A Functional Framework for the Influence of Implicit and Explicit Motives on Autobiographical Memory

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A functional framework explains the influence of implicit and explicit motives on autobiographical memory. Personality motives at different levels of awareness are differentially activated by the social context and, in turn, engage memory processes. Research shows that these motives influence both what and how autobiographical events are remembered. Specifically, implicit motives modulate encoding and recall of emotional experiences, vivid memories, and event-specific knowledge through unconscious organizing strategies that facilitate affective end states. Explicit motives modulate encoding and recall of events linked to self-concept stability change, as well as routine experiences and general event scripts that represent typical self-attributed behaviors that facilitate the attainment of current goals. Research from narrative essays, self-report data, and controlled experiments demonstrates that implicit and explicit motives have a differential influence on each step of the memory process. An integrative framework explains this research from a functional perspective.

Keywords: implicit-explicit motivation; autobiographical memory; cognitive strategies; memory accessibility

Research on autobiographical memory has been burgeoning in several areas of psychology. Some of this research began with narrative models of personality and life experiences (e.g., McAdams, 1985, 2001; Pennebaker, 1997; Singer & Salovey, 1993). At the same time, developmental researchers began examining the role of developmentally sensitive cognitive skills (e.g., language development) and child–parent interactions in shaping autobiographical memory (e.g., Nelson, 1993; Nelson & Fivush, 2004; Wang, 2004). Social psychologists have recently begun to emphasize the role of social interaction in shaping the content and functions of autobiographical memory (e.g., Bluck, Alea, Habermas, & Rubin, 2005; McLean, Pasupathi, & Pals, 2007; Pasupathi, 2001; Skowronska & Walker, 2004). Cognitive psychologists are debating the location of autobiographical memories within a broader framework of cognitive processes (e.g., Rubin, 2006), whereas neuroscientists are seeking to identify where these memories are located in the brain (e.g., Conway, Pleydell-Pearce, & Whitecross, 2001).

Memory is a net; one finds it full of fish when [one] takes it from the brook; but a dozen miles of water have run through it without sticking.

—Oliver Wendell Holmes (1858/2002)

It is impossible to remember all of our experiences. In fact, cognitive capacity requires that we remember only a small sample of life events. Why do we remember some experiences and not others?

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Theorists have generally assumed that personality is shaped by the environment, at least to some degree, and that personality, in turn, plays a role in the processing of experiences. By extension, then, personality may likely influence autobiographical memory. This article puts forth a functional framework that describes the selective influence of personality on memory. In this scheme, two levels of motivation—one conscious, and one less conscious—are differentially activated by the social context. This interaction of motivation and situation creates a unique state of readiness, or a special condition, for processing autobiographical events. The framework articulates how and why implicit and explicit motives influence each step of the memory process. Within a person x situation framework, memory processes function to allow people to meet specific conscious and less conscious goals. These goals are specific intentions that have been shaped by stable and enduring motivational dispositions formed during early developmental experiences. At any given moment, social cues at different levels of awareness activate these motives. The motives then engage memory processes by modulating selective attention, encoding, rehearsal, organization, the content of retrieval, and the "how" of retrieval. In sum, this model of autobiographical memory explains what (content), how (structure), and why (function) people remember personal events in which either explicit or implicit motivations are activated by the social environment. The central premise is that remembering certain personal autobiographical events serves a specific function depending on which motive is engaged by the situation.

A brief look at the history of psychology reveals that the link between personality and memory has been enduring, yet the research has been sporadic (Singer & Salovey, 1993). Early memory researchers (e.g., Ebbinghaus, 1885/1964) viewed individual differences in memory as nuisance factors. It was Bartlett (1932) who first argued that memory is heavily influenced by one's current attitude and frame of reference. The effect of personality factors was independently proposed by psychoanalysts (e.g., Adler, 1931; Freud, 1915/1957) who contended that memories should be viewed as projections of wishes and desires rather than veridical accounts of past experiences. Years later, researchers of the New Look in Perception (Bruner & Klein, 1960; Bruner & Postman, 1947, 1949; Klein, 1970; Klein & Schlesinger, 1949) advanced the idea that perception, learning, and memory could not be studied without considering both the context and the current concerns of the individual. More recently, researchers (e.g., Conway, Singer, & Tagini, 2004; Greenwald, 1980; Kihlstrom, 1981) have maintained that salient features of personality may influence both encoding and retrieval processes.

Most researchers agree that there is a strong and important relation between the aspects of the self, including goals and motives, and autobiographical memory. For instance, W. F. Brewer (1986) argued that the inherent self-referring nature of autobiographical memories was the feature that made them unique from other types of long-term knowledge. And indeed, memories of personal experiences have been found to be closely related to various aspects of personality, including identity formation (e.g., McAdams, 1985, 2001; Wang, 2004), psychological growth and development (e.g., Habermas & Bluck, 2000; Thorne, 2000), well-being (e.g., Beike & Landoll, 2000; King, 2001; King & Miner, 2000; Pennebaker, 1997), as well as motives (e.g., Woike, Gershkovitch, Piorkowski, & Polo, 1999) and goals (e.g., Bluck et al., 2005; Singer & Salovey, 1993). Researchers from various perspectives have found correlations between important aspects of personality and autobiographical content variables.

In this literature, autobiographical memory is measured mainly through narratives in which people write their personal accounts, or their oral telling of their experiences is recorded and transcribed. Researchers use these narratives to systematically extract themes (e.g., affective tone) and qualities (e.g., vividness or complexity) pertinent to their specific research questions. For a detailed discussion of the issues involved in developing content-analytic procedures, see Woike (2007). In short, the basic technique has great utility. By asking people to write or to describe orally their personal memories, it is possible to discover unique patterns of remembering that would be extremely difficult to capture in the form of fixed-response questionnaires. However, these narrative accounts tell us very little about the specific processes of autobiographical memory.

There has, in fact, been little systematic work that outlines the exact nature of these personological variables and their effect on memory processing. Recent models in cognitive psychology (e.g., Conway & Pleydell-Pearce, 2000; Conway et al., 2004) have been introduced that attempt to explain the relation of the self-concept to autobiographical memory at the processing level. A specific autobiographical memory is regarded as a stable pattern of activation over the indices of knowledge structures. Memories are considered transitory mental constructions within a self-memory system. The self-memory system contains an autobiographical knowledge base as well as current goals of the working self-concept (e.g., Markus & Wurf, 1986). The working self-concept may be viewed as a representation in working memory made up of an organized set of self-features whose feature associations are determined by the currently active forms of reference, such as goals (e.g., DeSteno & Salovey, 1997). Within the self-memory system, these goals function as control
processes to modulate accessibility to knowledge structures and to construct specific memories.

These models are helpful in explaining how self-concept variables studied by personality, social, and development psychologists influence autobiographical memory at the processing level studied by cognitive psychologists. Conway and Pleydell-Pearce (2000) do not discuss levels of processing specifically; as such, their approach may conceptually reduce personological factors to knowledge structures that represent the self and may not adequately take into account the possibility that cognitive processing occurs at different levels of awareness. Finally, these current processing models may not thoroughly explain the dynamic influence of social factors on memory processes (Pasupathi, 2001; Skowronska & Walker, 2004).

