

How Time Brings Together “I” and “We”: A Theory of Identification Through Memory

Ozgur Ekmekci
Andrea Casey
The George Washington University

ABSTRACT

Drawing on social identity theory, we suggest a cognitive model of organizational identification grounded in memory. We argue that organizational identification takes place in working memory and that this process may be subject to influences such as frequency of interaction with other members of the organization; frequency of information received about the information; the primacy effect; and the recency effect. We encourage scholars to investigate organizational identification over time.

Introduction

The origins of organizational identification can be traced back to discussions grounded in the social identity approach (Haslam, 2002). The social identity approach has produced two related yet distinct theories: (1) social identity theory (Tajfel, 1981; Tajfel & Turner, 1979, 1985; Turner, 1982) and (2) self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Social identity theory focuses mainly on intergroup attitudes and established collective behavior in relation to individuals' self-definition, whereas self-categorization theory is primarily concerned with processes taking place within groups that have the potential to influence individuals' identification (vanDijk, Wagner, Stellmacher, Christ, & Tissington, 2005).

Social identity theory predicts that individuals will try to establish or enhance positive self-esteem through group memberships that create a favorable differentiation between their in-group and relevant out-groups (Tajfel & Turner, 1979). Self-categorization theory predicts that individuals, through the process of categorization, compare their self with others (i.e., personal level), their groups with other groups (i.e., group level), and their kind with other kinds (i.e., superordinate level) (Turner et al., 1987). When combined, these two theories suggest that membership in an organization has the potential to govern individuals' attitudes and behaviors, since membership is a part of an individual's self-definition (vanDijk et al., 2005). In other words, the more an individual identifies with an organization, the more likely he or she will act in ways that benefit the organization (Fuller, Marler, Hester, Frey, & Relyea, 2006; Pratt, 1998; Tompkins & Cheney, 1985). At the same time, too much identification may, in some cases, lead to stereotyping and degrading of out-group members (Tajfel, 1981), as well as to overconformity, inflexibility, hostility, and reduction of creativity (Ashforth & Mael, 1996; Dukerich, Kramer, & Parks, 1998).

Since its introduction, the construct of organizational identification has been extensively studied due to its mostly positive influence on members' acceptance of and support for organizational goals (Edwards, 2005). The construct has significant implications across all levels of analysis (Kreiner & Ashforth, 2004) and continues to generate great interest (Fuller et al., 2006).

However, an examination of literature on organizational identification, spanning the last few decades, reveals a "considerable disagreement about [its] nature, meaning and measurement" (Edwards, 2005, p. 208). The reason for this disagreement may relate to the theoretical lens, in that scholars have been conceptualizing the construct as a static process suspended in time.

Research on organizational identification can be advanced by viewing the phenomenon as a dynamic process. One of the most prominent invitations for such a change came from Pratt (1998), who called for the investigation of how organizational identification occurs over time. He stated that the issue was the "least understood of all of the central questions of organizational identification" (Pratt, 1998, p. 200). A similar invitation came from Ashforth, who said the topic was one of two "particularly seminal issues for future research and speculation" (1998, p. 271). A strong temporal focus was also present in Dutton, Dukerich, and Harquail's (1994) suggestion that literature on organizational identification should "elaborate how future and past images of the organization connect to a member's self-concept and direct his or her behavior" (1994, p. 258). Guided by such calls, we attempt to fill a gap in the organizational identification literature by describing the role memory plays in the process—since memory can provide the lens for examining these temporal qualities.

Various studies have discussed individual antecedents of organizational identification, such as satisfaction with an organization, organizational tenure, sentimentality, and number of similar organizations to which one holds membership (Mael & Ashforth, 1992); role in the organization, extent of exposure to the external image of the organization, extent of exposure to organizational identity, and amount of information received from the organization (Smitds, Pruyn, & vanRiel, 2001); level of contact with the organization (Bhattacharya, Rao, & Glynn, 1995); age (Riketta, 2005); perception of favorable leadership attributes embedded in supervisor behavior (vanDijk, Hirst, Grojean, & Wieseke, 2007); degree of uncertainty in a member's organizational life (Hogg & Terry, 2000); amount of communication with the organization (Scott, 2007); and the intensity and duration of contact with the organization through daily interactions (Dutton et al., 1994). While these studies provide valuable insights into factors that influence the strength of identification, they do not shed much light on *how* or *where* the *process of identification* takes place. Our proposed model complements the findings of these studies by providing a temporal perspective on how an individual characteristic—namely, memory—may influence the process of organizational identification.

We begin our discussion of the proposed model by defining organizational identification as a cognitive process and briefly present literature that informs our discussion. We then deconstruct the definition of organizational identification to build six propositions

that are grounded in findings from neuropsychology and predictions from social identity theory. Finally, we argue that future research should investigate organizational identification as a dynamic process that unfolds over time, implicating memory as a critical factor.

Organizational Identification

Interest in organizational identification continues to build, as more and more research shows that organizational identification is a key construct in organizational behavior (Fuller et al., 2006; Kreiner & Ashforth, 2004). Researchers are trying to better understand the dynamics of organizational identification, as it is perceived as a way to secure employees' long-term cooperation (Fuller et al., 2006; Wiesenfeld, Raghuram, & Garud, 1999).

There are several influential definitions of organizational identification, which relate to the affective, behavioral, and cognitive dimensions of the phenomenon (Pratt, 1998). Furthermore, research (vanDijk, Wagner, Stellmacher, & Christ, 2004) has proposed that "different foci of identification (e.g. with own career, team, organization, occupation) as well as different dimensions of organizational identification (cognitive, affective, evaluative, and behavioral) can be separated" (p. 171). We focus our discussion on the cognitive aspect of the process.

Our propositions are grounded in the definition of organizational identification as "the degree to which a member defines himself or herself by the same attributes that he or she believes define the organization" (Dutton et al., 1994, p. 239). This definition is anchored in both sociocognitive processes that define social identity theory: namely, categorization, which helps one define group boundaries and thus membership to such groups, and self-enhancement, which allows one to favor an in-group through comparisons with out-groups (Hogg & Terry, 2001; Lipponen, Helkama, Olkkonen, & Juslin, 2005; Scott, 2007).

Our theory is framed within the boundaries of categorization. In other words, we focus on how a member seeks identification through referring to the self in terms of organizational membership (Ashforth & Mael, 1989), while we emphasize that organizational identification is both a process and an outcome. The process is guided by the congruence of the answers to two questions: "Who am I?" and "Who are we?" (Foreman & Whetten, 2002). As Albert, Ashforth, and Dutton (2000) stated, "Whether an organization, a group, or person, each entity needs at least a preliminary answer to the question 'Who are we?' or 'Who am I?' in order to interact effectively with other entities" (p. 13).

