



# A Field Guide to Social Construction

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## Abstract

A wide range of discussions throughout the humanities and social sciences include claims that various phenomena are “socially constructed.” Many academics associate “social constructionism” with the so-called “science wars” in which social constructionism is identified with some sort of radical anti-realism about reality in general, or the findings of science in particular. But the move to radical anti-realism is only one way to develop the central idea of constructionism – that human decision and human culture exert profound and often unnoticed influence – and much of this work remains interesting and provocative within a broadly naturalist and realist framework. Here the author reviews and explores a variety of constructionist claims, including the plausible suggestion that social constructionist hypotheses have special purchase in discussions of human kinds.

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If any term can raise small hairs on the backs of contemporary necks, it is “construction.” (Godfrey-Smith 9)

An enormous amount of work in the humanities and social sciences is organized around the idea that phenomena are “socially constructed.” Things as diverse as quarks and wife abuse are said to be socially constructed, and constructionist positions figure prominently in discussions of race, gender, sexual orientation, emotions, and mental illness.<sup>1</sup> What’s more, important consequences are said to stem from such social construction – consequences that are to shape research in the humanities and social sciences as well as public policy and social movements. But exactly what does it mean to say something is socially constructed?

Many academics associate “social constructionism” with the so-called “science wars” in which social constructionism is identified with some sort of radical anti-realism about reality in general, or the findings of science in particular. If this were all there is to constructionism, then this enormous body of work might have little to offer the philosophical naturalist that looks to science as a central, if sometimes fallible, way of knowing the world. But the move to radical anti-realism is only one way to develop the central idea of constructionism – that human decision and human culture exert profound and often unnoticed influence – and much of this work remains interesting and provocative within a broadly naturalist and realist framework.

### 1. *What Is It to be Constructed?*

Constructionist claims come from diverse fields of inquiry, and possessing local meanings within those fields. The many separate lives the terminology of “social construction” plays means that any general philosophical treatment of constructionism necessarily involves organizing, clarifying, and in some cases contravening uses of this terminology that exist elsewhere. Ian Hacking has recently suggested that despite the diversity of constructionist claims in their methods and motivations, some unity of content and purpose may be found if we “don’t ask for the meaning, ask what’s the point” (*Social Construction of What?* 5). The point of claiming *X* is a construction, Hacking suggests, is to claim that “*X* need not have existed, or need not be at all as it is. *X*, or *X* as it is at present, is not determined by the nature of things; it is not inevitable” (6).

But what is it to say a thing need not have existed or is not necessary? In some sense, it is possible that both natural objects like stars and artifacts like garters need not have existed, or might have been different than they are had *some* facts been different. Similarly for alphabets, aquifers, cotton candy, cumulonimbus clouds, flint rock, glam rock, the PTA, RNA, video tapes, and the visual system – they might all have had different properties or not have existed given, for example, different physical laws or a different physical history of the universe. The denial of inevitability Hacking points to only makes sense against a background view about what it is that might have made the difference. Social constructionists are particularly interested in phenomena that are contingent upon human culture and human decisions – contingent upon the theories, texts, conventions, practices, and conceptual schemes of particular individuals and groups of people in particular places and times. Some constructionists go further than this and defend specific accounts of how decision and culture play a role in determining some things.

Thinking of constructionism in this general way allows us to recognize the affinity of explicitly “constructionist” accounts with a wide range of work in the social sciences and humanities that abjures the label “social construction” – for example Foucault’s talk of “discursive formations,” Ian Hacking’s discussions of “historical ontology,” Arnold Davidson’s work on “historical epistemology,” and a host of titles that discuss “inventing,” “creating,” or “making up” various phenomena.<sup>2</sup>

Why do these various theorists emphasize the contingency of phenomena? Some theorists defend constructionist views because they believe that they more adequately explain the phenomena than competing views. But many constructionists have more explicitly political or social aims. For this latter group of theorists, revealing the contingency of a thing on our culture or decisions suggests that we might alter that thing through future social choices. It also may indicate our responsibility to do so if the thing in question is unjust. Constructionist accounts of human kinds may also combine these aims, suggesting both a cultural rather than biological explanation for human difference and emphasizing the malleability of the resulting differences in

the face of collective action. While political and social motivations figure as the central motivation for a great deal of constructionist theorizing, in what follows, I largely set them aside, instead focusing on understanding the metaphysical or empirical content of constructionist claims.

