gomila (eds.), *Handbook of Cognitive Science: An Embodied Approach,* San Diego: Elsevier, 2008.

Oakeshott, Michael, *Rationalism in Politics and Other Essays,* London: Methuen, 1962.

Oakeshott, Michael, *On Human Conduct,* Oxford: Clarendon, 1991.

Oberman, Lindsay M. and Vilayanur S. Ramachandran, "The simulating social mind: the role of the mirror neuron system and simulation in the social and communicative deficits of autism spectrum disorders", *Psychological Bulletin* 133.2 (2007): 310-327.

Oliver, David and Johan Roos, "Beyond text: Constructing organizational identity multimodally", *British Journal of Management* 18.4 (2007), 342-358.

O'Neill, Martin "Explaining 'The Hardness of the Logical Must': Wittgenstein on Grammar, Arbitrariness and Logical Necessity", *Philosophical Investigations* 24.1 (2001), 1-29.

Orlikowski, Wanda J., "Improvising organizational transformation over time: A situated change perspective", *Information Systems Research* 7.1 (1996), 63-92.

Orlikowski, Wanda J., "Sociomaterial practices: exploring technology at work", *Organization Science* 28 (2007), 1435-1448.

Orlikowski, Wanda J. and M. S. Feldman, "Theorizing Practice and Practicing Theory", *Organization Science* (2011), 1-14.

Ortner, Sherry B., "Theory in anthropology since the sixties", *Comparative Studies in Society and History* 26.1 (1984), 126-166.

Ortner, Sherry, "Subjectivity and cultural critique", *Anthropological Theory* 5 (2005), 31–52.

Oullier, Olivier, et al., "Motor synchrony and the emergence of trust in social economics games", *Frontiers of Computational Neuroscience. Conference Abstract: Computations, Decisions and Movement*, 2010.

Overgaard, Soren, "Exposing the Conjuring Trick: Wittgenstein on Subjectivity", *Phenomenology and the Cognitive Sciences* 3 (2004), 263–286.

Özbilgin, M. and A. Tatli, "Understanding Bourdieu's Contribution to Organization and Management Studies", *Academy of Management Review* 30 (2005), 855-869.

Pacherie, Elisabeth, "The Phenomenology of Joint Action: Self-Agency vs. Joint-Agency" in Axel Seemann (ed.), *Joint Attention: New Developments*, Cambridge: MIT Press, 2011

Patten, Alan, "Rethinking Culture: the social lineage account", *American Political Science Review* 105.04 (2011), 735-749.

Peacocke, Christopher, *Sense and Content: Experience, Thought, and their Relations*, Oxford: Clarendon Press, 1983.

Pecher, Diane, René Zeelenberg, and Lawrence W. Barsalou, "Verifying different-modality properties for concepts produces switching costs", *Psychological Science* 14.2 (2003), 119-124.

Pellegrino, G. di, et al., "Understanding motor events: a neurophysiological study", *Experimental Brain Research* 91.1 (1992), 176-180.

Perinbanayagam, Robert S., *Signifying acts: Structure and meaning in everyday life,* Carbondale: Southern Illinois University Press, 1985.

Pettit, Philip, "Neuroscience and Agent-Control", in Don Ross (ed.), *Distributed Cognition and the Will: Individual Volition and Social Context*, Cambridge: The MIT Press, 2007.

Pezzulo, Giovanni and Gianguglielmo Calvi, "Computational explorations of perceptual symbol systems theory", *New Ideas in Psychology* 29.3 (2011), 275-297.

Pickerill, Jenny and John Krinsky. "Why does Occupy matter?", *Social Movement Studies* 11.3-4 (2012), 279-287.

Pickering, Andrew, *Science as Practice and Culture,* Chicago: University of Chicago Press, 1992.

Pickering, Martin J. and Simon Garrod, "Toward a mechanistic psychology of dialogue", *Behavioral and Brain Sciences* 27.2 (2004), 169-189.

Pierson, Paul, "Increasing returns, path dependence, and the study of politics", *American Political Science Review* 94.2 (2000), 251-267.

Pinker, Steven, *How the Mind Works,* New York: Norton, 1997.

Pitcher, David, et al., "Transcranial magnetic stimulation disrupts the perception and embodiment of facial expressions", *The Journal of Neuroscience* 28.36 (2008), 8929-8933.

Pitkin, Hanna, *Wittgenstein and Justice*, Berkeley: University of California Press, 1972.

Polanyi, Michael, *Personal Knowledge: Towards a Post-Critical Philosophy*, Chicago: University of Chicago Press, 1958.