Each of these three issues is considered in the functional framework presented here. First, a rich history in personality psychology has demonstrated that personality constructs on different levels of awareness have a profound and systematic influence on individuals' thoughts, feelings, and behavior (McAdams, 1995; McAdams & Pals, 2006; Westen, 1991, 1995). This suggests that important aspects of personality inherently linked to autobiographical memory may not be reducible to knowledge structures of the self.

Of course, psychologists have considered autobiographical memories from the levels of consciousness perspective for a long time (e.g., Adler, 1931; Freud, 1915/1957). For instance, many are still intrigued by the question, originally posed by Adler (1931), of whether we have inaccessible memories from childhood or other times in our lives that control, or at least contribute to, our present experience. Research on implicit processes (Bargh & Chartrand, 1999; Wegner, 1994) suggests that not all our thoughts, feelings, and behavior are under our conscious control. Cognitive psychologists have studied implicit memory processes extensively (e.g., Roediger, 1990; Schacter, 1987) but have not applied the concept systematically to understand autobiographical memory. Current processing models of autobiographical memory (Conway & Pleydell-Pearce, 2000) do not discuss levels of processing or implicit processes specifically. These models may best explain the influence of conscious well-articulated motives and goals linked to the self-concept on autobiographical memory.

As will be discussed in detail in the following sections, explicit motives are linked to the self-concept and current goals and plans and, therefore, facilitate memory processes for personal events that may help the person achieve his or her goals and plans and/or maintain a sense of self-consistency. Less conscious or implicit motives are linked to intrinsic rewards and activate memory processes under conditions that bring about these desired affective end states.

A central premise of the functional framework is that differences in the encoding, organization, and retrieval of autobiographical memories can be understood through an identification of the link between the motives that people bring to situations and the aspects of those events that relate to their motives. Following the classic person × situation framework originally proposed by Lewin (1935) and its more recent versions (e.g., Aronoff & Wilson, 1985), researchers can identify the relation between people's motives and the aspects of situations and events that relate to their motives to understand why some experiences are remembered and why some are forgotten, or as Holmes (1858/2005) would word it, why some experiences are "fish" and some experiences are "water."

In a nutshell, then, motives interact with situations to modulate the encoding and the later retrieval of the autobiographical knowledge that forms specific autobiographical memories. This general premise rests on two fundamental predictions from cognitive psychology. First, motives should determine what is encoded and remembered such that an individual should have superior ability to encode motive-related knowledge and have better accessibility to this knowledge in a context relevant to the motive. Second, motives should influence how autobiographical memories are encoded and retrieved in that motive-related memories should be encoded and retrieved in ways that facilitate the attainment of motive-related end states. The functional framework posits that these whats (content) and hows (structure) are different depending on the level of conscious awareness of the motive and the functions served by these motives.

Cognitive psychologists have identified some basic steps of memory processes (e.g., Baddeley, 1998; Neath & Suprenant, 2003). Motivation researchers (e.g., McClelland, Koestner, & Weinberger, 1989; Schultheiss, in press) have validated implicit and explicit motives as stable personality differences at different levels of conscious awareness. Social-developmental psychologists (Pasupathi, 2001; Skowronska & Walker, 2004) have demonstrated the importance of situations in creating changes in the cognitive processing of autobiographical events within an integrative framework. Therefore, a functional framework of autobiographical memory can now be developed that explains how personality motives at different levels of consciousness interact with social situations to influence each step of the autobiographical memory process.

### TWO LEVELS OF MOTIVATION: A PERSONALITY PERSPECTIVE

Currently, the idea that people have motives and intentions outside of their awareness is readily accepted by researchers (e.g., Bargh & Chartrand, 1999; Gladwell,
linked to the methodological imprecision of psychoanalytic interpretations, ink blots, and the like (Lilienfeld, Wood, & Garb, 2000; Woike & McAdams, 2001). Moreover, assessing implicit motives is much more labor intensive than measuring self-reported motives (Woike, 2007). So, researchers may opt for the easiest methods available when they want to assess personality motivations in their work. The following detailed description of the development and validation of the assessment systems for implicit motives may help clarify these misconceptions.

Implicit motives are less conscious and less readily articulated; therefore, they must be estimated indirectly (Schultheiss & Pang, 2007). The most frequently used method of assessing implicit motives is the Picture Story Exercise (PSE; McClelland et al., 1989). The PSE requires research participants to write imaginative stories about six drawings showing people in somewhat ambiguous social situations (e.g., two people sitting on a park bench, a ship captain talking to a passenger; reproductions of these pictures can be found in Smith, 1992, pp. 633-638). The stories are then scored with coding systems that were derived empirically. Specifically, coding schemes were developed in research in which a motivational state was aroused (or felt) in one group of participants through experimental procedures, or naturally occurring situations, whereas a control group was not aroused in this way. All participants then wrote stories to the same pictures; stories from the arousal and neutral groups were compared for thematic content differences. The themes that reliably distinguished the arousal from the control group were retained in the coding system. So, when the coding system is applied to stories collected under neutral conditions, a greater number of codeable themes in a given participant's stories indicated a strong implicit motive.1 Recently, researchers have found that PSE measures of implicit motivation loaded on the same factor as motives assessed through the Implicit Association Test (IAT; Greenwald, McGhee, & Schwartz, 1998), suggesting that implicit motives may be captured through various indirect methods of assessment (Sheldon, King, Houser-Marko, Osbaldiston, & Gunz, 2007).

Three implicit motives measured with the PSE have been researched in detail: achievement, power, and intimacy. The achievement motive is described as a desire to meet a personal standard of excellence (McClelland, Atkinson, Clark, & Lowell, 1958) and relates to the experiences of "doing better." The power motive is a desire to control and influence another person, groups, or the world at large (Winter, 1973) and refers to "having impact." These two motives have been considered to reflect the more global need for agency (e.g., McAdams, 1985; Woike et al., 1999) or a concern for
task- or work-related matters as well as a desire for individuality and, in some cases, for dominance over others (Bakan, 1966). In contrast, the need for intimacy is considered to be a communal motive as it refers to a desire to experience warm, close, and communicative exchanges with others (McAdams, 1984) and relates to experiences of “feeling close.”

By contrast, explicit motives are easily articulated and therefore can be assessed through questionnaires about preferences and concerns that provide a discrete number of possible answers. For instance, a question to assess an explicit need may begin with “I like to be” or “It is important to”; the individual selects the best-fitting answers from fixed alternatives. So, a test of this type approximates an individual's readily expressible self-knowledge and values. One such self-report measure is the Personality Research Form (PRF) developed by Jackson (1974, 1989), which contains 320 true/false items, making up 20 independent scales. Each of the scales purports to measure a basic personality need taken from Murray's original list of needs (Murray, 1938). There are three subscales that parallel the three aforementioned implicit needs: achievement, dominance, and affiliation. Other self-report scales may also be used to measure agency and communion as explicit motives (e.g., Wiggins, 1992).