## 2. *What Is Constructed?*

It is now common in philosophical discussions of construction to distinguish two different foci of constructionist work: one centered on our ways of thinking about, representing, or modeling the world, and the second centered on parts of the world itself (e.g. Haslanger; Andreassen; Hacking, *Social Construction of What?*; Mallon, “Social Construction”; “Passing, Traveling, and Reality”) – so, for example, Hacking asks us to distinguish between the construction of “ideas” and “objects” (*Social Construction of What?* 21ff). While a great deal of constructionist work concerns the construction of theories, for example, scientific theories, more provocative constructionist claims seem to concern not only theories but the objects that those theories are about. Below, I suggest (following recent work by Hacking) that, whatever conclusions one draws about the social construction of objects in general, there is good reason to think that social constructionism has special purchase in producing particular sorts of objects, *human kinds*.<sup>3</sup>

## 3. *The Social Construction of Theories*

A “theory” as we use it here is some sort of representation of a phenomenon, for example a set of beliefs about a particular phenomenon. This broad characterization includes many different types of theories – for example folk and scientific theories – as well as theories held by an individual, by a cultural group, and so forth.

Central to the “science wars” was the constructionist thesis that scientific theories are not the “natural or inevitable” results of the naked facts or the data. The theories might have been different had human culture or decisions been different.<sup>4</sup> Much of this work is directed at a “textbook” view of scientific theory acceptance as driven primarily by experimental data, a view that Thomas Kuhn famously suggested was as likely to “fit the enterprise” as “an image of a national culture presented in a tourist brochure” (1). Since Kuhn, an explosion of work has been done documenting and interpreting scientific practice, notably within the field of the sociology of scientific knowledge (SSK).<sup>5</sup> Emphasizing background factors in the selection of theories places constructionists in the company of much of the philosophy of science since W. V. O. Quine.<sup>6</sup>

Constructionists accounts of theories typically defend particular views of what (rather than the facts or data) determines the content of accepted theories (or of a particular theory), in many cases producing fascinating and richly detailed works of the practical and historical contexts of theory

acceptance. These studies lead them to more contentious epistemological and metaphysical conclusions when theory constructionists emphasize determinants that they take to be the “wrong kinds of causes” or the “wrong kinds of reasons” for beliefs.<sup>7</sup> In both cases, they take the causes or reasons to be the “wrong kind” because they do not seem to justify the theories ultimately accepted.

The wrong kinds of causes can be seen in accounts of theory acceptance that stress the causal determination of theory acceptance by background factors, for example, in historian Thomas Laqueur’s insistence that, “powerful prior notions of difference or sameness determine what one sees and reports about the body” (21). Laqueur thinks that the interpretation of the data is so dependent upon the background theories accepted by scientists that the data do not strongly constrain the content of the theory. If background culture or theory determines the content of what is accepted, then, Laqueur thinks, it gives us reason to be skeptical of the verisimilitude of the resulting theories.

Many constructionists accounts emphasize a role for individual agency directly, and such accounts often emphasize the determination of the theories we accept by the “wrong kind of reason.” Implicit in these critiques is the view that the right kind of reasons for endorsing a belief are those that justify the belief, increasing its chances of being true, while the wrong kind of reasons do not bear on this relation.<sup>8</sup> In the sociology of scientific knowledge, for example, Andrew Pickering’s work emphasizes the role of intuitive judgments of plausibility and decisions about usefulness in guiding future research as factors that influence the choice of theories. Pickering aims to undermine the “brochure” view of science on which experiment settles everything, and put in its place a view of scientists as agents that choose theories for a host of reasons, many of which bear no obvious justifying relation to the accepted theories.