Within this context, the overlap of attributes used in describing perceived self-identity (by answering the question "Who am I?") and attributes used in describing perceived organizational identity (by answering the question "Who are we?") determines the strength of organizational identification (see Figure 1). It is important to note that less congruence between the individual and organizational attributes leads to less

identification for an in-group member (or simply nonidentification in the event of no congruence) and not disidentification, which is distancing oneself from an out-group based on conscious refusal of membership (Dukerich et al., 1998; Elsbach & Bhattacharya, 2001).

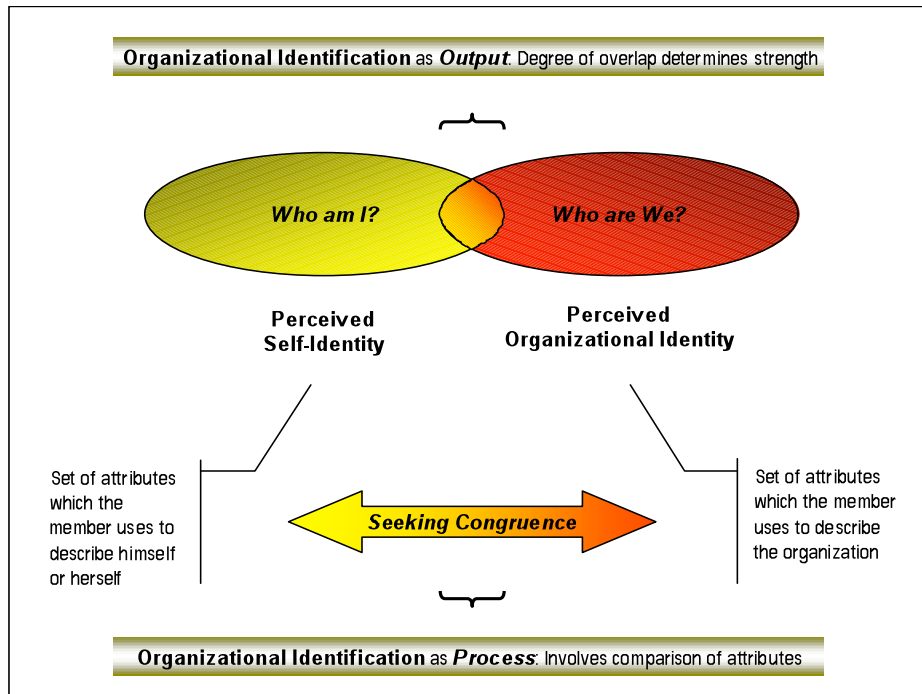


Figure 1. Deconstructing organizational identification.

A Member’s Perception of the Self and the Organization

Nobel Prize winner Eric Kandel (2006) has suggested that memory, as encoded in the brain’s neuronal circuits, is what makes us who we are. Almost all seminal work on self-identity is grounded (Dukerich et al., 1998; Elsbach & Bhattacharya, 2001) in Erik Erikson’s (1956, 1968) concept of identity, which evolves around one’s feelings with respect to character, goals, and values. Indeed, one’s perceptions regarding his or her self-identity greatly depend on the “capacity to represent the self as a psychologically coherent entity persisting through time, whose past experiences are remembered as belonging to its present self” (Klein, Loftus, & Kihlstrom, 2002, p. 353). Jaques elaborated on this temporal continuity by stating, “The particular organization of memory, perception, desire, and intention in each person sets the limits of personal identity and of meaning and defines the individual self” (1982, p. 104).

What comprises the core of this consolidated representation is “a configuration of central traits” (Oksenberg & Wong, 1993, p. 19). Using the same analogy for perceived organizational identity—defined as “a member’s beliefs about the distinctive, central, and enduring attributes of the organization” (Dutton et al., 1994, p. 244)—it could be

suggested that members consider certain attributes about their organization to be distinctive, central, and enduring (Albert & Whetten, 1985) to the extent that they believe these attributes guide policies, decisions, and actions; remain the same across different organizational levels, interorganizational dealings, and community relationships; dominate situations of intraorganizational conflict and large-scale crisis; suppress other conflicting attributes; and imply that the organization has fundamentally changed in the event that they are either lost or significantly modified (Whetten, 2006). It has been suggested that members' level of involvement with an organization is greatly influenced by not only the perceived gap between their identity and that of the organization, but also the perceived gap between the current and the ideal organizational identity, as conceived by the same members (Foreman & Whetten, 2002)—which presents another compelling reason to investigate the temporal dimension of organizational identification.

Another important dimension of the identification process is clearly identifying the sources on which these perceptions are based. Past memories of self comprise the main sources of a member's perceived self-identity (Bruner, 1994; Greenwald, 1981; Grice, 1941; James, 1890; Jaques, 1982; Kihlstrom, Chew, Klein, & Niedenthal, 1988; Klein et al., 2002; Levine et al., 1998; Locke, 1979; Nelson, 1993; Quinton, 1962; Singer & Salowey, 1993; Tessler & Nelson, 1994; Tulving, 1984). Meanwhile, the major sources that a member relies on when constructing the perceived identity of the organization seem to be interactions with other members (Dutton et al., 1994; March & Simon, 1958); interpersonal relationships (Ashforth & Sluss, 2006; Bartel, 2001; Bergami & Bagozzi, 2000; Sluss & Ashforth, 2007); formal and informal communications (Bullis & Bach, 1991; Cheney, 1983; Gossett, 2000; Grice, Paulsen, & Jones, 2002; Kuhn & Nelson, 2002; Myers & Kassing, 1998; Scott & Timmerman, 1999; Wiesenfeld et al., 1999); and information received from the environment regarding the organization's image (Dukerich, Golden, & Shortell, 2002; Dutton & Dukerich, 1991; Dutton et al., 1994; Elsbach & Kramer, 1996; Mael & Ashforth, 1992; Mael & Tetrick, 1992). Therefore, these findings suggest that, while perceived self-identity is based on memories of the self, a member's choice of attributes when describing the identity of the organization greatly depends on his or her recollection of (1) interactions with other members of the organization and (2) information received about the organization.