Polanyi, Michael, *The Tacit Dimension,* Garden City: Doubleday, 1966.

Pöppel, Ernst, "Temporal mechanisms in perception", *International Review of Neurobiology* 37 (1994), 185-202.

Posner, Michael I., "Orienting of attention", *Quarterly Journal of Experimental Psychology* 32.1 (1980), 3-25.

Posner, M. I. and Y. Cohen, "Components of attention", in X. H. Bouma and D. Bowhuis (eds.), *Attention and Performance*, London: L. Erlbaum Associates, 1984, 531-556.

Postill, John, "Introduction: Theorising media and practice", in Birgit Brauchler and John Postill (eds.), *Theorising Media and Practice Vol. 4*, New York: Berghahn Books, 2010, 1-32.

Povinelli, Daniel J. and Todd M. Preuss, "Theory of mind: evolutionary history of a cognitive specialization", *Trends in Neurosciences* 18.9 (1995), 418-424.

Povinelli, Daniel J. and Christopher G. Prince, "When self met other", *Self-awareness: Its Nature and Development*, New York: Guilford Press, 1998, 37-107.

Prinz, Jesse J., *Furnishing the Mind: Concepts and their Perceptual Basis*, Cambridge: The MIT press, 2004

Prinz, Wolfgang, "How do we know about our own actions?" in Sabine Maasen, Wolfgang Prinz, and Gerhard Roth (eds.), *Voluntary Action: Brains, Minds, and Sociality,* Oxford: Oxford University Press, 2003.

Pritchett, Bradley L., "Garden path phenomena and the grammatical basis of language processing." *Language* 64.3 (1988), 539-576.

Przeworski, Adam, "Deliberation and ideological domination", in Jon Elster (ed.), *Deliberative Democracy Vol. 1,* Cambridge: Cambridge University Press, 1998, 140-160.

Pulvermüller, Friedemann, "Meaning and the brain: The neurosemantics of referential, interactive, and combinatorial knowledge", *Journal of Neurolinguistics* 25.5 (2012), 423-459.

Pulvermüller, Friedemann and Luciano Fadiga, "Active perception: sensorimotor circuits as a cortical basis for language", *Nature Reviews Neuroscience* 11.5 (2010), 351-360.

Raffman, Diana, "On the persistence of phenomenology", in Thomas Metzinger (ed.), *Conscious Experience,* Paderborn: Schöningh, 1995, 293-308.

Ramachandran, V.S., *A Brief Tour of Human Consciousness: From Impostor Poodles to Purple Numbers*, New York: Pi Press. 2005.

Rawls, John, *A Theory of Justice,* London: Oxford University Press, 1971.

Razsa, Maple and Andrej Kurnik, "The Occupy Movement in Žižek's Hometown: Direct Democracy and a Politics of Becoming", *American Ethnologist* 39.2 (2012), 238-258.

Reckwitz, Andreas, "The Constraining Power of Cultural Schemes and the Liberal Model of Beliefs", *History of the Human Sciences* 15.2 (2002), 115-125

Reckwitz, Andreas, "The status of the "material" in theories of culture: From "social structure" to "artefacts"", *Journal for the Theory of Social Behaviour* 32.2 (2002), 195-217.

Reckwitz, Andreas, "Toward a Theory of Social Practices A development in culturalist theorizing", *European Journal of Social Theory* 5.2 (2002), 243-263.

Renaud, Patrice, et al., "Eye-tracking in immersive environments: A general methodology to analyze affordance-based interactions from oculomotor dynamics", *CyberPsychology & Behavior* 6.5 (2003), 519-526.

Richardson, Daniel C., et al. "Spatial representations activated during real-time comprehension of verbs", *Cognitive Science* 27.5 (2003), 767-780.

Richardson, Michael J., et al., "Ecological psychology: Six principles for an embodied–embedded approach to behavior", in Paco Calvo and Toni Gomila (eds.), *Handbook of cognitive science: An embodied approach,* San Diego: Elsevier, 2008, 161-187.

Richerson, Peter J. and Robert Boyd, *Not by Genes Alone: How Culture Transformed Human Evolution*, Chicago: University of Chicago Press, 2008.

Riker, William, *Liberalism Against Populism: A Confrontation Between the Theory of Democracy and the Theory of Social Choice*, Illinois: Waveland Press, 1982.

Ritzer, George, "Micro-macro linkage in sociological theory: applying a metatheoretical tool", in George Ritzer (ed.), *Frontiers of Social Theory: The New Syntheses,* New York: Columbia University Press, 1990, 347-370.