More critical employment of wrong-kind-of-reason arguments come in a variety of constructionist critiques that suggest the content of theories is determined by the self-interest of the powerful (for example, of the wealthy, or of the white, or of the male) in retaining their power. Charles Mills, for example, suggests that the borders of racial categories were decided in such a way as to

establish and maintain the privileges of different groups. So, for example, the motivation for using the one-drop rule to determine black racial membership is to maintain the subordination of the products of “miscegenation.” (48)

This latter collection of constructionist critiques is driven by the hope of showing that accepted theories do not simply depict natural facts, but rather were chosen because they rationalize injustice.

#### IMPLICATIONS OF THEORY CONSTRUCTIONISM

Many constructionist claims that are apparently about objects can be reinterpreted as primarily about theories. This reinterpretation allows a

deflationary reading of many of the most provocative constructionist claims – claims that are putatively about objects. On this deflationary reading, these claims stem from the (willful or accidental) conflation of a theory or other representation of a thing with the thing itself.<sup>9</sup> While it is quite surprising to think that putatively natural phenomena like sex or race or quarks are the result of our culture or decisions, it is not nearly as surprising to think that our theories and beliefs about these and other phenomena vary sharply from culture to culture.<sup>10</sup>

Some constructionists may wish to resist this deflationary reading, suggesting that recognition of the social construction of our theories should lead us to embrace the social construction of the facts those theories purport to describe. Because these arguments have been carefully and extensively discussed elsewhere, I do not examine them further here.<sup>11</sup> For now we merely note that this anti-realism is only one way of developing theoretical constructionism.

In any case, and however plausible one finds the arguments from theory construction to object construction generally, there is good reason to think that connecting theory construction and objects may have special purchase in the study of human kinds, including “kinds of people, their behaviour, their condition, kinds of action, kinds of temperament or tendency, kinds of emotion, and kinds of experience” (Hacking, *Rewriting the Soul* 351–2). While human culture and decisions have impacts on numerous features of the world, the impacts on humans are *sui generis*. Because humans reflectively theorize about what sorts of things they are, their representations may affect their circumstances and dispositions in ways mediated by their own theorizing. Recognizing this, constructionist accounts of human kinds may explain seemingly natural kinds of person such as race or sex as instances of what Sally Haslanger calls a *discursive construction*. Each member “is the way it is, to some substantial extent, because of what is attributed (and/or self-attributed) to it” (99). On such views, theories of a human kind control features of those classified as members of the kind.

#### 4. *The Social Construction of Human Kinds*

If the social construction of theories is primarily identified with the “science wars,” claims about the social construction of human kinds are primarily identified with what we might call the “human nature wars.”

Cast in Manichean terms, on one side of the dispute are defenders of human nature who insist on a central role for innate human biology and psychology in explaining human traits, including dispositions and behaviors. And on the other side are human kind constructionists who argue that culture and human decision fundamentally shape the human kinds to which we belong. These global positions are powerful in that they guide research programs in more specific domains, domains like morality, the emotions, sexual difference, racial classification, and so forth. Here I consider

three different (though not mutually exclusive) sorts of human kind constructionism that I'll call *construction by individuation*, *social dependence constructionism*, and *social role constructionism*.

#### CONSTRUCTION BY INDIVIDUATION

A characteristic claim of human kind constructionists is that a particular human feature is culturally and historically *local* rather than *universal*. In domain after domain (including the emotions, disease, racial categorization, sexual orientation, and so forth) constructionists insist the relevant phenomena are local to a particular time and place. In contrast, defenders of the importance of human nature often claim that there is a broad range of human universals (e.g., Brown; Pinker).