Here is a brief review of the studies that lend validity to the implicit–explicit motive distinction and to their different behavioral correlates. One of the most striking and pervasive findings to emerge from more than 50 years of research on motivation is the observation that the correlation between implicit and explicit measures is typically very close to zero (Schultheiss & Pang, 2007). For example, questionnaire measures of achievement motivation are typically uncorrelated with the PSE measure of achievement (e.g., Entwistle, 1972; Klinger, 1966; Pang & Schultheiss, 2005; Schultheiss & Brunstein, 1999; Wowie, 1995). A similar lack of convergence has been found for power and intimacy motivation (e.g., King, 1995; Pang & Schultheiss, 2005; Schrotth, 1985). In general, it appears that people do not have conscious access to their motives as assessed with the PSE and that the motivational needs and goals they ascribe to themselves cannot be interpreted as valid indicators of their underlying implicit motive dispositions. Implicit motivation tests measure preferences for particular types of emotional experiences, whereas self-attribute questionnaires measure cognitively elaborated aspects of the self and learned values. Validity studies support this theoretical distinction by demonstrating that implicit and self-attributed motives differ in their association to behavioral incentives and outcomes and seem to be associated with different cognitive processes as well.

Researchers have maintained that implicit motives predict behavioral trends over time, whereas self-attributed motives predict immediate specific responses to specific situations (e.g., McClelland, 1980). So, implicit motives might provide a general orientation toward certain types of goals, but self-attributed desires often reflect social norms that help define more narrowly the areas in which those goals are to be accomplished (McClelland, 1985a; Parsons & Goff, 1980). For example, implicit achievement may be expressed in the sentiment, “It feels good to be succeeding,” whereas explicit achievement may be indicated in the value, “It is important to do one's best in academics.” Thus, implicit motives are primarily activated by incentives experienced in doing something for intrinsic enjoyment, whereas explicit motives are usually activated by extrinsic or social incentives, such as rewards, prompts, expectations, or demands (Koestner et al., 1991). Reviews of the research provide support for McClelland's distinction (Spangler, 1992; Winter, John, Stewart, Klohnen, & Duncan, 1998). For example, in Spangler's (1992) review of 102 articles on achievement motivation, it was found that PSE-based achievement motivation was only a modest predictor of achievement behaviors. But, when the studies were divided into those assessing achievement situations with social incentives (e.g., pressure to do well) and those with intrinsic incentives (i.e., naturally occurring achievement behavior), the hypothesis was supported. That is, explicit achievement predicted achievement behavior in situations with social incentives, and implicit achievement motivation predicted achievement behavior in situations with intrinsic incentives. Relatedly, implicit motives have been demonstrated to have greater validity for predicting long-term trends in behavior than have self-reported needs as recorded in questionnaires. For instance, the implicit need for achievement predicts entrepreneurial activity over time (McClelland, 1965, 1987), and the amount of intimacy motivation in imaginative stories written by men at age 30 predicted marital happiness and overall psychosocial adjustment 17 years later (McAdams & Vaillant, 1982).

Theorists (McClelland et al., 1989) have suggested that the PSE is better than self-report questionnaires in estimating implicit motives because it provides an outlet for the spontaneous expression of motivational and emotional preferences than do self-reports that are filtered through analytic thought and various concepts of self and others. So, cognitive models of motivation that emphasize goals and plans describe the way self-attributed motives function much better than the way implicit motives function. Self-attributed motives are characterized by organized thought and a focus on a specific and often unmet goal. By contrast, those with strong implicit motives are aroused by affective experiences.
intrinsic to an activity and not by explicit references to
unmet goals.

In sum, the studies of convergent and discriminant
validity on the two measures of motivation have demon-
strated consistently that the two motives are not corre-
lated with each other, but each correlates with a
different array of behavior. Although the distinction
between implicit and explicit motives has stimulated a
good deal of research investigating the predictability
of behavior, until recently, comparatively little was known
about the influence of these two classes of motives on
cognitive processes. It stands to reason that if implicit
and self-reported motives are two discrete systems at dif-
ferent levels of awareness, they may also have a differen-
tial influence on cognitive processes, especially memory
processes (Woiwe, 1995). In the next section, it is sug-
gested that the implicit–explicit motive contrast shares
common characteristics with several dual process
models. This is followed by a detailed description of the
dual functional framework of autobiographical memory.

DUAL PROCESS MODELS

Over the past two decades, evidence has been accumu-
lating for multiple system approaches to cognitive process-
ing in many areas of psychology including learning and
memory (e.g., Kihlstrom, 1990; LeDoux, 1996, 2002;
Schacter, 1987, 1992; Tulving, 1985), attention and per-
ception (e.g., Greenwald, Klinger, & Schuh, 1995;
Schneider & Shiffrin, 1997; Shiffrin & Schneider, 1997),
social cognition (e.g., Bargh, 1989; Tversky & Kahneman,
1983; Wegner, 1994), and personality (Epstein, 1994;
Metcalfe & Mischel, 1999). These models share the
assumption that cognitive processing occurs at both con-
scious and less or nonconscious levels of awareness.

For instance, Epstein (1994) proposed the cognitive–
experiential self-theory, which is a two-system model of
cognitive processing that distinguishes between an expe-
riential system and a rational system. The experiential
system that exists largely outside of awareness preserves
vivid, concrete perceptions of experiences by encoding
percepts into images and narratives. In a given situation,
thought and action are guided by present feelings and
prior affective experiences in similar situations. The
rational system, by contrast, operates consciously
through language and symbols by processing information
analytically and by using logical reasoning to guide
thought and behavior. Similarly, Metcalfe and Jacobs
(1996, 1998) and Metcalfe and Mischel (1999) have
proposed the hot–cool system analysis, which distin-
guishes between a cool cognitive system and a hot emo-
tional system. The metaphor of hot spots and cool nodes
is used to describe how the two systems work in concert
to produce experiences that are both emotional and
cognitive. Like Epstein’s experiential system, the hot sys-
tem is the basis of both positive and negative emotional-
ity; it is simple and reflexive. It develops early in life and
is initially controlled by innate releasing stimuli that then
form associative learning patterns. In contrast, the cool
system, like Epstein’s rational system, develops later in
life; it is cognitive, emotionally neutral, flexible, inte-
grated, slow, and strategic. Cool nodes are elaborately
interconnected to one another within the cool system
and connect at specific points to hot nodes as well.
Responses initiated from the cool system are not imme-
diate, nor are they direct expressions of approach–
avoidance patterns but rather verbal descriptions, state-
ments, and assertions.

The emotional, nonconscious, reflexive, and enduring
nature of implicit motives, as well as their expres-
sion in fantasy and their link to affective experience, is
partially what is being described as important features
of both the experiential and the hot emotional systems.
The explicit motivational system, on the other hand,
includes consciously accessible intentions and goals that
are linked to cognitive strategies and plans, which are
hallmarks of both the rational and the cool cognitive
systems, described by Epstein, and Metcalfe and
Mischel, respectively.

Thus, theorists from different perspectives seem to
agree that there are two systems at work here: one more
spontaneous and affective, but less conscious and control-
lable, and the other more consciously goal directed, but
less spontaneous and emotional. The implicit and explicit
motivational systems have many of the same parallel dis-
tinctions as dual cognitive processing models, namely, a
differential emphasis on conscious versus nonconscious
processing and on affect versus cognition. Dual process
models have yet to be used to understand autobiographi-
cal memory processes. The dual functional framework of
autobiographical memory presented here makes differen-
tial predictions of how and why implicit and explicit moti-
vations influence each step of the memory process.