Perceived Self-Identity, Perceived Organizational Identity, and Memory

Since the first body of work appeared speculating on the different types of memory (James, 1890), theoretical work and research in the fields of neuropsychology and functional neuroimaging have established that two different types of memory are used to construct identity: episodic memory and semantic memory (Klein et al., 2002). Both are part of declarative memory (Winograd, 1975), which constitutes one's "fund of factual knowledge about the world; factual knowledge [that] can be represented as sentence-like propositions" (Klein et al., 2002, p. 72). This portion of memory is different from procedural memory (Anderson, 1983), which holds one's "cognitive repertoire of rules and skills, by which [that person can] manipulate and transform declarative knowledge" (Klein et al., 2002, p. 72).

An important distinction between declarative and procedural knowledge—although both are part of long term memory—is that procedural knowledge does not hold any references to identity (Klein et al., 2002) and is unavailable to direct conscious introspection (Kihlstrom, 1987). What this implies is that declarative memory, which embodies episodic and semantic memory, is the main source of memory for constructing perceived self-identity and perceived organizational identity. While both episodic and semantic memory can receive information for storage via multiple sensory modalities, are accessible to introspection, and allow retrieval through various queries and routes, the main difference between the two is that “episodic memory is concerned with remembering, whereas semantic memory is concerned with knowing” (Tulving, 2001, p. 278). It is also important to note that “every episodic memory, by definition, entails a mental representation of the self as the agent or patient of some action,” whereas “much semantic memory makes no reference to the self at all” (Kihlstrom, Beer, & Klein, 2002, p. 72).

Self-identity is considered self-representation in the form of episodic and semantic memory (Kandel, 2006; Tulving, 1983). Furthermore, self-identity can be viewed as the combined product of auto-noetic awareness, or remembering, and noetic awareness, or knowing (Duzel, Yonelinas, Mangun, Heinze, & Tulving, 1997). Therefore, the perceived self can be conceptualized as a consolidated product of what is remembered and what is known about the self.

Similarly, perceived organizational identity may be conceptualized as a consolidated product of what is remembered and what is known about the organization. An individual would retrieve his or her interactions with other members of the organization from episodic memory. What is known about the organization—such as formal and informal communications received from the organization, or information received from the environment regarding the organization—would most likely be stored in semantic memory.

One could argue that a greater pool of attributes stored in members’ episodic and semantic memory—through more frequent interactions with members and more frequent information received about the organization—would give members a richer spectrum from which to choose when constructing the perceived identity of the organization. Hence, the level of identification with the organization might be higher, as the chance of finding organizational attributes to which the member can relate will also be greater.

An important point to keep in mind is that, while one may recall organizational interactions or information that is subjectively perceived as negative as well as positive, the process of identification is based on seeking congruence between perceived personal and perceived organizational values. An organizational member is more likely to find organizational values that overlap with personal values if he or she is exposed to a broader representation of the organization, even if that included negative interactions or information. As a matter of fact, there is a positive relationship between the degree of individuals’ interpersonal contacts in an organization and the level of their identification

(Mael & Ashforth, 1992; Mowday, Porter, & Steers, 1982; Rotondi, 1975). According to Lipponen et al. (2005), this relationship suggests that “the greater the social interaction, the more social ties the individual develops with the organization and, as a result, the more closely linked he or she becomes” (p. 101).

Therefore, we propose that the amount of information stored in episodic and semantic memory—which is directly related to the frequency of input—is likely to affect the way perceived organizational identity is constructed in memory. In that sense, we propose that the strength of organizational identification emerges in working memory—based on present recollections of the past that are pulled from episodic and semantic memory—when one cognitively seeks congruence between personal and organizational values. Furthermore, we propose that this sense is likely not stored in long-term memory but is reconstructed in the present moment each time one thinks about the degree of identification with the organization.

Proposition 1a: The more frequently a member interacts with other members of the organization over time, the more information (about the organization) will be coded in episodic memory.

Proposition 1b: Greater amounts of information (about the organization) encoded in episodic memory, which become available for use (by working memory), will lead to higher levels of organizational identification, as a greater pool of information will present the member more congruent data from which to choose.

Proposition 2a: The more frequently a member receives or gathers information about the organization over time, the more information (about the organization) will be coded in semantic memory.

Proposition 2b: Greater amounts of information (about the organization) encoded in semantic memory, which becomes available for use (by working memory), will lead to higher levels of organizational identification, as a greater pool of information will present the member more congruent data from which to choose.

Proposition 3: The strength of organizational identification is not stored and recalled from the declarative portion of long-term memory but emerges from working memory in the present moment based on information retrieved from episodic and semantic memory.

Primacy and Recency Effect

When speculating about the process of identification, it is important to account for two important temporal variables: the primacy effect and the recency effect. These terms refer to observations derived mainly from clinical experiments, which indicate that people demonstrate a significantly higher rate of remembering for the first few and last few items or events that form a serial pattern over a given period of time (Atkinson & Shiffrin, 1968; Bjork & Whitten, 1974; Carlesimo, Marfia, Loasses, & Caltagirone, 1996;

Glanzer & Cunitz, 1966; Greene, 1986). Regarding organizational identification, the primacy effect could be thought of as a person's first impressions of an organization, and the recency effect could be thought of as the recent experiences regarding the organization that are still fresh in the person's mind.

Based on clinical experiments (Atkinson & Shiffrin, 1968; Craik & Birtwistle, 1971; Craik & Levy, 1970; Davelaar & Usher, 2003; Howard & Kahana, 1999; Kahana, Howard, Zaromb, & Wingfield, 2002), the cutoff points for the primacy effect and the recency effect during free recall can generally be assumed to be 20%. This means that the downward slope for the primacy effect usually starts at around $p = 0.7$ and ends at $p = 0.2$, just like the upward slope for the recency effect starts at $p = 0.2$ and ends at $p = 1.0$. Furthermore, the primacy effect tends to be shorter and weaker than the recency effect, which means that the duration of the primacy effect will be shorter. In summary, the probability of recall from memory during the process of identification will be in accordance with the probabilities imposed by the U-shaped curve.

At any given point in time ($t = T$), the duration of the primacy effect starts at $t = 0$, which is when an individual joins an organization, and ends at $t = TP$, which is the point on the serial recall curve where the probability of recall is 20% on the downward slope, along the axis of intention. Similarly, the duration of the recency effect starts at $t = T - TR$, which is the point on the serial recall curve where the probability of recall is 20% on the upward slope and ends at $t = T$ along the same axis (see Figure 2).