Prima facie, the argument looks to be over what controls features characteristic of a particular kind. Is it species-typical, biological facts (such as shared DNA) or local, cultural facts (such as the content of transmitted culture)? But appearances can be deceiving. Adjudicating such a dispute in part requires agreeing on just what it takes to qualify as a member of the relevant category. For example, deciding whether homosexuality has existed across many cultures or is a recent phenomenon requires deciding exactly what counts as homosexuality. In general, the more features an instance must possess to count as a bona fide instance of a category – the more “thickly” a phenomenon is individuated – the fewer instances there will be. Moreover, individuating a category in such a way as to require instances stand in a certain relation to particular or culturally local facts thereby entails that instances of the category will also be culturally local.<sup>12</sup> If, for example, we conclude that no one is a bona fide homosexual that does not identify themselves with the label or concept “homosexual,” then there might well be no homosexuals prior to the emergence of labels and concepts for homosexuality in the nineteenth century. If on the other hand, homosexuality is identified more thinly (for example, with a certain disposition toward same-sex sexual relations), then homosexuality can be found much more widely.<sup>13</sup> The crucial thing for present purposes is that achieving constructionist or universalist conclusions via strategies of individuation does not generate competing explanations of particular characteristics or kinds. There is no empirical disagreement, for example, in a universalist identifying a certain pan-cultural set of features as “homosexuality” while a social constructionist reserves the term for a (much more broadly individuated) set of dispositions and relations found only in Europe and America starting in the nineteenth century. The two sides simply pick out different things by “homosexuality.”<sup>14</sup>

#### SOCIAL DEPENDENCE CONSTRUCTIONISM

Putting aside claims about individuation, we might try to consider constructionist claims that seem to offer explanations of particular sorts of characteristics, dispositions, or behaviors. When we do this, it is tempting

to understand the social construction of human kinds as a competing explanation to a nativist one, as when people ask if a trait is “innate or socially constructed.”

Consider what it is for a trait to be innate. While there is much disagreement over how to understand innateness, there is some agreement that innateness requires robust development across a broad range of circumstances.<sup>15</sup> So, for example, the possession of legs and of ears and of the capacity for language are all innate for most humans because they would develop these features across a broad range of developmental environments that vary along many dimensions (e.g., culture, the average temperature, the kind of food, the amount and kind of parental support, and so forth). It is a useful simplification for present purposes to think of such a developmental pattern as a flat *norm of reaction* (see Figure 1), on which the organism develops in the same way across a wide range of environments.<sup>16</sup>

As a number of commentators have noted, this conception of innateness makes innateness a matter of degree, and assessments of innateness on this view also depend on our ability to pragmatically specify the relevant range of environments.<sup>17</sup>

So how might we contrast innateness, thus understood, with social construction? Returning to Hacking’s idea that constructionists are concerned to deny that a thing is “natural and inevitable,” it is tempting to equate the innateness of a thing with its naturalness or inevitability and, in contrast, to equate the constructionist position with the denial of innateness. *Prima facie*, however, some traits may be neither innate nor socially constructed.<sup>18</sup> Consider the trait *being sunburned*. This trait is not innate; it does not develop across a great many environments. But it does not seem to be socially constructed either, precisely because the acquisition of the trait does not seem to be mediated by human culture or decision in any direct way.<sup>19</sup>

We can call the insistence that a trait is so mediated by human culture or decisions *social dependence constructionism*. But, so I will now argue, a weak social dependence constructionism need not be opposed to innateness. To see this, we begin by noting that, in real human development, even highly innate traits will not have perfectly flat norms of reaction. The development of foreskin on the penis is, for example, an innate feature of most human males, developing as it does across wide variations in diet, climate, culture, and so forth. But in a cultural environment in which all infant males are routinely circumcised, adult males typically will not have the trait in question. Including these cultural environments in our range of evaluation, the norm of reaction for male foreskin might look like Figure 2.