Rizzolatti, Ciacomo, "The Mirror Neuron System and Imitation", in Susan L. Hurley, Nick Chater (eds.), *Perspectives on Imitation: From Neuroscience to Social Science-Volume 1: Mechanisms of Imitation and Imitation in Animals,* Cambridge: The MIT Press, 2005, 55-76.

Rizzolatti, Giacomo and Laila Craighero, "The mirror-neuron system", *Annual Review of Neuroscience.* 27 (2004), 169-192.

Rizzolatti, L., I. Daseola, and C. Umilta, "Reorienting attention across the horizontal and vertical meridians: Evidence in favor of a premotor theory of attention", *Neuropsychologia* 25 (1987), 31-40.

Rizzolatti, Giacomo and Corrado Sinigaglia, "The functional role of the parieto-frontal mirror circuit: interpretations and misinterpretations", *Nature Reviews Neuroscience* 11.4 (2010), 264-274.

Romdenh-Romluc, Komarine, "The Power to Reckon with the Possible", in Thomas Baldwin, (ed.), *Reading Merleau-Ponty: On the Phenomenology of Perception,* London: Routledge, 2007.

Rooij, Iris van, Raoul M. Bongers, and W. P. F. G. Haselager, "A non-representational approach to imagined action", *Cognitive Science* 26.3 (2002), 345-375.

Røpke, Inge, "Theories of practice—New inspiration for ecological economic studies on consumption", *Ecological Economics* 68.10 (2009), 2490-2497.

Rosenberg, Shawn W., "Rethinking democratic deliberation: The limits and potential of citizen participation", *Polity* 39.3 (2007), 335-360.

Rosenthal, Alan, *The Third House,* Washington: CQ Press, 2001.

Rotmans, Jan, René Kemp, and Marjolein Van Asselt, "More evolution than revolution: transition management in public policy", *Foresight* 3.1 (2001), 15-31.

Rouse, Joseph, "Practice theory," *Handbook of the Philosophy of Science* 15 (2007): 509-.

Rubinstein, David, *Culture, Structure and Agency: Toward a Truly Multidimensional Sociology,* Thousand Oaks: Sage, 2001.

Rumelhart, David E., Geoffrey E. Hintont, and Ronald J. Williams, "Learning representations by back-propagating errors", *Nature* 323.6088 (1986), 533-536.

Rumelhart, David E. and James L. McClelland, *Parallel distributed processing: explorations in the microstructure of cognition,* Cambridge: The MIT Press (1986).

Ryle, Gilbert, *The Concept of Mind,* Chicago: University of Chicago Press, 1949.

Sahlins, Marshall, "Individual experience and cultural order" in Gabrielle Spiegel (ed.), *Practicing History*, New York: Routledge, 2005, 111-120.

Sandel, Michael J., "The procedural republic and the unencumbered self", *Political Theory* 12.1 (1984), 81-96.

Sandel, Michael J., *Liberalism and the Limits of Justice,* Cambridge: Cambridge University Press, 1998 [1981].

Sarter, Martin, Ben Givens, and John P. Bruno, "The cognitive neuroscience of sustained attention: where top-down meets bottom-up", *Brain Research Reviews* 35.2 (2001), 146-160.

Sartori, Luisa, et al., "From simulation to reciprocity: The case of complementary actions", *Social Neuroscience* 7.2 (2012), 146-158.

Sartre, Jean-Paul, "Existentialism", in Stephen Priest, ed., *Jean-Paul Sartre: Basic Writings,* London: Routledge, 2002.

Schatzki, Theodore R., "Do social structures govern action?", *Midwest Studies in Philosophy* 15.1 (1990), 280-295.

Schatzki, Theodore, *Social Practices: A Wittgensteinian Approach to Human Activity and the Social*, Cambridge: Cambridge University Press, 1996.

Schatzki, Theodore R., "Practices and Actions A Wittgensteinian Critique of Bourdieu and Giddens", *Philosophy of the Social Sciences* 27.3 (1997), 283-308.

Schatzki, Theodore, *The Site of the Social: A Philosophical Exploration of the Constitution of Social Life and Change*, University Park: Pennsylvania State University Press, 2002.

Schatzki, Theodore R., "The time of activity", *Continental Philosophy Review* 39.2 (2006), 155-182.

Schatzki, Theodore R., *The Timespace of Human Activity: On Performance, Society, and History as Indeterminate Teleological Events,* Lanham: Lexington Books, 2010.

Schubert, Thomas W., "Your highness: vertical positions as perceptual symbols of power", *Journal of Personality and Social Psychology* 89.1 (2005), 1-

Schumpeter, Joseph A., *Capitalism, Socialism and Democracy*, New York: Routledge, 2013[1942]).