Implicit motives reflect the desire for particular quali-
ties of affective experiences and are linked to intrinsic
incentives and, therefore, may be linked to cognitive pro-
cedures that automatically influence behavior without
conscious effort. The function of these implicit procedures
may be to allow the individual to engage in behaviors that
provide intrinsic incentives that have been acquired on the
basis of repeated affective experience. Explicit motives,
by contrast, reflect the self-concept and well-articulated
groups and values. They are linked to conscious goal setting
including the formulation of plans and rules for behavior
that corresponds with values and the self-concept and,
therefore, should involve highly elaborated networks of
knowledge about the self and one’s values.
Table 1 summarizes the basic characteristics of the two motivational systems and their relation to memory processes. Implicit motives are enduring preferences to experience particular affective end states. People tend to be less aware of their implicit motives (as shown in the lack of correlation with self-reports); therefore, these motives are best estimated through indirect techniques such as the PSE. The validity data show that implicit motives are aroused in situations that provide intrinsic incentives for particular affective end states. People want to experience the emotion of the implicit motive (e.g., the feeling of succeeding) rather than the external reward (e.g., an A on their transcript). If this is happening outside of awareness, as the research suggests, then implicit motives may be linked to cognitive procedures that automatically create information-processing events that lead to these desired affective end states (e.g., having succeeded; being loved). After many experiences in which the affective end state is felt in motive-arousing situations, the implicit cognitive procedures become linked to intrinsic incentives. In this way, implicit motives should modulate encoding and recall of affective experiences and specific and vivid autobiographical events linked to them by the use of organizing strategies that facilitate the attainment of these affective end states.

Looking further at Table 1, explicit motives manifest as a person's self-conception and learned, well-articulated goals and values. These motives can be easily estimated through standard self-report questionnaires. Research shows that the self-attributed motives are linked to the conscious formation of goals, plans, and rules for behavior that correspond to it (e.g., Emmons & McAdams, 1991). For example, a person who believes that having good social skills is very important may have many social goals and remember experiences in which his or her conception of being socially skilled was affirmed by others. A person who describes himself or herself as a high achiever sets high achievement goals and remembers the successes that validate his or her self-concept. So, over time, all this conscious effort devoted to thinking about oneself and values produces elaborated networks of knowledge about the self and personal values. Holding this knowledge accessible may help to maintain a sense of consistency. Explicit motives guide encoding and retrieval processes selectively so that autobiographical events that are key to maintaining self-concept stability or were significant in changing one's self-concept are given priority. Explicit motives should also guide the organization of routine experiences and general event scripts that represent typical self-attributed behaviors in memory. When activated, explicit motives should modulate memory for events related to the self-concept and values; this helps people achieve current goals and plans (e.g., Bluck, 2003). In this way, autobiographical memory functions to help people achieve their explicit goals.

Figure 1 depicts the influence of implicit and explicit motives on each step of the memory process. In the following sections, the diagram will be explained, beginning with the steps for implicit motives and then a review of the research evidence. Explicit motives will receive similar treatment in turn.

Implicit motives orient, direct, and select attention (e.g., McClelland, 1985b), such that people automatically attend to stimuli in the social environment that carry incentives linked to their implicit motives. Researchers have found that implicit motives are especially responsive to nonverbal cues and incentives (Schultheiss, in press). Validation for implicit motive arousal has been found by observing changes in physiological responses such as blood pressure and heart rate, hormone release, and muscle tone (see Schultheiss, in press, for a detailed review of physiological correlates). These physiological responses suggest an automatic readiness or alertness to process motive-related stimuli in the social environment. Researchers have further speculated that each implicit motive may be linked to a specific hormone pattern that is activated in a motive-relevant context to enhance memory (McClelland, 1985b; Schultheiss, in press). Once implicit motives are aroused, they are likely to influence behaviors and processes that are not accessible to or controlled by the person's self-concept or verbally represented intentions.
Perceptual images are more likely to be encoded if the images evoke the motive-related affect—for instance, a smiling face for someone with a high need for intimacy, or a successful shot into the wastebasket for a person with high implicit need for achievement. The information is not elaborated or worked over cognitively to fit the self-concept but remains as a vivid perceptual image of the experience preserved in memory similar to a flashbulb memory (Brown & Kulik, 1977). For instance, at this level, the person does not interpret an event as, “I knew I was socially skilled when she looked at me and smiled,” but rather would savor the perceptual image of the smile and reexperience the emotion of the moment. Researchers have found that people’s implicit motives do indeed determine their selective attention to social stimuli. And, implicit motives may be particularly attuned to nonverbal information. For instance, Schultheiss and Hale (2007) found that people with strong implicit power or affiliation (similar to intimacy) motivation paid more attention to facial expressions indicating dominance and friendliness, respectively.

Once these images are encoded, they may be rehearsed often because, through rehearsal, the person can reexperience the pleasure associated with the implicit motive (Woike, 1994b). And, because these experiences are encoded with rich imagery, the retrieved memories should contain a great deal of vividness. Motive-relevant memories should be more readily retrieved under conditions of motive arousal in which the person is in a pleasurable state of engagement than under neutral conditions. These memories should be emotional, vivid, and unique but not necessarily more analytical or cognitively elaborated. For example, a person may vividly recall an experience of the first meeting of a romantic partner as “love at first sight.” The memory is sensory: the sight, the voice, perhaps the touch, and the smell of the beloved. But the memory might not be cognitively elaborated as, “When she looked at me, I knew I had achieved my goal of meeting the love of my life,” but remains a vivid perceptual memory that is drawn on to experience pleasure.

**IMPLICIT MOTIVES INFLUENCE WHAT IS REMEMBERED**

When people are asked to write narratives about important and emotional experiences, their implicit motives are reflected in the content of their autobiographical stories. Those with strong achievement or power motives are consistently more likely to recall experiences about achievement, dominance, and self-mastery, whereas people with strong intimacy motives are more likely to recall experiences pertaining to love, friendship, and social belonging (McAdams, 1982, 1985; McAdams, Hoffman, Mansfield, & Day, 1996; Woike, 1994a, 1994b; Woike et al., 1999).

For instance, McAdams (1982) collected autobiographical narratives from two samples that were coded for agentic themes (e.g., personal power, increased fame or recognition) and for communal themes (e.g., love and friendship, reciprocal communication or sharing). Power and intimacy motivation scores were also obtained through the PSE. A positive correlation was found between the implicit power motivation scores and the power themes found in narratives of “peak” experiences and emotionally satisfying experiences. Likewise, there was a positive relationship between intimacy scores and intimacy themes in the descriptions of peak and satisfying experiences. However, there were no significant relationships between motive scores and less personally meaningful or affectively neutral experiences.

Woike (1994b) also found that the content of affectively pleasing experiences reflected people's implicit
(achievement/power and intimacy) motivations, but this relationship was not found for neutral experiences. In another study, McAdams et al. (1996) found that agency and communion implicit motives were correlated with agentic and communal themes, respectively, in narratives of significant autobiographical scenes, including peak experiences, turning points, and earliest memories.

Data from longitudinal diary studies show the same pattern as autobiographical narratives collected at one point in time (Woike & Polo, 2001). That is, when asked to record their daily experiences over a period of time, the content of the daily experiences correlated with people’s implicit achievement and intimacy motives.