Consider a second example. As the result of pioneering work by psychologist Paul Ekman and others, there is now an enormous body of work documenting cross-cultural commonalities in emotional facial expressions, including those for happiness, surprise/fear, sadness, anger, and disgust/contempt.<sup>20</sup> These robust patterns of development suggest that such facial expressions are innate, developing as they do across a broad range of

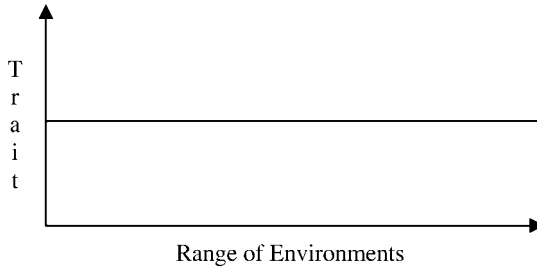


Fig. 1. Flat norm of reaction.

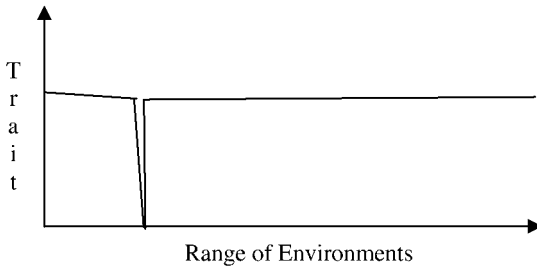


Fig. 2. Robust but changeable norm of reaction.

environments. But drawing on early work by Ekman (“Universals and Cultural Differences”), Paul Griffiths notes that even these “biologically determined” motor responses can be shaped by cultural reinforcement:

In studies of facial expression in Japanese and American students, Ekman and his collaborators found that the Japanese suppressed their facial expressions in the presence of authority figures. They superimposed voluntary muscle movements so as to produce a polite smile. These voluntary movements were initiated so quickly that the initial emotional expressions could be detected only by using frame-by-frame analysis of videotapes. (156)

The Japanese students developed an alternative, reflexive expression in the presence of authority figures, likely as a result of their community’s representations of appropriate responses with a social hierarchy. Like the foreskin, some features of emotional response are innate, but they can nonetheless be modified by culture and human decision. Such is the power and versatility of the human capacity to shape our environments and ourselves that many traits that develop extremely robustly across a wide range of environmental perturbation are nonetheless under the control of our decisions and our culture.

We can see the social and political relevance of such social dependence when we consider sex difference. There is now considerable evidence of early and persisting differences in certain sorts of cognition between males and females, for example, in spatial orientation tasks.<sup>21</sup> A common



interpretation of this data is that “males are innately better than females at spatial orientation tasks.” If we understand innateness as just suggested, this would mean that males robustly develop better spatial reasoning than females across a broad range of environments. Louise Antony argues that this claim is unfounded, since we know almost nothing about the robustness of these traits across a broad range of circumstances (so we know little about the flatness of the norms of reaction).<sup>22</sup> But even supposing there is such a flat norm of reaction, she goes on to point out, “It hardly follows that there are no curricula in which girls do as well as boys, or even better!” (86). Flat norms of reaction are simply regularities. They do not show that different social arrangements cannot result in different outcomes, should we decide that spatial orientation tasks reflect a capacity important to flourishing.

The example of circumcision and emotional expression show that it is possible for a trait to be both socially dependent and innate. Antony’s example of sex differences in spatial cognition shows why this recognition is important, because how we represent ourselves, in particular how we represent what is possible or desirable for creatures like us, may have consequences for how individuals flourish. But recognizing this social dependence is not incompatible with the biological or psychological claim that some important traits are innate. We may well be able to alter innate characteristics if we have the (individual or collective) will.