Schutz, Alfred, *The Phenomenology of the Social World*, trans. George Walsh and Frederick Lehnert, Evanston: Northwestern University Press, 1967.

Scribner, Sylvia, "Thinking in action: Some characteristics of practical thought", in Robert J. Sternberg and Richard K. Wagner (eds.), *Practical Intelligence: Nature and Origins of Competence in the Everyday World*, Cambridge: Cambridge University Press, 1986.

Seager, William and David Bourget, "Representationalism about consciousness", Max Velmans and Susan Schneider (eds.), *The Blackwell Companion to Consciousness*, Malden: Blackwell Publishers, 2007, 261-276.

Searle, John R., "Minds, brains, and programs", *Behavioral and Brain Sciences* 3 (1980), 417-457.

Searle, John R., *Intentionality: An Essay in the Philosophy of Mind*, Cambridge: Cambridge University Press, 1983.

Searle, John R., "Consciousness, explanatory inversion, and cognitive science", *Behavioral and Brain Sciences* 13.04 (1990): 585-596.

Searle, John R., "Consciousness, the brain and the connection principle: a reply", *Philosophy and Phenomenological Research* (1995), 217-232.

Searle, John R., *The Construction of Social Reality,* New York: Simon and Schuster, 1995.

Searle, John, "Consciousness: What we still don't know", *The New York Review of Books* 52.1 (2005), 36-39.

Searle, John R., "Dualism revisited", *Journal of Physiology-Paris* 101.4 (2007), 169-178.

Searle, John, *Making the Social World: The Structure of Human Civilization,* Oxford: Oxford University Press, 2010.

Searle, John R., Daniel C. Dennett, and David John Chalmers, *The Mystery of Consciousness*, New York Review of Books, 1997.

Sebanz, Natalie, Harold Bekkering, and Günther Knoblich, "Joint action: bodies and minds moving together", *Trends in Cognitive Sciences* 10.2 (2006), 70-76.

Sewell, William H. Jr, "A theory of structure: Duality, agency, and transformation", *American Journal of Sociology* 98.1 (1992), 1-29.

Sewell, William H. Jr., *Logics of History: Social Theory and Social Transformation*, University of Chicago Press, 2005.

Seyla, Benhabib, *Situating the Self: Gender, Community, and Postmodernism in Contemporary Ethics,* Cambridge: Polity Press, 1992.

Shanton, Karen and Alvin Goldman, "Simulation theory", *Wiley Interdisciplinary Reviews: Cognitive Science* 1.4 (2010), 527-538.

Shapiro, Ian, *The State of Democratic Theory*, Princeton: Princeton University Press, 2009.

Shiffrar, Maggie and Jennifer J. Freyd, "Apparent motion of the human body", *Psychological Science* 1.4 (1990), 257-264.

Shoben, Edward J. and Christina L. Gagne, "Thematic Relations and the Creation of Combined Concepts", in Thomas B. Ward, Steven M. Smith, and Jyotsna Vaid (eds.), *Creative Thought: An Investigation of Conceptual Structures and Processes,* American Psychological Association, 1997.

Shockley, Kevin, Marie-Vee Santana, and Carol A. Fowler, "Mutual interpersonal postural constraints are involved in cooperative conversation", *Journal of Experimental Psychology: Human Perception and Performance* 29.2 (2003) 326-332.

Shoemaker, Sydney, *The First-Person Perspective and Other Essays,* Cambridge: Cambridge University Press, 1996.

Shove, Elizabeth, *Comfort, Cleanliness and Convenience: The Social Organization of Normality*, Oxford: Berg, 2003.

Shove, Elizabeth and Mika Pantzar, "Consumers, Producers and Practices Understanding the invention and reinvention of Nordic walking", *Journal of Consumer Culture* 5.1 (2005): 43-64.

Shove, Elizabeth, Mika Pantzar, and Matt Watson, *The Dynamics of Social Practice: Everyday Life and how it Changes*, Los Angeles: Sage, 2012.

Shuford, Elliot, Interview with Daniel Schugurensky, The Citizens Initiative Review: "An important contribution to the revitalization of democracy", accessed August 2014, deliberative-democracy.net. http://www.deliberative-democracy.net/index.php/resources/other-shared-resources/doc_download/34-the-oregon-cir-interview-with-elliot-shuford).

Shweder, Richard A., "A polytheistic conception of the sciences and the virtues of deep variety", *Annals of the New York Academy of Sciences* 935.1 (2001), 217-232.