Woike et al. (1999) also found that people recalled more emotional experiences that were related to their implicit motives. Specifically, people were asked to recall events in which they felt three positive emotions (happiness, pride, and relief) and three negative emotions (anger, sadness, and fear). They recalled experiences with motive-congruent themes for the happy and angry memories. People with strong agentic implicit motives recalled experiences of success and recognition for the happy memory and experiences of loss of face through betrayal for the angry memory. People who had strong communal implicit motives, by contrast, recalled experiences of love and friendship for the happy memory and experiences of betrayal through a violation of trust for the angry memory. Most people, regardless of their motivation, recalled an agentic event (e.g., scholastic achievement) for the pride memory and recalled a communal experience (e.g., loss of a loved one) for the sad memory. The content of the relief and fear memories was mixed, some not pertaining to agency and communion at all. For instance, many of the fear memories were about personal safety. The findings support previous claims (McClelland, 1985a, 1985b) that each implicit motive is related to specific, affective states, not affective states in general (Zurbriggen & Sturman, 2002).

To further support the claim that implicit motives modulate recall autobiographical events linked to them in ways that facilitate the attainment of specific affective end states, Woike and Bender (2008) asked people who recalled autobiographical memories why they did so. The higher a person’s implicit achievement motivation, the more strongly he or she endorsed having recalled a motive-related memory to “re-experience the emotion associated with it.” There was also a correlation between implicit achievement scores and reporting that achievement-related autobiographical events often “popped” into their minds. The findings seem to validate the spontaneous, emotional quality of memories linked to implicit motivations.

Implicit motives facilitate recall of motive-relevant material under conditions of motive arousal in controlled memory experiments. Woike, Bender, and Besner (2008) found evidence for this facilitation effect in two studies. In the first study, a correlation was found between the amount of people’s implicit achievement motivation and the number of achievement words generated and then recalled to achievement prompts under implicit motive arousal conditions (i.e., having just vividly reexperienced a success) but no such correlations for the amount of explicit achievement motivation or for the neutral words under neutral conditions. In a second study, implicit achievement motivation under implicit arousal conditions predicted the number of achievement words recalled and recall latency, such that people experiencing implicit achievement motivation arousal remembered more achievement words and did so faster than others. Again, there were no significant findings for neutral words or explicit motives.

Taken together, we see that implicit motives are linked to certain emotional arousal states that create a memory facilitation effect; this may indicate a positive feedback loop for experiencing motive-specific affect, as illustrated in Figure 1. The pattern is found in autobiographical narratives as well as in controlled memory tasks in the laboratory. The process is unique to implicit motives. Explicit motives do not predict the same patterns of recall.

**IMPLICIT MOTIVES INFLUENCE HOW EVENTS ARE REMEMBERED**

Implicit motives can determine how autobiographical events are remembered, in addition to determining what is remembered. Implicit motives are all about experiencing satisfaction. Autobiographical memory may function as a way to experience this particular brand of pleasure. For this reason, the implicit motives may be linked to organizing procedures that allow the individual to experience the intrinsic pleasure of the motive. These procedures should play a role in the organization of emotional experiences, vivid memories, and event details that are associated with the implicit motive. The memories should be organized and then recalled in a way that facilitates the arrival at the desired affective end state (Woike, 1994b). The reexperiencing of the event in memory may become a source of motive satisfaction in itself.

Specifically, the experience of agency pertains to being successful and “better than” another, as well as or having distinction from and power over another. The experience of communion, on the other hand, has to do with being close and connected to others. By extension, Woike (1994a) reasoned that implicit agentic motivation may be related to perceiving motive-relevant information in terms of differences, distinctions, and contrasts, whereas implicit communal motivation may be related
to perceiving experiences related to this motive in terms of similarities, links, and interrelationships. These different ways of organizing motive-related knowledge may allow people to experience intrinsic pleasure that is related to feeling different from others or feeling connected to others.

A narrative scoring system was developed to test this hypothesis based on a review of the cognitive complexity research literature (see Woike & Aronoff, 1992, for details). Complexity is commonly understood to include two important ways of organizing information that may be found in narrative structure: differentiation refers to the number of different and contrasting aspects, and integration refers to the number of interrelationships and connections between aspects (e.g., Schroder, Driver, & Streufert, 1967; Suedfeld, Tetlock, & Streufert, 1992; Woike, 1997). Although they are often assumed to operate together, differentiation and integration are conceptually and operationally different. Differentiation involves perceiving differences and opposition through relative comparisons and restrictions, whereas integration involves perceiving similarity, connection, interdependence, and congruity.

Based on this conceptual contrast, I suggested that differentiation and integration may be cognitive organizing procedures that serve different functions related to agentic and communal implicit motives, respectively (Woike, 1994a). When their concerns become salient, agentic people may use differentiation to attain their goals. For instance, those concerned with reaching a standard of excellence may engage in making many distinctions and comparisons between themselves and others, or between their own abilities, or against external standards and demands. A person may achieve greater effect and control by imposing restrictions on information presented to others and by being alert to the restrictions and conditions imposed on incoming information. Perceiving oneself, others, and events as differentiated may help agentic people satisfy their needs to be autonomous, competitive, and dominating in the social world. They should, therefore, be particularly likely to use differentiation in social situations related to intrinsic agentic incentives.

On the other hand, perceiving oneself, others, and events as integrated may allow communal people to satisfy their needs for greater connection with others. Drawing similarities between themselves and others, various aspects of themselves, and between people and situations may allow communal individuals to feel a greater sense of belonging. Perceiving similarities and understanding common interests provide a way for communal people to meet their needs for connection with others. Their interpersonal sensitivity may be related to seeing how people and events influence each other. In social situations that offer an opportunity for them to make such unions, they should be particularly likely to use more integration.

Note that differentiation and integration are not synonymous with agency and communion. It is possible to think about (and write about) agentic and communal topics in either a differentiated or integrated way—or by using both ways of organizing information. The examples in the appendix illustrate how autobiographical memories can be reported in narrative form with varying motivational content and organizational structure. Moreover, implicit agency motivation is not likely to lead people to perceive everything with more differentiation, nor would those high in implicit communal motivation be more likely to see all things in an integrated manner. In conditions that are relevant to their motive, they are more likely to use these ways of organizing information because those conditions provide an opportunity to experience motive-related affect. So, people should organize motive-related experiences with differentiation and integration as a way to reexperience motive-related positive affect.

Research supports these claims. For instance, Woike (1994a) had people with either a strong power or intimacy implicit motive recall an important, emotionally involving personal experience. They were then asked to form an impression of two people engaged in a task expressing either power or intimacy. People tended to recall personal experiences that related to their motives and, when in the motive-relevant condition, they also formed more differentiated or integrated impressions of the other people depending on their motive. That is, the power-motivated people formed impressions with more distinctions, contrasts, and comparisons, whereas the intimacy-motivated people formed their impression with more similarities, links, and interrelationships. So, after recalling a motive-related autobiographical experience, people organized new social information that pertained to their motives with a specific organizing structure. This suggests that motives influence not only the accessibility of autobiographical knowledge but also, once this knowledge is activated, individuals tend to organize information about other people in ways that relate to their motives. People who are concerned with power focus on differences and those concerned with intimacy focus on similarities in forming their impressions of others.