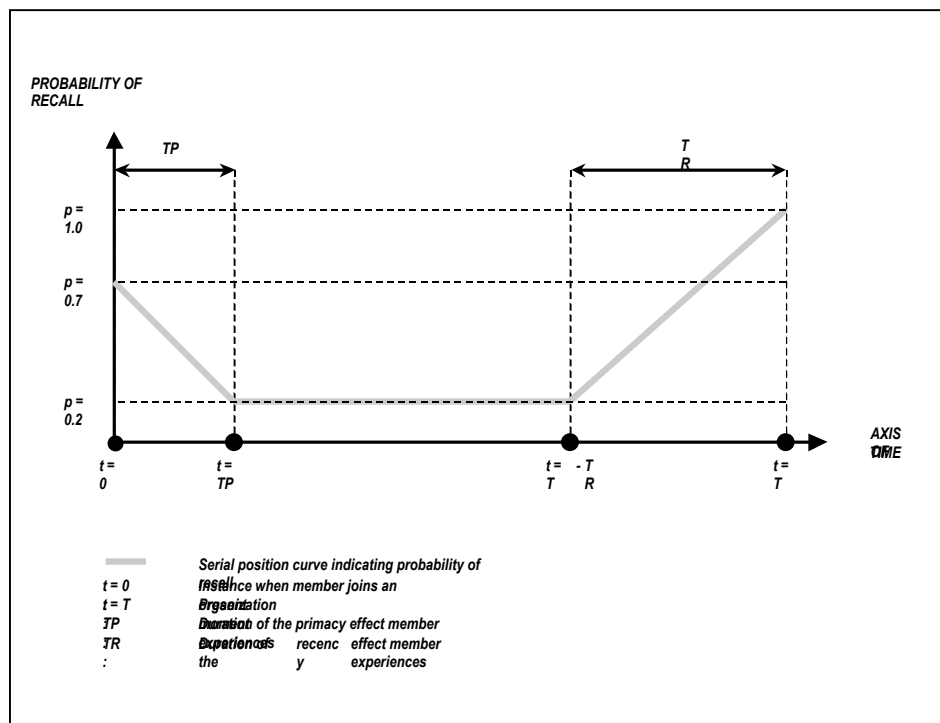


Figure 2. Duration of primacy and recency along the axis of time.

Since information stored in declarative memory is brought into working memory for processing, anything that affects the scope of such information is likely to affect the outcome of the process. Therefore, the duration of the primacy effect and the duration of the recency effect become intervening variables that can affect how the other two temporal variables—namely, the frequency of interactions with other members of the organization and the frequency of information received about the organization— influence the emergence and strength of organizational identification. The dynamics depicted in Figure 2 imply that greater durations of primacy and recency employed in one's thinking might lead to a richer and broader perspective of perceived organizational identity, through their combined effect on how encoded data are retrieved from memory.

Proposition 4: As a moderator, a longer duration of primacy effect in an individual will result in a higher level of organizational identification.

Proposition 5: As a moderator, a longer duration of recency effect in an individual will result in a higher level of organizational identification.

Short-Term Memory

One additional component of memory might have a significant impact on how organizational identification unfolds from and in memory. This component is referred to as working memory (Baddeley, 2001, 2003), a cognitive system that allows one to “keep a limited amount of information for a brief amount of time” (Smith, 2001, p. 888). This area of the brain is dedicated to processing and temporary content storage (Gibbs, 2006). Information retrieved from other areas of memory, such as declarative memory, is temporarily stored in working memory during the cognitive process and is released afterwards. Based on what is currently known about the way information is processed in and through memory, it might then be suggested that the process of identification, whereby a member seeks congruence between his or her perceived self-identity and that of the organization, takes place in working memory.

Proposition 6: The cognitive process of organizational identification, whereby a member seeks congruence between his or her perceived self-identity and that of the organization, takes place in an area of the brain referred to as working memory.

A Theoretical Model of Organizational Identification in and from Memory

In light of the six propositions presented, the potential dynamics that might exist among perceived self-identity, perceived organizational identity, organizational identification, memory, interactions with other members of the organization, information received about the organization, and the primacy and recency effect are depicted in Figure 3.

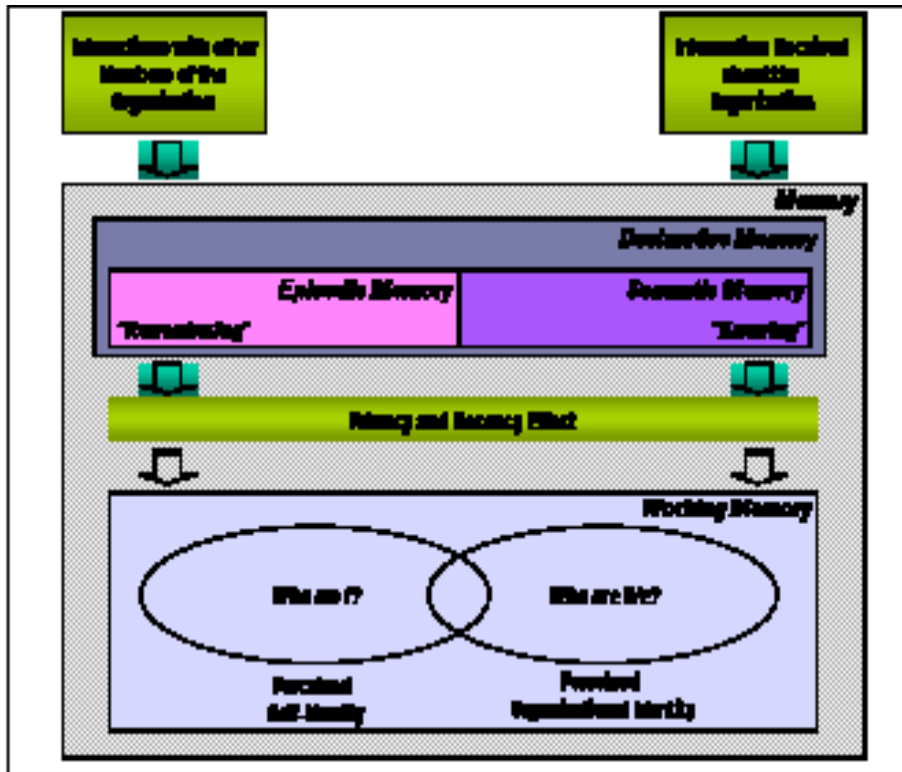


Figure 3. Perceived identities and the process of organizational identification as memory.

As stated earlier, we acknowledge that many other individual antecedents of organizational identification could be present. However, our model focuses on the relationship between memory and the process of identification and suggests that higher frequencies of interaction with other members and information received about the organization, and longer durations of the primacy effect and the recency effect, may lead to stronger member organizational identification over a given period of time. Employing a slightly different perspective, the conceptual relationship of the mentioned temporal variables to the emergence and strength of organizational identification, as the process takes place in and from memory, is illustrated in Figure 4. It is worth noting that the frequency of interaction with other organizational members and the frequency of information received about the organization are largely external elements that can be somewhat manipulated, but the primacy and recency effects are internal elements dependent on the individual's mental faculty.