Silberstein, Michael and John McGeever, "The search for ontological emergence", *The Philosophical Quarterly* 49.195 (1999), 201-214.

Simmons, W. Kyle, et al., "fMRI evidence for word association and situated simulation in conceptual processing", *Journal of Physiology-Paris* 102.1 (2008), 106-119.

Simon, J. Richard, "Reactions toward the source of stimulation", *Journal of Experimental Psychology* 81.1 (1969), 174-.

Simons, Daniel J., and Christopher F. Chabris, "Gorillas in our midst: Sustained inattentional blindness for dynamic events", *Perception-London* 28.9 (1999), 1059-1074.

Sitrin, Marina, "One No, Many Yeses", in Keith Gessen and Astra Taylor (eds.), *Occupy!: Scenes from Occupied America*, London: Verso Books, 2011.

Sitrin, Marina, "Horizontalism and the Occupy movements", *Dissent* 59.2 (2012), 74-75.

Slingerland, Edward, *Effortless Action: Wu-wei as Conceptual Metaphor and Spiritual Ideal in Early China*, Oxford: Oxford University Press, 2003.

Slingerland, Edward Gilman, *What Science Offers the Humanities*, New York: Cambridge University Press, 2008.

Smith, Adrian, Andy Stirling, and Frans Berkhout, "The governance of sustainable socio-technical transitions", *Research Policy* 34.10 (2005), 1491-1510.

Smith, Andrew F., "Political deliberation and the challenge of bounded rationality", *Politics, Philosophy & Economics* (2013), 1-23.

Smith, Lee and Raymond Klein, "Evidence for Semantic Satiation: Repeating a Category Slows Subsequent Semantic Processing", *Journal of Experimental Psychology: Learning, Memory, and Cognition* 16.5 (1990), 852-861.

Smith, Nicholas H., *Charles Taylor: Meaning, Morals and Modernity,* Wiley-Blackwell, 2002.

Smith, Vivianne C., Joel Pokorny, and Stuart J. Starr, "Variability of color mixture data—I. Interobserver variability in the unit coordinates", *Vision Research* 16.10 (1976), 1087-1094.

Solms, Mark and Oliver Turnbull, *Brain and the Inner World: An Introduction to the Neuroscience of the Subjective Experience*, Other Press LLC, 2002.

Solomon, Karen Olseth and Lawrence W. Barsalou, "Perceptual simulation in property verification", *Memory & Cognition* 32.2 (2004) 244-259.

Spiegel, Gabrielle, "Introduction", in Gabrielle M. Spiegel (ed.), *Practicing History: New Directions in Historical Writing After the Linguistic Turn*, London: Routledge, 2004.

Spivey, Michael, *The Continuity of Mind*, Oxford: Oxford University Press, USA, 2008.

Stanfield, Robert A. and Rolf A. Zwaan, "The effect of implied orientation derived from verbal context on picture recognition", *Psychological science* 12.2 (2001), 153-156.

Stoerig, Petra and Alan Cowey, "Wavelength discrimination in blindsight", *Brain* 115.2 (1992), 425-444.

Stoffregen, Thomas A., et al., "Perceiving affordances for another person's actions", *Journal of Experimental Psychology: Human Perception and Performance* 25.1 (1999), 120-136.

Strawson, Galen, *Mental Reality,* Cambridge: The MIT Press, 1994.

Street, John, "Remote Control? Politics, Technology and Electronic Democracy." *European Journal of Communication* 12.1 (1997), 27-42.

Stroop, J. Ridley, "Studies of interference in serial verbal reactions", *Journal of Experimental Psychology,* 18 (1935), 643–662.

Swidler, Ann, "Culture in Action: Symbols and Strategies", *American Sociological Review,* 51 (1986), 273-286.

Swidler, Ann, "What Anchors Cultural Practices" in Karin Knorr Cetina, Theodore R. Schatzki, and Eike Von Savigny (eds.), *The Practice Turn in Contemporary Theory,* London: Routledge, 2001, 74-92.

Sztompka, Peter (ed.), *Agency and Structure: Reorienting Social Theory*, New York: Routledge, 1994.

Sztompka, Peter, "Evolving focus on agency", in Peter Sztompka (ed.), *Agency and Structure: Reorienting Social Theory,* New York: Routledge, 1994, 25-62.

Tannen, Deborah, *Talking Voices: Repetition, Dialogue, and Imagery in Conversational Discourse*, Cambridge: Cambridge University Press, 1992.

Taub, S.F., "How productive are metaphors?" in Adele E. Goldberg, *Conceptual structure, discourse and language*, Stanford: CSLI Publications, 1996.