Extending this line of inquiry, Woike et al. (1999) conducted a series of studies to determine if differentiation and integration are used to organize memories of personal events. It was found that narratives of emotionally involving personal experiences related to motives were more differentiated or integrated depending on the implicit motive, such that those with strong agentic motives recalled more memories about agentic experiences and used more differentiation in doing so, whereas those with strong communal motives recalled more memories about communal
experiences and used more integration in doing so. It was also shown that differentiation or integration is used to recall memories about social situations related to motives. For example, when recalling an experience about competition, agentic people did so with more differentiation, and when recalling an experience about cooperation, communal people did so with more integration. Similarly, Woike and Polo (2001) found that the way people organize memories of daily events is also related to their implicit motives. People with strong communal motives organize their daily memories in an integrated way, and people with strong agentic motives organize their daily memories in a differentiated way. So, it appears that motive-related memories are structured differently and in ways that may allow people to experience affective end states specific to their motives.

Although autobiographical narratives have consistently shown that agentic memories are organized using differentiation and communal memories are organized using integration, it was difficult to discern whether these narrative structures reflect differences in life experiences, in writing style, or in actual memory processes. Woike, Lavezzary, and Barsky (2001) conducted a series of studies using a controlled encoding paradigm. These studies offered a more direct test of the hypothesis that implicit motives modulate accessibility of autobiographical and other motive-related knowledge and that differentiation and integration are organizing procedures linked to different motives. By controlling memory input, it was possible to investigate how motive-related stimuli structured for differentiation and integration were encoded and subsequently retrieved. In these studies, people read a short engaging vignette about a soccer team; one version emphasized competition and winning, and another version emphasized cooperation and teamwork. After a delay interval, they completed a written recognition task that asked them to identify, one by one, whether they had seen a series of statements that contained either a distinction or a connection in the previously read story. In both written and computerized recognition tasks, people with strong agentic motives who read the story about the competitive soccer team had significantly fewer errors in recognizing the statements of differentiation. People with strong communal motives who read the story about the cooperative soccer team had significantly fewer errors in recognizing the statements of integration.

Experiments were then conducted to test the generalizability of these memory effects. Implicit motives were primed through a vivid imagery exercise that varied which motive was made salient to participants. The same accuracy pattern was found in two experimental studies (one written and one computerized) conducted on a sample from the general population. The findings show that these motivational effects on memory pertain to everyone, not just those who have strong implicit motives. The studies also demonstrate that aroused implicit motives play a determinant role in encoding of new knowledge and facilitate accessibility of recently acquired knowledge related to them.

So, taken together, autobiographical narratives, encoding and retrieval of recently acquired knowledge, and controlled autobiographical memory retrieval studies offer a great deal of evidence that implicit motives influence the encoding and recall of autobiographical events related to the motive that are emotional and specific via organizational strategies that facilitate the attainment of the desired affective end state.

**EXPLICIT MOTIVES INFLUENCE WHAT IS REMEMBERED**

Returning to Figure 1, explicit motives represent a person's verbally represented sense of self and the beliefs, attitudes, decision, and goals associated with it. Therefore, explicit motives should play a determinant role in the encoding and recall of autobiographical events that pertain to the person's self-concept and values. Unlike implicit motives, no physiological correlates have been found for self-attributed motives. Rather, explicit motives are selectively responsive to verbal-symbolsic cues (e.g., being called “a good friend” or “a high achiever”). In this way, the person should readily attend to stimuli from the social environment that pertains to his or her self-concept and values. Greater attention increases the chance that information will be encoded. If the information pertains to someone’s current goals, then it should be encoded and rehearsed and integrated into a preexisting self-knowledge base (e.g., Conway & Pleydell-Pearce, 2000). Rehearsal allows people to elaborate on extrinsic goals and plan action toward explicit goal attainment. For instance, if a person has an explicit motive for dominance (e.g., she endorses questions on self-report questionnaires such as, “I like to seek positions of authority”), then she may have a specific goal of being the leader of a particular group. This goal incites acts such as regularly expressing her opinions in the group. She may encode the verbal reactions of important group members, then rehearse this information and integrate it with and/or refine her plans to achieve positions of power in the future.

So, in terms of autobiographical memory, autobiographical experiences that have changed the self-concept or were instrumental in maintaining it should also be readily encoded, rehearsed, and later recalled, because they play a central role in maintaining self-concept stability. Cognitive psychologists have drawn that distinction between remembering discrete events that have
occurred at one point in time (e.g., 25th birthday party) and general events that make up a series of routine events that are too numerous to recall as discrete events (e.g., French lessons with Professor Z). People generally organize and remember general events according to salient features or as general event scripts (e.g., walking to the professor’s office, greetings, the lessons, the praises, and the corrections) rather than remembering each lesson as a discrete memory. Routine or common experiences that pertain to self-concept maintenance and/or explicit goals related to the self should be recalled as general events because they occur frequently and repeatedly. For instance, if a person has a high explicit need for achievement, he or she may recall general events of working on a task or learning in an academic setting, whereas someone with a high explicit need for affiliation may have many general event scripts pertaining to social events, meetings, and conversations with friends and family. So, in situations in which the explicit motive is activated or salient, such as those that provide motivational incentives (e.g., earning a good grade, being told one is a good friend), these general events should be particularly accessible. In this way, cognitive processing models of autobiographical memory like Conway and Pleydell-Pearce’s (2000) model may better explain the influence of explicit motivation on memory processes than implicit motivation. That is, if the self-memory system contains an autobiographical knowledge base as well as current goals of the working self-concept, then these explicit goals should function as control processes to modulate accessibility to self-knowledge structures and to construct specific memories pertaining to those explicit goals. So, social information that relates to conscious goals and values within a given motivational domain should be encoded more readily than other information. And this information should be organized in ways that link it directly to an already well-established, cognitively elaborated, self-knowledge base. Cognitive elaboration may be a form of rehearsal that strengthens associations between explicit motives and related goals. Self-knowledge should be readily retrieved via extrinsic motivational cues that pertain to the self-concept and personal values.

Self-knowledge (or self-schemata) does indeed appear to be processed differently from non-self-related information. Self-knowledge is greater in amount and more complex than non-self-related knowledge, richer in its network of associations among components, and more frequently activated in daily processing (Markus & Sentis, 1982). People process information relevant to their self-schemata in highly efficient ways (Lewicki, 1984; Markus, 1977, 1983; Markus & Smith, 1981). For instance, people with self-schemata emphasizing particular areas, such as independence or dependence, are readily able to evaluate new information with respect to its relevance to that area, make judgments and decisions in that domain with relative ease and certainty, predict their future behavior in that area, and resist information that is counter to the predominant schema (Markus & Smith, 1981). There is, in fact, a great deal of research on the correlates of self-described personality attributes that offer validity for their cognitive constructionist nature, and not all of these traits align themselves with the agentic/communal distinction. In any case, it is beyond the scope of this article to review all the research on explicit motives, and their validity is already well-established in the literature.

A detailed description of a line of research is offered that may be viewed as a direct test of the influence of explicit motives on what is remembered as an example. DeSteno and Salovey (1997) identified people with high levels of achievement and affiliation explicit motivation using Jackson’s (1989) PRF. They were given 3 minutes to describe themselves by listing any type of self-descriptor that came to mind. After completing the generation of descriptors, participants sorted them into categories. The number of achievement descriptors increased as a monotonic function of achievement scores from the PRF; the same pattern was found for the number of affiliation descriptors and affiliation scores. They also examined the category of the first descriptor generated as a measure of accessibility. Achievement descriptors were more accessible for those with high explicit achievement motivation, and affiliation descriptors were more accessible for those high in explicit affiliation motivation. Thus, explicit motives that reflect the self-concept appear to be intrinsically linked to self-knowledge within the semantic memory system. The activation of explicit motives may, in turn, access relevant self-knowledge that may be used to develop plans of action to achieve explicit goals.