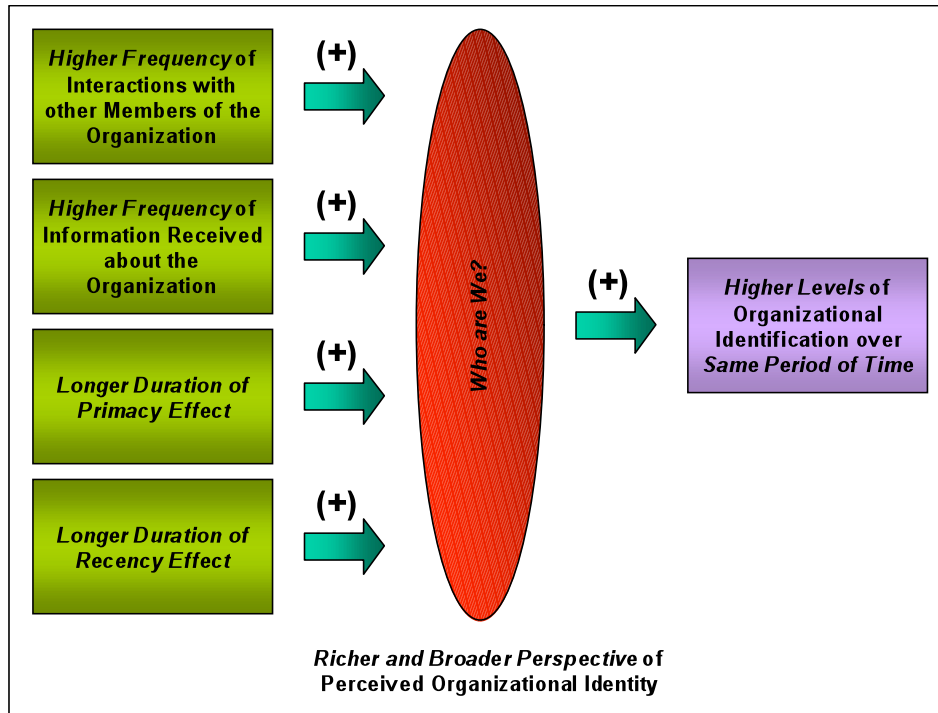


Figure 4. Hypothesized relationship of temporal variables to the emergence and strength of organizational identification over time.

Discussion

In an attempt to fill a gap in theory related to the temporal nature of organizational identification, we synthesized findings and predictions from the memory literature and social identity theory to propose a cognitive model of organizational identification grounded in memory. In our model, the process of organizational identification takes place in working memory and is subject to influences such as frequency of interaction with other members of the organization, frequency of information received about the information, the primacy effect, and the recency effect.

The model predicts that members of an organization who interact more frequently with other members of an organization will demonstrate a stronger degree of identification with the organization than coworkers who interact less frequently. Our model also predicts that organizational members who receive more frequent information about their organization will demonstrate a stronger degree of identification with their organization than coworkers who receive the same type of information less frequently. Finally, our model predicts that organizational members who possess longer durations of primacy and recency effect will demonstrate a stronger degree of identification with their organization than coworkers who possess shorter durations. These predictions are based on the premise that we are who we remember ourselves to be and others are who we remember them to be. Within that general context, our predictions probably represent a modest portion of all possible investigations that could be structured around the role memory plays, over time, in how organizational identification takes place.

Nevertheless, we believe that these predictions have the potential to initiate new and interesting directions for theoretical, empirical, and practical exploration.

Theoretical Implications

Theories of organizational identification need to take into account not just what happens, but when it happens, as well as how much of it happens over time. Ignoring this temporal aspect will seriously hamper the predictive power of any theory or model. For example, stating that an individual's strength of organizational identification is dependent on the passage of time or tenure (Glaser, 1964; Hall & Schneider, 1972; Hinrichs, 1964; Lee, 1971; Mael & Ashforth, 1992; Rousseau, 1998) is incomplete without accounting for the frequency of interactions with organizational members or the amount of information received about the organization.

The inclusion of memory in theoretical explorations of organizational identification will make current models in social sciences more complete by including the social construction of time in and from memory. Furthermore, this link will also allow conversations in clinical and cognitive neuropsychology to inform and guide future theoretical advancements in our field. Work that entails working memory (Baddeley, 2001, 2003; Kihlstrom, 1987; Klein et al., 2002) is especially promising and holds great potential. Even if one were to leave the cognitive domain and investigate other proposed components of organizational identification—such as affective, behavioral, or evaluative elements (vanDijk, 2001)—in our minds no theoretical exploration could be comprehensive and coherent without being grounded in a temporal framework.

Empirical Implications

The most obvious research implication of our model relates to research design. We believe that research on organizational identification needs to account for the effect of variables as they transpire over time through longitudinal data collection and analysis. Empirically investigating identification as if it were a one-time event does not reveal the rich set of dynamics involved in a process that takes place in human memory. Longitudinal studies are probably the only way to measure and truly appreciate the multiple dimensions of organizational identification that escape the grasp of cross-sectional studies (Kuhn & Nelson, 2002; Smitds et al., 2001; Wiesenfeld et al., 1999).

Additionally, in investigating factors that influence the perceptions of self and organization over time, one research thread relates to how perceptions of self and organization get coded in and decoded from a member's memory. Individual factors—such as biases (Kahneman, Slovic, & Tversky, 1982), perspectives (Mezirow, 1978), and world views (Burrell & Morgan, 1979)—and similar environmental factors that ultimately determine the accessibility, salience, and credibility of information available to members are all worth investigating.

Practical Implications

Managers might benefit from revisiting their assumptions, strategies, policies, practices, and evaluation regarding (a) recruiting efforts, (b) employee orientation programs, (c) individual and group communications, (d) periodic employee reviews, and (e) knowledge management systems. Each of these areas involves interaction with other organizational members or transmittal of information about the organization. Taking into account the limitations of memory—including the effects of primacy and recency—while such organizational activities are planned, coordinated, and executed could reveal untapped opportunities to promote organizational identification. For example, knowing that the first and last impressions of any coherent interaction will be remembered better by employees, organizational tasks could be structured to convey core values about desired organizational identity in the beginning and at the end.

Another important implication is to ensure that employees are not isolated for extended periods of time. This is especially important when newcomers are welcomed to the organization. Since new members' need to identify might be strongest in this period, they should be given the opportunity to interact with as many existing members as possible to gather and store information about the organization. In a similar vein, new members should be immediately integrated into formal and informal communication networks through which they can accumulate information about the organization, which they can use in and from memory to identify with the organization.

