Beyond Self-Esteem: Influence of Multiple Motives on Identity Construction

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Diverse theories suggest that people are motivated to maintain or enhance feelings of self-esteem, continuity, distinctiveness, belonging, efficacy, and meaning in their identities. Four studies tested the influence of these motives on identity construction, by using a multilevel regression design. Participants perceived as more central those identity elements that provided a greater sense of self-esteem, continuity, distinctiveness, and meaning; this was found for individual, relational, and group levels of identity, among various populations, and by using a prospective design. Motives for belonging and efficacy influenced identity definition indirectly through their direct influences on identity enactment and through their contributions to self-esteem. Participants were happiest about those identity elements that best satisfied motives for self-esteem and efficacy. These findings point to the need for an integrated theory of identity motivation.

Keywords: self-esteem, self-enhancement, identity motives

One of the least contested claims in social psychology is that people are generally motivated to protect and enhance their self-esteem. Research participants typically pay more attention to, and show more confidence in, information that supports a positive self-evaluation; often engage in a variety of self- and group-enhancing strategies when making interpersonal and intergroup social comparisons; and generally see themselves and members of their group as "better than average" on a wide range of evaluative dimensions. When self-esteem is threatened, people often become sad or depressed, or they may engage in active attempts to mini-mize the damage to their identities, sometimes by adjusting cognitions or behavior and sometimes by responding with hostility toward the source of the threat (for recent reviews, see Hoyle, Kernis, Leary, & Baldwin, 1999; Sedikides & Gregg, 2003).

However, it is increasingly argued that motives beyond self-esteem may be just as strongly implicated in identity processes and related behavior (Abrams & Hogg, 1988; Aharpour & Brown, 2002; Breakwell, 1987; Deaux, 2000; Sedikides & Strube, 1995). Research into self-evaluation now focuses on three or four motivational processes: self-enhancement, self-verification, self-assessment, and—optionally—self-improvement (e.g., Dauenheimer, Stahlberg, Spreemann, & Sedikides, 2002). Within the social identity tradition, optimal distinctiveness theory proposes that people identify with social groups to satisfy opposing motives for distinctiveness and belonging (Brewer, 1991; see also Lynn & Snyder, 2002), whereas subjective uncertainty reduction theory proposes that group identification is motivated by an overarching need for meaning (Hogg, 2000). Developed initially as a theory of identity threat and coping, identity process theory (Breakwell, 1988; Vignoles, Chryssochoou, & Breakwell, 2002a) states that the processes shaping both individual and group identities are guided by motives to protect feelings of self-esteem, continuity, distinctiveness, and efficacy.

Existing literature on identity motives is notable for its fragmentation. Despite a growing interest in the relationship between individual, relational, and group levels of self-representation (Breakwell, 1987; Deaux, 1992; Sedikides & Brewer, 2001), little attempt has been made so far to draw connections between theories of identity motivation focusing on these different parts of identity. The studies reported here were designed to redress this balance, drawing together constructs from diverse areas of theorizing. Concurrently, these studies extended a method devised by Vignoles et al. (2002a; Vignoles, 2004) for evaluating models of identity

motivation, by using multilevel modeling to test contemporaneous and prospective predictions of various dimensions of subjective identity structure.

Definitions and Assumptions

Before embarking on a project of this kind, it is essential to start from clear definitions of the key concepts to be used, especially given the complex and often inconsistent meanings given to such terms as "self," "self-concept," "identity," and "self-identity" in previous studies. In this work, we define *identity* as the subjective concept of oneself as a person. Two aspects of this definition are especially important. First, identity is defined inclusively, encompassing individual, relational, and group levels of self-representation (Sedikides & Brewer, 2001). Hence, studies into self-concept, self-evaluation, personal identity, and social identity can each inform us about the workings of identity (Breakwell, 1987).[1] Second, identity is located on the level of subjective psychological experience, rather than necessarily referring to an objective "essence" (cf. Rogers's [1961] notion of the "true self"). Hence, like all subjective meanings, identity is constructed through a complex interplay of cognitive, affective, and social interaction processes, occurring within particular cultural and local contexts (Greenwald, 1980; Marková, 1987; Reicher, 2000; Swann, 1983). An important assumption of the current studies is that these processes are guided by particular motives or goals of the individual (Breakwell, 1988).