Taylor, Charles, *The Explanation of Behaviour,* New York: Humanities Press, 1964.

Taylor, Charles, "Explaining Action", *Inquiry* 13.1-4 (1970), 54-89.

Taylor, Charles, "Interpretation and the Sciences of Man", *The Review of Metaphysics* 25.1 (1971).

Taylor, Charles, *Human Agency and Language,* Cambridge: Cambridge University Press, 1985.

Taylor, Charles, *Philosophical Papers: Volume 1, Human Agency and Language*, Cambridge: Cambridge University Press, 1985.

Taylor, Charles, *Sources of the Self,* Cambridge: Harvard University Press, 1989.

Taylor, Charles, *Ethics of Authenticity*, Cambridge: Harvard University Press, 1992.

Taylor, Charles, "Engaged Agency and Background in Heidegger", in Charles B. Guignon (ed.), *The Cambridge Companion to Heidegger,* Cambridge: Cambridge University Press, 1993.

Taylor, Charles, "To Follow a Rule" in Craig J. Calhoun, Edward LiPuma, and Moishe Postone (eds.), *Bourdieu: Critical Perspectives,* Chicago: University of Chicago Press, 1993.

Taylor, Charles, "Cross-purposes: the liberal-communitarian debate", in Charles Taylor, *Philosophical Arguments,* Cambridge: Harvard University Press, 1995.

Taylor, Charles, *Philosophical Arguments,* Cambridge: Harvard University Press, 1995.

Thach, W. Thomas, H. P. Goodkin, and J. G. Keating, "The cerebellum and the adaptive coordination of movement", *Annual Review of Neuroscience* 15.1 (1992), 403-442.

THECONCERTorg. "Direct Democracy Part 2 @ Occupy Wall Street - Facilitation Training for General Assembly's", Online video, *Youtube.com*. Youtube, Oct 24, 2011, http://www.youtube.com/watch?v=qXT2_aka60A, Accessed March 4, 2013.

Thibodeau, Paul H. and Lera Boroditsky, "Metaphors we think with: the role of metaphor in reasoning", *PloS One* 2.6 (2011): e16782.

Thompson, Dennis F., "Deliberative democratic theory and empirical political science", *Annual Review of Political Science* 11 (2008), 497-520.

Tiedens, Larissa Z. and Alison R. Fragale, "Power moves: complementarity in dominant and submissive nonverbal behavior", *Journal of Personality and Social Psychology* 84.3 (2003), 558-568.

Tilly, Charles, "Mechanisms in political processes", *Annual Review of Political Science* 4.1 (2001), 21-41.

Tolstoy, Leo, *War and Peace*, trans. Louise and Aylmer Maude, Oxford: Oxford University Press, 2010.

Tononi, Giulio and Gerald M. Edelman, "Consciousness and complexity", *Science* 282.5395 (1998), 1846-1851.

Tucker, Mike and Rob Ellis, "Action priming by briefly presented objects", *Acta Psychologica* 116.2 (2004), 185-203.

Turing, Alan M., "Computing machinery and intelligence", *Mind* 59.236 (1950), 433-460.

Turner, Stephen, *The Social Theory of Practices: Tradition, Tacit Knowledge, and Presuppositions,* Chicago: University of Chicago Press, 1994.

Turner, Stephen P., *Brains/Practices/Relativism: Social Theory after Cognitive Science*, Chicago: Chicago University Press, 2002.

Turner, Stephen P., "Mirror neurons and practices: A response to Lizardo", *Journal for the Theory of Social Behaviour* 37.3 (2007), 351-371.

Turner, Stephen, "Practice then and now", *Human Affairs,* 17 (2007), 111–125.

Tversky, Amos and Daniel Kahneman, "Rational choice and the framing of decisions", *Journal of Business* 59.4 (1986), 251-278.

Tversky, Amos and Daniel Kahneman, "The framing of decisions and the psychology of choice", *Science* 211.4481 (1981), 453-458.

TY Mann, Derek, et al., "Perceptual-cognitive expertise in sport: a meta-analysis", *Journal of Sport and Exercise Psychology* 29.4 (2007), 457-478.

Tye, Michael, *Ten Problems of Consciousness: A Representational Theory of the Phenomenal Mind,* Cambridge: The MIT Press, 1997.

Tye, Michael, *Consciousness, Color, and Content*, Cambridge: The MIT Press, 2002.

Udehn, Lars, "The changing face of methodological individualism", *Annual Review of Sociology* 28 (2002), 479-507.