In addition, acknowledging the limitations of human memory, organizations can implement knowledge management structures and practices as auxiliary mechanisms that promote organizational memory. By viewing knowledge management systems as something more than data repositories that hold only technical know-how, operational manuals, procedural and functional guidelines, and company policies, managers can utilize these systems to store, disseminate, and diffuse the core values that constitute the identity of the organization. This approach is especially necessary and useful in virtual organizations, where electronic communications constitute the primary source of exchange between the organization and its members. One way or another, managers need to remember that keeping the central, salient, enduring, and distinctive attributes of the organization (Dukerich et al., 2002; Dutton & Dukerich, 1991; Dutton et al., 1994; Whetten, 2006; Whetten & Godfrey, 1998) fresh in the minds of individuals can make a significant difference in how (and how much) members identify with the organization.

Future Directions and Limitations

We invite researchers in the managerial and organizational cognition field to initiate new investigations that are grounded in memory. We believe such threads will transform our perspective of organizational identification from a static snapshot suspended in the present moment to a dynamic process that transpires over time. Taking this temporal leap is necessary if we are to truly understand how, where, and why organizational identification takes place.

There is, of course, a significant limitation associated with developing and testing models of organizational identification that involve functions of memory. Isolating the role of memory—independent of other factors that impact identification—and examining its effect over time is certainly a significant challenge. The need to control all other individual antecedents of organizational identification requires rigorous research design.

While the challenge is significant, the potential to better understand how organizational identification takes place over time is too lucrative to ignore. Given the modest amount of literature currently available on the topic, a good place to start the investigation might be to use qualitative methods (such as phenomenology) or simulation methods (such as agent-based modeling) to form a general understanding of the fundamental principles of the process. Doing so will gradually present a more robust framework to test and further extend research in more specific directions.

Conclusion

Assuming that we are who we remember ourselves to be and others are who we remember them to be, memory plays a central role in the way we identify with organizations. Memory essentially defines the cognitive boundaries in which we compare ourselves with others and draw conclusions about what we share in common with them. Most importantly, however, our ability to remember becomes a prerequisite for the process of organizational identification. In other words, if we cannot remember, then we cannot identify with an organization.

In conclusion, we propose that memory is both the medium and the vehicle through which we construct answers to the questions “Who am I?” and “Who are we?” Furthermore, time is the framework in which we compare the “I” and the “we” constructed from memory. We leave the reader with a question: Could there be a notion of time, ‘I’, or ‘we’ in the absence of memory?

References

- Albert, S., Ashforth, B. E., & Dutton, J. E. (2000). Organizational identity and identification: Charting new waters and building new bridges. *Academy of Management Review*, 25(1), 13-17.
- Albert, S., & Whetten, D. (1985). Organizational identity. In L. L. Cummings & B. M. Staw (Eds.), *Research in organizational behavior*. Greenwich, CT: JAI Press.
- Anderson, J. R. (1983). *The architecture of cognition*. Mahwah, NJ: Erlbaum.
- Ashforth, B. E., & Mael, F. A. (1989). Social identity theory and the organization. *Academy of Management Review*, 14, 20-39.
- Ashforth, B. E., & Mael, F. (1996). Organizational identity and strategy as a context for the individual. *Advances in Strategic Management*, 13, 17-62.
- Ashforth, B. E., & Sluss, D. M. (2006). Relational identities in organizations: Healthy versus unhealthy. In L. Kyriakidou & M. Ozbilgin (Eds.), *Relational perspectives in organization studies* (pp. 8-27). Cheltenham: Edward Elgar.

- Atkinson, R. C., & Shiffrin, R. M. (1968). Human memory: A proposed system and its control processes. In K. W. Spence & J. T. Spence (Eds.), *The psychology of learning and motivation* (Vol. 2, pp. 89-195). New York: Academic Press.
- Baddeley, A. (2001). Memory. In R. A. Wilson & F. C. Keil (Eds.), *The MIT encyclopedia of the cognitive sciences* (pp. 821-830). Cambridge, MA: MIT Press.
- Baddeley, A. (2003). Working memory: Looking back and looking forward. *Nature Reviews - Neuroscience*, 4, 829-839.
- Bartel, C. (2001). Social comparisons in boundary-spanning work: Effects of community outreach on members' organizational identity and identification. *Administrative Science Quarterly*, 46, 379-413.
- Bergami, M., & Bagozzi, R. P. (2000). Self-categorization, affective commitment and group self-esteem as distinct aspects of social identity in the organization. *British Journal of Social Psychology*, 39(4), 555-577.
- Bhattacharya, D., Rao, H., & Glynn, M. A. (1995). Understanding the bond of identification: An investigation of its correlates among art museum members. *Journal of Marketing*, 59(4), 46-47.
- Bjork, R. A., & Whitten, W. B. (1974). Recency-sensitive retrieval processes in long-term free recall. *Cognitive Psychology*, 6, 173-189.
- Bruner, J. S. (1994). The "remembered" self. In U. Neisser & R. Fivush (Eds.), *The remembering self: Constructions and accuracy in the self-narrative* (pp. 41-54). New York: Cambridge University Press.
- Bullis, C., & Bach, B. (1991). An explication and test of communication network and content and multiplexity as predictors of organizational identification. *Western Journal of Speech Communication*, 55, 180-197.
- Burrell, G., & Morgan, G. (1979). *Sociological paradigms and organisational analysis*. London: Heinemann.
- Carlesimo, G. A., Marfia, G. A., Loasses, A., & Caltagirone, C. (1996). Recency effect in anterograde amnesia: Evidence for distinct memory stores underlying enhanced retrieval of terminal items in immediate and delayed recall paradigms. *Neuropsychologia*, 34, 177-184.
- Cheney, G. (1983). On the various and changing meanings of organizational membership: A field study of organizational identification. *Communication Monographs*, 50, 342-362.
- Craik, F. I., & Birtwistle, J. (1971). Proactive inhibition in free recall. *Journal of Experimental Psychology*, 91, 120-123.
- Craik, F. I., & Levy, B. A. (1970). Semantic and acoustic information in primary memory. *Journal of Experimental Psychology*, 86, 77-82.
- Davelaar, E. J., & Usher, M. (2003). *A neurocomputational account of short-term and long-term recency effects*. Paper presented at the 25th Annual Meeting of the Cognitive Science Society, Boston, MA.
- Dukerich, J. M., Golden, B. R., & Shortell, S. M. (2002). Beauty is in the eye of the beholder: The impact of organizational identification, identity, and image on the cooperative behavior of physicians. *Administrative Science Quarterly*, 47(3), 507-533.
- Dukerich, J. M., Kramer, R. M., & Parks, J. M. (1998). Identity in organizations: Building theory through conversations. In D. Whetten & P. Godfrey (Eds.), *Identity in*