#### SOCIAL ROLE CONSTRUCTIONISM

Stronger social constructionist claims about human kinds hold not just that the existence or character of the kinds are dependent in some way on culture or human decision, but that the kinds are closely controlled by culture – that as the content of our cultural representations of the kind vary, so does the kind. This amounts to a denial that persons come to be members of the kind, or come to have the properties associated with the kind, innately. The best way to understand many of these constructionist claims is as a form of social role explanation – explanations on which our theory of a certain kind of person shapes a social role for persons classified as members of the kind (Mallon, “Social Construction”). We can understand social roles such that,

- (a) There is a theory that picks out a category of persons *P* and represents them.
- (b) The theory is widely shared by members of the community in which the role exists, as is the knowledge that the theory is widely shared.<sup>23</sup>

Because human kind constructionists aim to offer competing explanations for differential features of kinds of person widely thought to be natural, they are generally interested in social roles with the additional feature that:

- (c) The theory holds that instances of category *P* are members of a kind that naturally possess features, for example biological or psychological features, characteristic of the kind (e.g., dispositions to behave in certain ways).

Social roles are cases in which the widespread theory of a category of persons *P* structures the world in ways that differentiate instances of *P*, and social role theories have been applied for a variety of purposes in social and political theory, psychology, and psychiatry. For example, in social theory, social role accounts have been offered as a way of resisting biological accounts of race and gender, but also in the attempt to resist eliminativism about these categories.<sup>24</sup> But sometimes the emphasis of social role constructionists has been more squarely explanatory. For example, Virginia Valian explains differences in the professional achievement of men and women by offering a host of evidence suggesting that cognitive schemas for gender categories systematically alter the social situations of men and women, biasing our interpretations of their performances in ways that subtly but systematically disadvantage women over time. And in the philosophy of psychology and psychiatry, social role accounts of emotions (Averill, “Constructivist View”; “Emotion and Anxiety”), or social role explanations of multiple personality disorder (e.g. Hacking, *Rewriting the Soul*; Spanos and Burgess) have been offered.<sup>25</sup> In each case, the central idea is that the theory of a kind of person structures the situation or developmental environment of a person in ways that offer alternate explanations of the person’s features.

At the extreme, social role models suggests that culture acts as a kind of *script* that tightly controls behavior, and that can be altered as a way of transforming behavior. For example, Hacking (*Rewriting the Soul*) documents the ways in which changes in the widely held conception of multiple personality disorder throughout the 1980s resulted in behavioral changes among diagnosed multiples – resulted in, for example, the proliferation of more and more “personalities” within each patient (77). These scripted social role accounts suggest that we are mistaken, perhaps radically, about the sources of our own behaviors for they suggest that behaviors that individuals mistakenly believe to result from their own natures (for example, disease or sex-typical behaviors) are in fact *performances* of cultural scripts within social roles. Such accounts seem to assume that possession of a false theory of ourselves can result, in some direct way, in failures of self-knowledge. And they position themselves to alter or subvert these social roles by revealing what they claim is the true source of the structure we find in our social environments and ourselves: theories of ourselves produced by our own highly contingent history, culture, decisions, and social arrangements.

## 6. Further Directions

Talk of social constructions has been a provocative, if sometimes confusing, spur to consider historical, cultural, and personal details that shape our theories, our social worlds, and ourselves. In both the case of theories and of human kinds, at the heart of constructionist theorizing is a cluster of explanatory views about what determines the constructed phenomena.

Developing such explanatory accounts leaves us with a variety of additional questions – too many to pursue here. Instead, I simply note that once we view constructionist approaches as explanatory theses about the relationships between human culture or decisions and particular phenomena, we discover that there is ample room for investigating novel combinations of constructionist and non-constructionist theses in the investigation of both theories and human kinds.

Recent work on racial categorization illustrates this point nicely. As we noted above, social constructionists about racial theories have suggested that racial categories are determined not by the observation of real biological race (for constructionists, like most racial theorists, think races are not genuine biological kinds), but instead by various historical, cultural, and social facts. Recent work on racial categorization in cognitive and evolutionary psychology has, like constructionism about racial theories, begun with the falsity of biological theories of race. But in contrast to constructionists' emphasis on cultural determinants of folk racial theories, these psychologists posit a role for innate psychological propensities to categorize persons in particular ways (e.g. Hirschfeld; Kurzban et al.; Gil-White; Machery and Faucher). The relationship of such accounts (growing out of cognitive and evolutionary psychology) to more traditional constructionist work in the social sciences and humanities has barely been considered, with social constructionists about racial categorization either opposing (e.g., Hacking, "Why Race Still Matters"; Taylor), or more often ignoring, them. This may be, at least in part, because such nativism about theories cuts against the grain of social constructionism about human kinds.