Umilta, Maria Alessandra, et al., "I know what you are doing: A neurophysiological study", *Neuron* 31.1 (2001), 155-166.

Umiltà, M. A., et al., "When pliers become fingers in the monkey motor system", *Proceedings of the National Academy of Sciences* 105.6 (2008), 2209-2213.

Vaisey, Stephen, "Structure, culture, and community: The search for belonging in 50 urban communes", *American Sociological Review* 72.6 (2007): 851-873.

Van den Berg, Axel, "Is sociological theory too grand for social mechanisms", in Peter Hedstrom and Richard Swedberg (eds.), *Social Mechanisms: An Analytical Approach to Social Theory,* Cambridge: Cambridge University Press, 1998, 204-237.

Van Gelder, Sarah (ed.), *This Changes Everything: Occupy Wall Street and the 99% Movement*, San Francisco: Berrett-Koehler Publishers, 2011.

Van Gulick, Robert, "A functionalist plea for self-consciousness", *The Philosophical Review* (1988), 149-181.

Vertovec, Steven and Susanne Wessendorf (eds.), *The Multiculturalism Backlash: European discourses, policies and practices*, New York: Routledge, 2010.

Vosniadou, Stella, "The cognitive-situative divide and the problem of conceptual change", *Educational Psychologist* 42.1 (2007), 55-66.

Wacquant, Loïc JD., *Body & Soul: Notebooks of an Apprentice Boxer,* Oxford: Oxford University Press, 2004.

Waldron, Jeremy, "Minority cultures and the cosmopolitan alternative", *University of Michigan Journal of Law Reform* 25 (1991), 751-794.

Waldron, Jeremy, "Multiculturalism and mélange", *Public Education in a Multicultural Society* 102 (1996), 90-118.

Walker, Arlene S., "Intermodal perception of expressive behaviors by human infants", *Journal of Experimental Child Psychology* 33.3 (1982), 514-535.

Ward, Thomas B., "Cognition, creativity, and entrepreneurship", *Journal of Business Venturing* 19.2 (2004), 173-188.

Ward, Thomas B., Merryl J. Patterson, and Cynthia M. Sifonis, "The role of specificity and abstraction in creative idea generation", *Creativity Research Journal* 16.1 (2004), 1-9.

Ward, Thomas B., Steven M. Smith, and Jyotsna Vaid, "Conceptual Structures and Processes in Creative Thought", in Thomas B. Ward, Steven M. Smith, and Jyotsna Vaid (eds.), *Creative Thought: An Investigation of Conceptual Structures and Processes,* American Psychological Association, 1997.

Ward, Thomas B., Steven M. Smith, and Jyotsna Vaid (eds.), *Creative Thought: An Investigation of Conceptual Structures and Processes,* American Psychological Association, 1997.

Ward, Thomas B., et al., "Creative Cognition", in Robert J. Sternberg (ed.), *Handbook of Creativity*, Cambridge: Cambridge University Press, 1999.

Warneken, Felix and Michael Tomasello, "Altruistic helping in human infants and young chimpanzees", *Science* 311.5765 (2006), 1301-1303.

Waterman, Laura and Guy Waterman, *Yankee Rock & Ice: A History of Climbing in the Northeastern United States*, Harrisburg: Stackpole Books, 2001.

Watson, Matt, "How theories of practice can inform transition to a decarbonised transport system", *Journal of Transport Geography* 24 (2012): 488-496.

Wawro, Gregory J. and Eric Schickler, *Filibuster: Obstruction and Lawmaking in the U.S. Senate,* Princeton: Princeton University Press, 2013.

Wedeen, Lisa, "Conceptualizing culture: Possibilities for political science", *American Political Science Review* 96.04 (2002), 713-728.

Wegner, Daniel, *The Illusion of Conscious Will,* Cambridge: The MIT Press, 2002.

Wegner, Daniel M. and Betsy Sparrow, "The Puzzle of Coaction", in Don Ross (ed.), *Distributed Cognition and the Will: Individual Volition and Social Context,* Cambridge: The MIT Press (2007)

Wegner, Daniel and Thalia Wheatley, "Apparent mental causation: Sources of the experience of will", *American Psychologist* 54.7 (1999), 480-492.

Weick, Karl E., "The collapse of sensemaking in organizations: The Mann Gulch disaster", *Administrative Science Quarterly* 38.4 (1993), 628-652.

Weisberg, Jill, Miranda Van Turennout, and Alex Martin, "A neural system for learning about object function", *Cerebral Cortex* 17.3 (2007), 513-521.

Wellman, Barry, "Network analysis: Some basic principles", *Sociological Theory* 1.1 (1983), 155-200.