- organizations: Building theory through conversations* (pp. 245-256). Thousand Oaks, CA: Sage Publications.
- Dutton, J. E., & Dukerich, J. M. (1991). Keeping an eye on the mirror: Image and identity in organizational adaptation. *Academy of Management Journal*, *34*, 517-554.
- Dutton, J. E., Dukerich, J. M., & Harquail, C. V. (1994). Organizational images and member identification. *Administrative Science Quarterly*, *39*, 239-263.
- Duzel, E., Yonelinas, A. P., Mangun, G. R., Heinze, H., & Tulving, E. (1997). Event-related brain correlates of two states of conscious awareness in memory. *Proceedings of the National Academy of Sciences of the United States of America*, *94*(11), 5973-5978.
- Edwards, M. R. (2005). Organizational identification: A conceptual and operational review. *International Journal of Management Reviews*, *7*(4), 207-230.
- Elsbach, K. D., & Bhattacharya, D. (2001). Defining who you are by what you're not: Organizational disidentification and the National Rifle Association. *Organization Science*, *12*(4), 393-413.
- Elsbach, K. D., & Kramer, R. M. (1996). Members' responses to organizational identity threats: Encountering and countering the Business Week rankings. *Administrative Science Quarterly*, *41*(3), 442-476.
- Erikson, E. (1956). The problem of ego identity. *Journal of the American Psychoanalytic Association*, *4*, 56-121.
- Erikson, E. (1968). *Identity: Youth and crisis*. New York: Norton.
- Foreman, P., & Whetten, D. A. (2002). Members' identification with multiple-identity organizations. *Organization Science*, *13*(6), 618-635.
- Fuller, J. B., Marler, L., Hester, K., Frey, L., & Relyea, C. (2006). Construed external image and organizational identification: A test of the moderating influence of need for self-esteem. *Journal of Social Psychology*, *146*(6), 701-716.
- Gibbs, R. W. (2006). *Embodiment and cognitive science*. Cambridge: Cambridge University Press:
- Glanzer, M., & Cunitz, A. R. (1966). Two storage mechanisms in free recall. *Journal of Verbal Learning and Verbal Behavior*, *5*, 351-360.
- Glaser, B. (1964). *Organizational scientists*. New York: Bobbs-Merrill.
- Gossett, L. M. (2000). *Temporary identity: Managing multiple targets of identification within the temporary help industry*. Paper presented at the Annual Meeting of the National Communication Association, Seattle, WA.
- Greene, R. L. (1986). Sources of recency effects in free recall. *Psychological Bulletin*, *99*(2), 221-228.
- Greenwald, A. G. (1981). Self and memory. In G. H. Bower (Ed.), *The psychology of learning and motivation* (Vol. 15, pp. 201-236). New York: Academic Press.
- Grice, H. P. (1941). Personal identity. *Mind*, *50*, 330-350.
- Grice, T., Paulsen, N., & Jones, L. (2002, April). *Multiple targets of organizational identification: The role of identification congruency*. Paper presented at the Society of Australasian Social Psychologists Conference, Adelaide, Australia.
- Hall, D. T., & Schneider, B. (1972). Correlates of organizational identification as a function of career pattern and organizational type. *Administrative Science Quarterly*, *17*, 340-350.

- Haslam, S. A. (2002). *Psychology in organizations: The social identity approach*. London: Sage Publications.
- Hinrichs, J. R. (1964). The attitudes of research chemists. *Journal of Applied Psychology, 48*, 287-293.
- Hogg, M. A., & Terry, D. J. (2000). Social identity and self-categorization processes in organizational contexts. *Academy of Management Review, 25*(1), 121-140.
- Hogg, M. A., & Terry, D. J. (2001). Social identity theory and organizational processes. In M. A. Hogg & D. J. Terry (Eds.), *Social identity processes in organizational contexts* (pp. 1-12). Philadelphia, PA: Psychology Press.
- Howard, M. W., & Kahana, M. (1999). Contextual variability and serial position effects in free recall. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 25*(4), 923-941.
- James, W. (1890). *Principles of psychology*. Cambridge, MA: Harvard University Press.
- Jaques, E. (1982). *The form of time*. New York: Crane Russak & Co.
- Kahana, M., Howard, M. W., Zaromb, F., & Wingfield, A. (2002). Age dissociates recency and lag-recency effects in free recall. *Journal of Experimental Psychology: Learning, Memory, and Cognition, 28*(3), 530-540.
- Kahneman, D., Slovic, P., & Tversky, A. (1982). *Judgment under uncertainty: Heuristics and biases*. New York: Cambridge University Press.
- Kandel, E. (2006). *In search of memory: The emergence of a new science of mind*. New York: W.W. Norton & Co.
- Kihlstrom, J. F. (1987). The cognitive unconscious. *Science, 237*(4821), 1445-1452.
- Kihlstrom, J. F., S., A. J., Chew, B. R., Klein, S. B., & Niedenthal, P. M. (1988). Information processing and the study of the self. *Advances in Experimental Psychology, 21*, 145-178.
- Kihlstrom, J. F., Beer, J. S., & Klein, S. B. (2002). Self and identity as memory. In G. MacDonald, M. R. Leary & J. Tangney (Eds.), *Handbook of self and identity* (pp. 68-90). New York: Guilford Press.
- Klein, S. B., Loftus, J., & Kihlstrom, J. F. (2002). Memory and temporal experience: The effects of episodic memory loss on an amnesic patient's ability to remember the past and imagine the future. *Social Cognition, 20*(5), 353-379.
- Kreiner, G. E., & Ashforth, B. E. (2004). Evidence toward an expanded model of organizational identification. *Journal of Organizational Behavior, 25*(1), 1-27.
- Kuhn, T., & Nelson, R. (2002). Reengineering identity: A case study of multiplicity and duality in organizational identification. *Management Communication Quarterly, 16*(1), 5-38.
- Lee, S. M. (1971). An empirical analysis of organizational identification. *Academy of Management Journal, 14*(2), 213-226.
- Levine, B., Black, S. E., Cabeza, R., Sinden, M., McIntosh, A. R., Toth, J. P., Tulving, E., & Stuss, D. T. (1998). Episodic memory and the self in a case of isolated retrograde amnesia. *Brain, 121*, 1951-1973.
- Lipponen, J., Helkama, K., Olkkonen, M., & Juslin, M. (2005). Predicting the different profiles of organizational identification: A case of shipyard subcontractors. *Journal of Occupational and Organizational Psychology, 78*, 97-112.
- Locke, J. (1979). *An essay concerning human understanding* (1690, Book II, Chapter 27). Oxford: Oxford University Press.