Woike, Wang, and Murphy (2008) assessed people’s explicit achievement and affiliation motivation and gave them some choice dilemmas pertaining to work versus friends and family obligations (e.g., choosing to go to a special friend’s birthday party or to study for an important exam). Their explicit motivation predicted their choices such that affiliation scores correlated with choices to fulfill social obligations and achievement scores correlated with choosing work obligations. This suggests that explicit motives determine which goals people perceive as most important to pursue when faced with a choice. This selective function should pertain to autobiographical memory as well.

In terms of autobiographical memory, research shows that people generally have greater accessibility to personal memories that are compatible with their self-concepts (e.g., Markus & Ruvolo, 1989), emotions and goals (e.g., Singer & Salovey, 1993; Stein, Wade, &
explicit achievement motivation was related to more association among achievement self-descriptors.

As another measure of self-knowledge organization, the researchers used a multidimensional scaling technique with achievement and affiliation dimensions. They were able to detect that those with a strong explicit need for achievement primarily used the achievement-relevance dimension to determine feature association, but those with a strong explicit need for affiliation primarily used the affiliation-relevance dimension. Thus, DeSteno and Salovey's (1997) study shows that self-knowledge pertaining to explicit motives is organized more tightly and elaborately than other knowledge.

Thus, evidence from self-report data, and controlled recall and encoding experiments, strongly suggests that explicit motives influence the encoding and recall of autobiographical events linked to self-concept stability change, as well as routine experiences and general event scripts that represent typical self-attributed behaviors via organizational strategies that may function to facilitate the attainment of current goals as well as to maintain the self-concept and to reaffirm self-related values.

**EXPLICIT MOTIVES INFLUENCE HOW EVENTS ARE REMEMBERED**

Explicit motives should influence how autobiographical events are remembered as well. Explicit motives reflect self-knowledge linked in cognitively elaborated networks; therefore, there should be relatively elaborate organization of self-knowledge that pertains to explicit motives. Self-knowledge does indeed appear to be organized differently from non-self-related information as evidenced by larger and more complex networks with richer associations among components (Markus & Sentis, 1982). The ease and efficiency with which people process self-knowledge suggest elaborate organization as well (Lewicki, 1984; Markus, 1977, 1983; Markus & Smith, 1981).

As previously mentioned, DeSteno and Salovey (1997) found evidence that explicit motives determine what is remembered. They also reasoned that as self-knowledge varies in relative dominance, then so will the level of organization among relevant knowledge structures. People with high levels of explicit achievement and affiliation motivation generated self-descriptors that were found to be motive related. In addition, these motive-related self-descriptors were more accessible than other descriptors. Then, as a measure of organization, they calculated the adjusted ratio of clustering. Along with finding that achievement and affiliation descriptors formed separate clusters, participants' level of explicit motivation moderated the degree of organization among the two types of descriptors. Greater levels of explicit affiliation motivation resulted in increasing levels of association among affiliation descriptors, and more explicit achievement motivation was related to more association among achievement self-descriptors.

**RESEARCH COMPARING THE INFLUENCE OF IMPLICIT AND EXPLICIT MOTIVES ON MEMORY**

This section summarizes the research that tests the influence of both implicit and explicit motives on memory within the same study. These studies offer comparative evidence that implicit and explicit motivations are linked to different memory processes. First, Wokie (1995) conducted two studies to investigate the relationship of implicit motives and explicit motives to daily reported most memorable experiences (MMEs). Participants completed implicit and explicit measures of agentic and communal motives and recorded their MMEs for 60 days. In Study 1, implicit motives were expected to be related to affective MMEs associated with the implicit motive, whereas explicit motives were expected to be related to routine MMEs corresponding to participants' self-descriptions and values. To test the hypotheses, the content of the MMEs was analyzed for affective and routine daily experiences that corresponded to the task (agentic) and social (communal) domains.

Results supported the predictions in both areas. For example, people who had a stronger implicit motive for achievement recalled more emotional experiences about achievement, such as feeling excited to have done well on a test; people who had a stronger implicit motive for intimacy recalled more emotional experiences about interpersonal relationships such as feeling good after talking with one's best friend. By contrast, the stronger
a person’s explicit motive, the more routine experiences were recalled, such that more explicit achievement motivation related to the recall of more experiences about routine achievement tasks, for example, writing a term paper, and more explicit intimacy related to the recall of more experiences about routine social activities, such as meeting friends. In a second study, implicit and explicit motives were primed in either domain. The implicit primes were vivid recollection tasks and explicit primes were open-ended self-descriptions. People were then asked to recall the first 12 MMEs that immediately came to mind. These MMEs were scored as routine or affective experiences related to each domain. The results showed that people recalled more prime-relevant MMEs in each of the priming conditions.

Thus, the findings suggest that the two different motivational systems are related to the encoding of different experiences. It appears that the motive type (agentic or communal) is related to the content of what is remembered, that is, whether it is a task-related or social experience, and the level of motivation (implicit or explicit) is related to whether it is remembered as an emotional memory or a routine experience. In these studies, there were many more routine experiences than emotional ones. The mundane nature of these routine experiences and their multiplicity suggested that they may not be remembered as discrete experiences but, rather, may be combined as general events.

Woike, McLeod, and Goggin (2003) conducted two studies to test the hypothesis that the implicit-explicit motivational systems are linked differentially to accessibility of autobiographical memories. We predicted that implicit motives would facilitate and guide recall of specific, emotional events, whereas explicit motives would facilitate and guide recall of general, self-descriptive events. In both studies, participants completed implicit and explicit measures of achievement and intimacy/affiliation motivation. In Study 1, they recalled two autobiographical memories: one emotional and the other self-descriptive. In both domains, implicit motive scores were higher when motivational content was present in the emotional memory. When motivational content was present in the self-descriptive memory, explicit motive scores were higher in both domains. In Study 2, people recalled four autobiographical memories (two agentic, two communal) that were then categorized as specific or general events. Implicit motive scores were higher for people who recalled specific agentic and specific communal events. Explicit motive scores were higher for people who recalled general achievement events but not general communal events.

Thus, the findings suggest that motives determine what is remembered and how it is remembered: Implicit motives facilitate accessibility of specific and emotionally involving experiences, whereas explicit motives are linked more strongly to accessibility of specific and general memories that correspond to a conscious representation of self. In a context that arouses an implicit motive, information most relevant to the motive is processed through automatic cognitive procedures that allow for the attainment or maintenance of affective end states. A situation that activates an explicit motive facilitates the processing of routine events linked to the self-concept and values in ways that function to aid in the attainment of current goals and plans.

AN INTEGRATIVE FRAMEWORK FOR THE FUNCTIONS OF AUTOBIOGRAPHICAL REMEMBERING

Why do we have two motivational systems? McClelland et al. (1989) argued that the implicit motivational system developed preverbally based on classically conditioned responses to basic instinctual needs for affection and control, depending on how the social environment responded to these basic needs for love and control. For example, a longitudinal study found that parents of high-achievement children are more likely to reward their children warmly for independent mastery of developmental hurdles such as toilet training and more likely to punish them for not mastering them (McClelland & Pilon, 1983). So, children who later develop a strong implicit need for achievement have been conditioned to associate the encounter of a challenge and the effort their mastery requires with a positive feeling occurring after they have surmounted the challenge.