Identity motives are defined as pressures toward certain identity states and away from others, which guide the processes of identity construction. People are not necessarily aware of these motives—nor are they necessarily unavailable to consciousness—but their operation can be inferred from their predictable effects on people's identities. Aspects of current identities that satisfy identity motives may be associated with positive emotions, be perceived as especially central or self-defining, or be emphasized in self-presentation, whereas those that frustrate identity motives may be associated with negative emotions or be marginalized, either cognitively or behaviorally. Identity motives are also likely to be reflected in people's desires and fears for their future identities: Hence, people may desire to realize possible future selves that would satisfy their identity motives but may fear the realization of possible selves that would frustrate them.[2] Thus, consciously or otherwise, people strive to maximize satisfaction and minimize frustration of these motives when constructing their identities.

We emphasize that this research is not intended to develop an overarching account of all human motives or needs (cf. Maslow, 1987). Different sets of motives have been proposed elsewhere to account for different outcomes (e.g., Oishi, Diener, Lucas, & Suh, 1999; Sheldon, Elliot, Kim, & Kasser, 2001). For example, self-determination theory focuses on motives for behavior, proposing that people are generally motivated by needs for autonomy, competence, and relatedness (Deci & Ryan, 2000).[3] Supporting the autonomy need, people report greater subjective well-being when they perceive their behavior as consistent with their identities—and thus autonomous (Chirkov, Ryan, Kim, & Kaplan, 2003; Reis, Sheldon, Gable, Roscoe, & Ryan, 2000; Sheldon et al., 2004). However, the main focus of the current research is on those motives that guide processes of identity construction, arguably preceding questions of the perceived autonomy of behavior. Iden-

tity motives, thus defined, affect a wide range of outcomes, including cognitive biases (e.g., Zuckerman, 1979), psychological and physical well-being (e.g., Straumann, Lemieux, & Coe, 1993; Taylor & Brown, 1988), consumerism (e.g., Lynn & Snyder, 2002), interpersonal relations (e.g., Bushman & Baumeister, 1998; Schimel, Pyszczynski, Greenberg, O'Mahen, & Arndt, 2000), and intergroup relations (e.g., Tajfel, 1982).

Deriving a List of Identity Motives

Apart from a need for self-esteem, there is little consensus about the range of motives that influence identity construction. Moreover, commonalities between the motives proposed in separate traditions have often remained unacknowledged. Hence, we reviewed theories of the individual self-concept, of social identity, and of identity threat, aiming to identify the key motives underlying identity construction according to each theory. Some dominant theories in each field are listed in Table 1. In our review, we identified six conceptually distinct motivational goals in the literature; between them, these theories propose, or assume, that people are motivated to construct identities characterized by feelings of *self-esteem, continuity, distinctiveness, belonging, efficacy,* and *meaning.*[4] Each of these constructs draws together motivational assumptions and predictions from several theoretical perspectives.

The *self-esteem motive* refers to "the motivation to maintain and enhance a positive conception of oneself" (Gecas, 1982, p. 20). This motive is involved in an enormous range of theories to which we cannot do justice here (reviewed by Hoyle et al., 1999; Sedikides & Gregg, 2003). According to Sedikides and Strube (1997), a person's level of self-esteem may be increased directly through self-enhancement or indirectly through self-improvement,

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[1] This is not to say that distinctions drawn elsewhere between these concepts are worthless, just that one should examine the connections and similarities between levels of self-representation as well as studying each in isolation (Deaux, 1992; B. Simon, 1997).

[2] The current article is focused on predictions of cognitive, affective, and behavioral dimensions of current identity structure. Additional analyses from Studies 2 and 3, focusing on desired and feared possible future selves, will be described elsewhere (Vignoles, Manzi, Regalia, Jemmolo, & Scabini, 2005).