- Mael, F., & Ashforth, B. E. (1992). Alumni and their alma matter: A partial test of the reformulated model of organizational identification. *Journal of Organizational Behavior, 13*, 103-123.
- Mael, F., & Tetrick, L. E. (1992). Identifying organizational identification. *Educational and Psychological Measurement, 52*, 813-824.
- March, J. G., & Simon, H. A. (1958). *Organizations*. New York: Wiley.
- Mezirow, J. (1978). Perspective transformation. *Adult Education, 28*, 100-110.
- Mowday, R., Porter, L., & Steers, R. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover*. New York: Academic Press.
- Myers, S., & Kassing, J. W. (1998). The relationship between perceived supervisory communication behaviors and subordinate organizational identification. *Communication Research Reports, 15*(1), 71-81.
- Nelson, K. (1993). The psychological and social origins of autobiographical memory. *Psychological Science, 4*, 7-14.
- Oksenberg, A., & Wong, D. (1993). Aspects of identity and agency. In O. J. Flanagan & A. Oksenberg (Eds.), *Identity, character, and morality* (pp. 19-36). Cambridge, MA: MIT Press.
- Pratt, M. G. (1998). To be or not to be: Central questions in organizational identification. In D. Whetten & P. Godfrey (Eds.), *Identity in organizations: Developing theory through conversations* (pp. 171-208). Thousand Oaks, CA: Sage Publications.
- Quinton, A. (1962). The soul. *Journal of Philosophy, 59*, 393-409.
- Riketta, M. (2005). Organizational identification: A meta-analysis. *Journal of Vocational Behavior, 66*, 358-384.
- Rotondi, T. (1975). Organizational identification: Issues and implications. *Organizational Behavior and Human Performance, 13*, 95-109.
- Rousseau, D. M. (1998). Why workers still identify with organizations. *Journal of Organizational Behavior, 19*, 217-233.
- Scott, C. R. (2007). Communication and social identity theory: Existing and potential connections in organizational identification research. *Communication Studies, 58*(2), 123-138.
- Scott, C. R., & Timmerman, C. E. (1999). Communication technology use and multiple workplace identifications among organizational teleworkers with varied degrees of virtuality. *IEEE Transactions of Professional Communication, 42*(4), 240-260.
- Singer, J. A., & Salovey, P. (1993). *The remembered self: Emotion and memory in personality*. New York: Free Press.
- Sluss, D. M., & Ashforth, B. E. (2007). Relational identity and identification: Defining ourselves through work relationships. *Academy of Management Review, 32*(1), 9-32.
- Smitds, A., Pruyn, T. H., & vanRiel, C. B. (2001). The impact of employee communication and perceived external prestige on organizational identification. *Academy of Management Journal, 44*(5), 1051-1062.
- Smith, E. E. (2001). Working memory. In R. A. Wilson & F. C. Keil (Eds.), *The MIT encyclopedia of the cognitive sciences* (pp. 888-890). Cambridge, MA: MIT Press.

- Tajfel, H. (1981). *Human groups and social categories: Studies in social psychology*. New York: Cambridge University Press.
- Tajfel, H., & Turner, J. C. (1979). *The social psychology of intergroup relations*. Monterey, CA: Brooks/Cole Publishing Company.
- Tajfel, H., & Turner, J. C. (1985). The social identity theory of intergroup behavior. In S. Worchel & W. G. Austin (Eds.), *The psychology of intergroup relations* (Vol. 2, pp. 7-24). Chicago: Nelson-Hall.
- Tessler, M., & Nelson, K. (1994). Making memories: The influence of joint encoding on later recall. *Consciousness and Cognition*, 3, 307-326.
- Tompkins, P. K., & Cheney, G. (1985). Communication and unobtrusive control in contemporary organizations. In R. D. McPhee & P. K. Tompkins (Eds.), *Organizational communication: Traditional themes and new directions* (pp. 179-210). Beverly Hills, CA: Sage Publications.
- Tulving, E. (1983). *Elements of episodic memory*. Oxford, UK: Oxford University Press.
- Tulving, E. (1984). Precis of elements of episodic memory. *Behavioral and Brain Sciences*, 7, 223-268.
- Tulving, E. (2001). Episodic vs. semantic memory. In R. A. Wilson & F. C. Keil (Eds.), *The MIT encyclopedia of the cognitive sciences* (pp. 278-280). Cambridge, MA: MIT Press.
- Turner, J. C. (1982). Towards a cognitive redefinition of the social group. In H. Tajfel (Ed.), *Social identity and intergroup relations*. Cambridge, MA: Cambridge University Press.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., & Wetherell, M. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Blackwell.
- vanDick, R. (2001). Identification in organisational contexts: Linking theory and research from social and organisation psychology. *International Journal of Management Reviews*, 3(4), 265-283.
- vanDick, R., Hirst, G., Grojean, M. W., & Wieseke, J. (2007). Relationships between leader and follower: Organizational identification and implications for follower attitudes and behaviour. *Journal of Occupational and Organizational Psychology*, 80(1), 133.
- vanDick, R., Wagner, U., Stellmacher, J., & Christ, O. (2004). The utility of a broader conceptualization of organizational identification: Which aspects really matter? *Journal of Occupational and Organizational Psychology*, 77(Psychology Module), 171-191.
- vanDick, R., Wagner, U., Stellmacher, J., Christ, O., & Tissington, P. (2005). To be(long) or not be(long): Social identification in organizational contexts. *Genetic, Social, and General Psychology Monographs*, 131(3), 189-218.
- Whetten, D. A. (2006). Albert and Whetten revisited: Strengthening the concept of organizational identity. *Journal of Management Inquiry*, 15(3), 219-234.
- Whetten, D. A., & Godfrey, P. C. (1998). *Identity in organizations: Building theory through conversations*. Thousand Oaks, CA: Sage Publications.
- Wiesenfeld, B. M., Raghuram, S., & Garud, R. (1999). Communication patterns as determinants of organizational identification in a virtual organization. *Organization Science*, 10(6), 777-790.

Winograd, T. (1975). Frame representations and the declarative/procedural controversy. In D. Bobrow & A. Collins (Eds.), *Representations and understanding: Essays in cognitive science* (pp. 185-212). New York: Academic Press.