The explicit motive system may develop later with the capacity for language and instrumental learning (McClelland et al., 1989). Through socialization, children may become less connected to their basic needs and develop more sophisticated and abstract ways of interacting with the social environment to satisfy their needs. An extensive literature suggests that the self-concept may serve to organize instrumentally conditioned goals and plans (e.g., Markus, 1983).

How important is congruency between one’s implicit and explicit motives? Both implicit and explicit motives exist within the same person, but the motive may differ in type and in strength. Even though there are no correlations between implicit and explicit motives, a congruency between the two in a given motivational domain may be useful in helping people achieve their goals. A congruency of implicit and self-attributed motives in a given domain should manifest as intrinsic and emotional involvement in a motive-related task and well-developed plans for achieving one’s goals in that domain. Congruency between one’s implicit motives and explicit
goals is positively linked to well-being (Brunstein, Schultheiss, & Grassmann, 1998). Implicit motives may energize effort and involvement, whereas explicit motives guide choice and planned action (Brunstein & Maier, 2005).

Ideally, then, if one's implicit motivation is concordant with one's self-attributed motives, specific goals and motive-related affect would also correspond. People who are relatively congruent in their implicit and explicit motives may be more likely to encode motive-related experiences and rehearse them because they are linked to both affective incentives and current explicit goals. This should increase the memory's accessibility as well as broaden the types of cues that may trigger it. The motivationally congruent person should readily recall autobiographical experiences that were intrinsically rewarding and serve to maintain the self-concept and to fulfill current goals. For example, having a powerfully emotional experience that has shaped one's identity and current plans should be especially characteristic of someone who is motivationally congruent.

Researchers (e.g., Singer & Salovey, 1993) have argued that explicit motives and goals are also clearly linked to emotional experiences. Many very salient or momentous events (cf. Pillemper, 1998) may be triggered by minimal cues and accessed quickly as vivid emotional experiences, but they may also be accessed through more cognitive cues. For instance, Singer and Salovey (1993) created the self-defining memory request," which asks participants to recall a memory that is important, evokes strong feelings, has been thought of many times, and increases self-understanding and others understanding of the participant. The memories evoked by this request are likely to be linked to both implicit and explicit motives. These may, in fact, be motivationally integrative memories that provide cohesion among different motives, self-knowledge, and emotion (Singer & Blagov, 2004).

On the other hand, someone with discordant motives, such as a strong implicit and a weak self-attributed motive, would be preoccupied with his or her past emotional experiences related to the motive. But, there would be no correlation between this preoccupation and goal achievement because the specific goals related to the motive are not at a high level of awareness. They might encode, rehearse, and recall certain emotional experiences but not have a cognitive understanding as to why. Having emotional events just "pop" into their heads or reexperiencing emotional experience for their own sake (e.g., Woike & Bender, 2008) may even hinder progress toward current goals that are related to self-attributed motives.

Incongruency as a weak implicit motive and a strong self-attributed motive could lead to motive-focused activities that are highly dependent on feedback from the social environment rather than on internal standards. People may engage in activities that reaffirm themselves cognitively but derive little pleasure from those activities. Their autobiographical memories may be made up of routine events that are self-defining but not very emotional.

Moreover, discordance between implicit and explicit motives might lead to inhibitory effects in recall. For instance, a person with a strong implicit need for intimacy and a strong explicit need for achievement may find it difficult to access intimacy experiences when the situation activates explicit achievement goals. Therefore, identifying the degree of concordance between motivational systems and the factors in the social environment that trigger them may be key to understanding the relationship between affect and cognition in modulating the accessibility of autobiographical memories.

CONCLUSION

The functional framework of the influence of implicit and explicit motives on autobiographical memory presented here offers an integrative model that advances the general understanding of how motivation influences cognitive processes. Motives at different levels of awareness are differentially activated by the social context. This interaction of motivation and situation creates a unique state of readiness that engages memory processes by modulating selective attention, encoding, rehearsal, organization, the content of retrieval, and the "how" of retrieval or reconstruction. These recall processes serve to allow the attainment of end states that are emotional or cognitive. Thus, the model explains what, how, and why people remember personal events from a dual process perspective in which either conscious or less conscious motivations are activated by the social environment to differentially influence each step of the memory process. Here, the influence of implicit motives has been given a more detailed treatment because the research is less represented in the literature. Moreover, we have conducted a good deal of the research to test the assumptions of this framework with implicit motives.

The functional framework puts research findings from narrative studies and empirical research on autobiographical memory into a broader theoretical context. Notably, by viewing implicit processes from a personality perspective, it is possible to account for a considerable amount of variability in autobiographical remembering. Cognitive processing models have dealt with individual differences in autobiographical remembering as activation of self-knowledge and neglected to consider how other types of motivation may influence memory. Psychologists readily concur that information is sometimes processed outside of awareness. Therefore,
using implicit motivation as a bridge construct to explain cognitive factors at lower levels of awareness has great utility. Theory and past research on implicit motivation were used as a foundation to extend the role of implicit processes into the new territory of autobiographical memory.

Research clearly demonstrates that these motives functionally determine both what and how autobiographical events are remembered. Specifically, implicit motives modulate encoding and recall of emotional experiences, vivid memories, and event-specific knowledge through unconscious organizing strategies that promote affective end states. Explicit motives modulate encoding and recall of events linked to self-concept stability change, as well as routine experiences and general event scripts that represent typical self-attributed behaviors that facilitate the attainment of current goals. Research from narrative essays, self-report data, and controlled recall and encoding experiments demonstrate that the two motivational systems have a differential influence on each step of the memory process.

Thus, it appears that differences in the encoding, organization, and retrieval of autobiographical memories can indeed best understood through an identification of the relationship between the motives—both conscious and less conscious—that people bring to situations and the aspects of those events that relate to their motives. Identifying the relation between implicit and explicit motives and the aspects of events that relate to these motives provides a great deal of explanatory power for the question of why some experiences are remembered and others are forgotten—or why some experiences are “fish” and others are “water.”

She was there for me in ways that no one could be. She was the best friend on earth.

Agentic Integration

Winning the X competition gave me a deep sense of accomplishment. I felt that all my years of hard work culminated in that moment of victory. I realized how hard the other players had worked to get to the competition too. I remembered all the coaches and teachers who had influenced my playing. I felt their support as I crossed the finish line.

Communal Integration

The occurrence of Y made me realize what a good friend I had in Z. We had shared a great deal together. I remember our conversation about X. It made me feel that Z and I had a special bond. The friendship that we shared together was true. I felt relieved that we would probably continue to be friends for a long time.

NOTE

1. Reliability of Picture Story Exercise—based implicit motive measures has been found to be adequate for research purposes. Interrater reliability between independent coders scoring the same stories is typically higher than 80%, indicating a high degree of objectivity of the coding rules. Schultheiss and Pang (2007) reported the following test–retest reliability coefficients derived from meta-analyses: .71 after 1 day, .60 after 1 week, .52 after 1 month, and .37 after 1 year.

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