[3] Recently, Ryan and Deci (2003) have extended self-determination theory to consider processes of identity acquisition and maintenance. They have proposed that identity is constructed through internalization of behavior. Nevertheless, as in earlier versions of the theory, it is behavior and not identity construction that is directly motivated by autonomy, competence, and relatedness needs.

[4] A seeming omission from this list is the "autonomy need" identified in self-determination theory (e.g., Deci & Ryan, 2000). However, as discussed earlier, the key motivational claims made in this theory relate to behavior and not to identity construction. Recent research and theorizing suggest that the defining feature of autonomy is that behavior is concordant with one's self-views, whether individualistic or otherwise (Chirkov et al., 2003; Sheldon et al., 2004). However, this does not in itself presuppose the characteristics of these self-views nor the motives that may influence their construction—which is the focus of the current research. Here, considering the autonomy motive as an identity motive would lead to the seemingly tautological theoretical proposal that people are motivated to construct identities consistent with their identities. Nevertheless, we return to the autonomy motive to interpret the relationship between identity definition and enactment in Study 4.

Table 1
Identity Motives Identified in Existing Social Psychological Theories of Self and Identity Processes

Existing theories	Self-esteem	Continuity	Distinctiveness	Belonging	Efficacy	Meaning
Perspectives on self-concept, self-evaluation, and individual behavior						
Self-evaluation maintenance model (Tesser, 2000)	X					
Self-verification theory (Swann, 1983)		X				
Self-concept enhancing tactician (Sedikides & Strube, 1997)	X	X				
Sociometer theory (Leary & Baumeister, 2000)	X			X		
Uniqueness theory (Snyder & Fromkin, 1980)			X	X		
Self-determination theory (Deci & Ryan, 2000)				X	X	
Perspectives on social identity and intergroup relations						
Self-esteem hypothesis (Abrams & Hogg, 1988)	X					
Optimal distinctiveness theory (Brewer, 1991)			X	X		
Uncertainty reduction theory (Hogg, 2000)						X
Perspectives on identity threat and coping						
Self-affirmation theory (Steele, 1988)	X					X
Terror management theory (Greenberg et al., 1997)	X					
Identity process theory (Breakwell, 1993)	X	X	X		X	

and self-esteem may also be maintained through self-verification. The self-esteem motive is also implicated in intergroup relations: Threats to self-esteem can lead to increased intergroup discrimination (e.g., Fein & Spencer, 1997), although the precise role of self-esteem in social identity processes is controversial (Abrams & Hogg, 1988; Turner, 1999). Self-esteem maintenance mechanisms appear interchangeable: After self-enhancing on one task, research participants typically show reduced self-enhancement on subsequent tasks (reviewed by Tesser, 2000). Studies suggest that people strive for positive self-conceptions in all cultures but that they adopt different strategies (Heine et al., 2001; Muramoto, 2003) and self-enhance on different dimensions (Sedikides, Gaertner, & Toguchi, 2003) according to cultural beliefs and values.

The *continuity motive* refers to the motivation to maintain a sense of "continuity across time and situation" within identity (Breakwell, 1986, p. 24). According to philosophers, a defining condition of identity is to show some form of continuity (Wiggins, 2001). Research has shown that information consistent with people's existing self-conceptions receives more attention, is better recalled, and is interpreted as more reliable (reviewed by Shrauger, 1975) and that people often try to find or create social contexts that provide self-verifying feedback (Swann, 1983). These processes occur for both individual and group identities (Chen, Chen, & Shaw, 2004). Continuity does not necessarily preclude change: People can also maintain continuity by constructing life stories, including progressions and turning points (Chandler, Lalonde, Sokol, & Hallett, 2003; McAdams, 2001). Deficits in individual or group continuity are associated with negative affect, reductions in group identification, development of group schisms, and even suicide (Chandler et al., 2003; Rosenberg, 1986; Sani, 2005).