But while nativist accounts of folk theories of race may compete with constructionist explanations, they might also be combined into accounts emphasizing a variety of factors – both social and psychological – leading to folk racial theorizing. And in any case, there is no reason that that human kind constructionism about race cannot be paired with alternate accounts – including nativist accounts – of racial theories. Such accounts might hold that psychological predispositions contribute to the formation of racial social roles that have played an important role in racial oppression.

The example of racial theories and racial human kinds offers only one example of how various sorts of constructionist and non-constructionist theories might be combined, but once we allow for such options, we may quickly entertain other combinations. For example, constructionist accounts of human kinds often involve a quite general denial of biological accounts of those same kinds, but this need not be necessary. Consider the case of sex. Even if one holds that biological sex typically has certain effects on psychological dispositions and behavior, one might still insist on a particular account for some difference or set of differences. If we follow Valian in allowing that the world we face offers systematically different circumstances to males and females due to the gendered cognitive schemas that we all use to understand and interact with the world, we have all the resources we

need to offer a constructionist explanation of many explananda whether or not we think biology produces gender difference more generally. To pursue the constructionist explanation, we need only deny that biological sex offers a complete explanation of some particular explananda (in Valian's case, professional achievement). We need not insist that there is no effect of biological sex whatsoever.

These combinations of constructionist and non-constructionist accounts suggests just how complicated things can become. But there is reason to think things are very much more complicated still, for various theoretical domains and various human kinds are different – both psychologically and sociohistorically. As a result, there is much work to be done to understand how transmitted culture interacts with the specific psychological mechanisms operating in each case. This is work that has barely begun, but it offers fresh possibilities for understanding the role of culture in shaping our social world and for understanding the possibilities for transforming this world.

### *Short Biography*

Ron Mallon's research concerns the relationship of culture and the mind, and draws on work in social psychology, cognitive science, social and political theory, and the philosophy of science. He has authored or co-authored papers in *Cognition*, *Ethics*, *Journal of Political Philosophy*, *Noûs*, *Philosophy of Science*, *Social Neuroscience*, and *Social Theory and Practice*. Current research includes attempting to understand social constructionist claims (especially those about race), work in experimental philosophy (especially moral psychology), and work in the philosophy of cognitive science. He holds a B.A. from the University of Kansas, a Ph.D. from Rutgers University, and he has been the recipient of a Charlotte W. Newcombe Doctoral Dissertation Fellowship, a Research Assistant Professorship at Hong Kong University, and a Visiting Fellowship at Princeton University, Center for Human Values. He is currently an Associate Professor in the Department of Philosophy at the University of Utah.

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### *Notes*

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<sup>1</sup> See Pickering on quarks; Loseke on wife abuse. See Mills and Outlaw for constructionist accounts of race; Kessler and McKenna for gender; Foucault, McIntosh, or Padgug on sexual orientation; Averill, "Constructivist View" and "Emotion and Anxiety" on the emotions; Hacking 1995,

Scheff, Showalter, or Spanos and Burgess on mental illness. Not all of these authors label their accounts “constructionist,” but they all count as constructionist in one or more of the senses discussed below.

<sup>2</sup> Foucault, *Archaeology of Knowledge*; Hacking, *Historical Ontology*; Davidson. See, e.g., Laqueur.

<sup>3</sup> Hacking, “Making Up People”; “Making and Molding”; “World Making”; *Rewriting the Soul*; “Looping Effects”; *Mad Travelers*; *Social Construction of What?*. The term “human kind” is used by Hacking (“Looping Effects”), but he has now abandoned it (“Why Race Still Matters”). If we understand human kinds as objects, we must mean that they are particular, spatiotemporally extended objects. That is, the human kind *diabetic* is simply all diabetics. As a particular, this object can be causally affected, for example by particular theories of diabetes. We can also talk about individual persons with diabetes as members of the kind. Alternately, we could adopt a vocabulary on which kinds were types, instantiated by individuals as a result of the individuals being causally effected by certain representations. In what follows, I stick to the former way of speaking, but nothing hangs on it.