Wexler, Bruce E., *Brain and Culture: Neurobiology, Ideology, and Social Change*, Cambridge: The MIT Press, 2008.

Whittington, R., "Putting Giddens into Action: Social Systems and Managerial Agency", *Journal of Management Studies* 29 (1992), 693–712.

Wicker, Bruno, et al., "Both of Us Disgusted in *My* Insula: The Common Neural Basis of Seeing and Feeling Disgust", *Neuron* 40.3 (2003), 655-664.

Widick, Richard, "Flesh and the Free Market: On Taking Bourdieu to the Options Exchange", in David L. Swartz and Vera L. Zolberg (eds.), *After Bourdieu: Influence, Critique, Elaboration,* Dordrecht: Kluwer Academic Publishers, 2004, 193-237.

Wiley, Norbert, "Pragmatism and the Dialogical Self", *International Journal for Dialogical Science* 1 (2006), 5-21.

Williams, Lawrence E. and John A. Bargh, "Experiencing physical warmth promotes interpersonal warmth", *Science* 322.5901 (2008), 606-607.

Williams, Lawrence E., Julie Y. Huang, and John A. Bargh, "The scaffolded mind: Higher mental processes are grounded in early experience of the physical world", *European Journal of Social Psychology* 39.7 (2009), 1257-1267.

Willis, Paul E., *Learning to Labour: How Working Class Kids Get Working Class Jobs,* New York: Columbia University Press, 1977.

Wilson, Margaret, "How did we get from there to here? An evolutionary perspective on embodied cognition", in Paco Calvo and Toni Gomila (eds.), *Handbook of Cognitive Science: An Embodied Approach,* San Diego: Elsevier, 2008, 375-388.

Wilson, Nicole L. and Raymond W. Gibbs Jr., "Real and imagined body movement primes metaphor comprehension", *Cognitive Science* 31.4 (2007), 721-731.

Winawer, Jonathan, "Common mechanisms for processing of perceived, inferred, and imagined visual motion", *Journal of Vision* 5.8 (2005), 491-491.

Wisniewski, Edward J., "Conceptual Combination: Possibilities and Esthetics", in Thomas B. Ward, Steven M. Smith, and Jyotsna Vaid (eds.), *Creative Thought: An Investigation of Conceptual Structures and Processes,* American Psychological Association, 1997.

Wittgenstein, Ludwig, *Remarks on the Philosophy of Psychology*, ed. G.E.M. Anscombe and G.H. von Wright, Oxford: Oxford University Press, 1980.

Wittgenstein, Ludwig, *Philosophical Investigations*, trans. G.E.M. Anscombe, Oxford: Oxford University Press, 1998 [1953].

Woehrle, Lynne M., "Claims-making and consensus in collective group processes", *Research in Social Movements, Conflicts and Change* 24 (2002), 3-30.

Wolfe, Ross, "Internal tensions within Occupy Wall Street: The Demands working group and the Drummers' working group", rosswolfe.wordpress.com, WordPress, Oct 10, 2011. Web. Accessed Dec 26, 2013.

Wright, Georg H. Von, *Explanation and Understanding*, Ithaca: Cornell University Press, 1971.

Yeh, Wenchi and Lawrence W. Barsalou, "The situated nature of concepts." *The American journal of psychology* (2006), 349-384.

Yu, Ning, "The eyes for sight and mind", *Journal of Pragmatics* 36.4 (2004), 663-686.

Zammito, John H.*, A Nice Derangement of Epistemes: Post-positivism in the Study of Science from Quine to Latour,* Chicago: University of Chicago Press, 2004.

Zemach, Eddy M., "Meaning, the Experience of Meaning and the Meaning-blind in Wittgenstein's Late Philosophy", *The Monist* 78.4 (1995), 480-495.

Zhong, Chen-Bo and Katie Liljenquist, "Washing away your sins: Threatened morality and physical cleansing", *Science* 313.5792 (2006), 1451-1452.

Zhu, Jing, "Reclaiming Volition: An Alternative Interpretation of Libet's Experiment", *Journal of Consciousness Studies* 10.11 (2003), 61–77.

Ziff, Paul, *Semantic Analysis,* Ithaca: Cornell University Press, 1967.

Zwaan, Rolf A., Robert A. Stanfield, and Richard H. Yaxley, "Language comprehenders mentally represent the shapes of objects", *Psychological Science* 13.2 (2002), 168-171.

Zwaan, Rolf A., et al., "Moving words: Dynamic representations in language comprehension", *Cognitive Science* 28.4 (2004), 611-619.