The *distinctiveness motive* pushes toward the establishment and maintenance of a sense of differentiation from others (Vignoles, Chryssochoou, & Breakwell, 2000). Although portrayed by some theorists as an indigenous value of Western cultures (Snyder & Fromkin, 1980), some form of distinctiveness is logically necessary in order to have a meaningful sense of identity (Codol, 1981). The distinctiveness motive has been implicated in a wide variety of

outcomes, including memory biases, person and group perceptions, consumer preferences, self-stereotyping, group identification, subjective well-being, interpersonal attraction, and various forms of intergroup differentiation (reviewed by Vignoles et al., 2000). Interpersonal and intergroup differentiation appear to be means of satisfying the same underlying motive: Threats to individual distinctiveness can lead to increased identification with distinctive groups as well as a preference for more restrictive definitions of the boundaries of in-group membership (Brewer & Pickett, 1999; Pickett, Silver, & Brewer, 2002).

The *belonging motive* refers to the need to maintain or enhance feelings of closeness to, or acceptance by, other people, whether in dyadic relationships or within in-groups. This need has been identified by Baumeister and Leary (1995) as a "fundamental human motivation" (p. 497), whose sphere of influence is not restricted to identity processes (see also Deci & Ryan, 2000). Nevertheless, the belonging motive is included in several theories of identity motivation (Brewer, 1991; Leary & Baumeister, 2000; Snyder & Fromkin, 1980). Threats to belonging typically lead to various coping strategies, including identification with more inclusive in-groups (Pickett, Silver, & Brewer, 2002), self-stereotyping (Pickett, Bonner, & Coleman, 2002), and overestimating consensus for one's beliefs (L. Simon et al., 1997). According to sociometer theory (Leary & Baumeister, 2000), the need for belonging even subsumes the need for self-esteem. Indeed, Leary, Schreindorfer, and Haupt (1995) have reinterpreted many supposed effects of low self-esteem, including depression, substance abuse, delinquency, and eating disorders, as reactions to real or imagined rejection by others.

The *efficacy motive* is oriented toward maintaining and enhancing feelings of "competence and control" (Breakwell, 1993, p. 205). The striving for competence has been theorized as a fundamental human motivation (Deci & Ryan, 2000), and the experience of efficacy has been conceptualized as a defining feature of identity (Codol, 1981). Although efficacy is often portrayed as a component of self-esteem, these constructs are conceptually distinct, and recent research has shown that self-liking and self-

competence are empirically distinguishable dimensions (Tafarodi & Swann, 2001). Feelings of competence and control are strong predictors of subjective well-being and of attachment security (La Guardia, Ryan, Couchman, & Deci, 2000; Reis et al., 2000; Sheldon et al., 2001). People often create illusions of efficacy, by overestimating their control over events or treating situations of chance as situations of skill (Langer, 1975; Taylor & Brown, 1988). Self-efficacy beliefs have been associated with greater subjective well-being, reductions in risky behavior among adolescents, and even better physical health and increased life span (Bandura, 1997; Caprara, Regalia, & Bandura, 2002; Regalia, Pastorelli, Barbaranelli, & Gerbino, 2001; Rodin & Langer, 1977). Deficits in self-efficacy have been associated with anorexia, depression, and death (Baumeister, 1991; Seligman, 1975).

The *meaning motive* refers to the need to find significance or purpose in one's own existence (Baumeister, 1991). Many authors have considered the search for meaning as an essential feature of human nature, portraying the sense that one's existence is meaningful as a core feature of psychological well-being (e.g., Bartlett, 1932; Frankl, 1962; McGregor & Little, 1998). The search for meaning plays a key role in coping successfully with life events, including military combat (Harmand, Ashlock, & Miller, 1993), terminal illness (Taylor, 1983), and bereavement (Golsworthy & Coyle, 1999). Although not always explicit, the need for a meaningful identity is implicated in several theories of identity processes. Self-affirmation theory (Steele, 1988) proposes that people are motivated to preserve self-integrity, which includes self-worth (self-esteem) and coherence (meaning); however, these assumed components of self-integrity have not been a focus of empirical attention. The "search for coherence" and the preservation of "integrity of the self-image" were also important aspects of Tajfel's (1969, p. 92) early thinking about social categorization; these ideas have been revived in subjective uncertainty reduction theory (Hogg, 2000), which proposes that many intergroup phenomena are driven by a need for meaning. The need for meaning is also a key idea underlying narrative and life-story approaches to identity (Baumeister & Wilson, 1996; Gergen & Gergen, 1988; McAdams, 2001).