<sup>4</sup> As Peter Godfrey-Smith points out, this reading of constructionism includes both realists and empiricist philosophers of science among its targets (161).

<sup>5</sup> For example, Bloor; Pickering; Woolgar.

<sup>6</sup> Quine, “Two Dogmas”; Quine and Ullian. Indeed, some sociologists of scientific knowledge explicitly draw on post-Kuhnian philosophy of science (e.g., Pickering ch. 1).

<sup>7</sup> The phrase the “wrong kind of reason” is found mostly in discussions of reasons for values (e.g., Olson). Here, I follow Pamela Hieronymi in using the phrase to contrast with “appropriate” reasons for *beliefs*. As she, following others, observes, “there is a quite general problem about identifying the appropriate reasons for attitudes, a problem that is not restricted to reasons for those attitudes involved in valuing” (438 fn2).

<sup>8</sup> Contrasting the “wrong kind of reason” with the “wrong kind of cause” is not meant to imply that reasons are not causes.

<sup>9</sup> When, for example, we consider the title of Laqueur’s book *Making Sex*, or we consider his claim that there is an “unstable female body” (22), we realize that these claims are not really about sex and the female body, but rather about creation of and changes in our theories of sex and the female body.

<sup>10</sup> See Hacking, *Social Construction of What?* 24ff.

<sup>11</sup> See Boyd, “Confirmation”; “Constructivism”; Nelson; Fine; Godfrey-Smith; Hacking, *Social Construction of What?*; Kitcher; Kukla; Boghossian.

<sup>12</sup> One avenue for achieving such individuation is via implicit assumptions regarding the theory of meaning and reference (Mallon and Stich; Mallon, “Race”).

<sup>13</sup> For more on constructionist and biological views of homosexuality, see Stein, “Conclusion”; *Forms of Desire*; *Mismeasure of Desire*.

<sup>14</sup> See Mallon and Stich for a case study of such a dispute over the emotions. See Pinker (38) and Boghossian (28) for recognition that such disputes are merely semantic.

<sup>15</sup> Stich; Ariew; Sober; Mallon and Weinberg; and possibly Samuels all incorporate some version of this condition. Disagreement lingers over how to handle the fact that some traits that are not innate develop invariantly, but this need not worry us here.

<sup>16</sup> Though there are problems with this, notable that such a two-dimensional depiction does not allow a way of depicting developmental time, so it cannot, for example, depict critical periods of development (Ariew, “Innateness and Canalization”).

<sup>17</sup> Ariew, “Innateness and Canalization” S25; Sober section 1; Mallon and Weinberg.

<sup>18</sup> One might think, pace extreme theory constructionism, that at least some beliefs are traits like this. For example, it is plausible that one can acquire *the belief that ice is cold* directly from the environment.

<sup>19</sup> Even a wild aardvark can be sunburned.

<sup>20</sup> Ekman, “Are There Basic Emotions?”

<sup>21</sup> See Kimura ch. 5 for a review.

<sup>22</sup> Though what we do know is not promising: sex differences in imaginal rotation have been found in Africans, East Indians, and Asians (though not among the Inuit) (Kimura 62–3). Antony goes beyond drawing attention to our ignorance, attacking the supposition that the selection of relevant environments (for our norm of reaction) is itself free of self-serving bias (82–3).

<sup>23</sup> This is a version of Lewis’s “common knowledge.”

<sup>24</sup> See Mallon, "Passing, Traveling, and Reality"; "Race"; "Human Categories" for discussion.

<sup>25</sup> Multiple personality disorder was renamed "dissociative identity disorder" in the DSM-IV.

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