Measuring Identity Motives

Existing evidence for motivated identity construction falls mostly into two categories: Many studies have revealed biases in how people process information about themselves (see Greenwald, 1980), whereas others have investigated people's coping responses when identity motives are threatened or frustrated (see Breakwell, 1988; Steele, 1988). However, most of these studies underrepresent the "multiplicity of identity" (Deaux, 1992, p. 17). Identity is composed of many aspects, or *identity elements*, which may vary considerably in their importance for self-definition. Yet, most studies have focused on single, preselected identity elements or, at best, multiple elements within a single domain, weakening their external validity. Moreover, most studies have tested single motives in isolation, rather than consider the interplay of multiple motives in shaping identity. Crucially, this provides no evidence for the unique contribution of each motive: For example, do people really strive for distinctiveness over and above the role of positive distinctiveness in self-esteem maintenance (Vignoles et al., 2000)?

In the current studies, we extended a method devised by Vignoles et al. (2002a; Vignoles, 2004) to address these concerns. Although this method involves using advanced statistical techniques, the central idea is quite simple: If the processes shaping identity are guided by a particular set of motives, then it should follow that elements of identity better satisfying these motives will be privileged by identity processes and, over time, will come to be perceived as more central to identity. Consider, for example, the motive for self-esteem: If I am motivated to maintain and enhance my self-esteem, then one can expect that, over time, I will come to perceive elements of my identity that satisfy my need for self-esteem (e.g., successful psychologist, happily married) as more central to my identity, and elements of my identity that frustrate my need for self-esteem (e.g., bassist in a terrible rock band, bad at sport) as less central. Hence, if I were to list a series of identity elements and then rate each element for its association with feelings of self-esteem and for its centrality within my identity, one would expect to see a positive correlation between these two sets of ratings.

Now consider if I am also motivated to maintain feelings of distinctiveness, belonging, and efficacy in my identity. In this case, one would expect that the extent to which an identity element satisfies and does not frustrate each of these motives will contribute to its relative perceived centrality within my identity. For example, I might perceive as moderately central an identity element that satisfies my needs for belonging and distinctiveness, despite offering little satisfaction of self-esteem or efficacy needs (e.g., bassist in a terrible rock band). Hence, if I were to rate a series of identity elements for their centrality within my identity and for satisfaction of a set of identity motives, one would expect to be able to predict my "centrality" ratings by using a multiple regression design, with each of my "motive satisfaction" ratings as a predictor (see Figure 1). Thus, paths from motive satisfaction to perceived centrality would provide evidence for motivational influences on identity construction.

Vignoles et al. (2002a) used this logic to compare models of identity motivation among a sample of U.K. Anglican parish priests. Supporting a self-esteem model, the association of identity
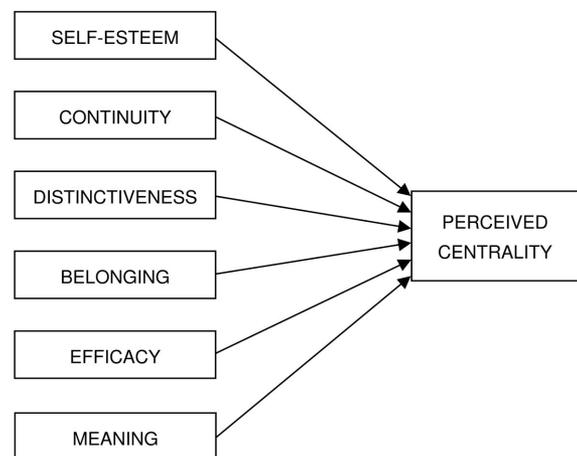

Figure 1. Conceptual model of motivational influences on perceived centrality.

elements with feelings of self-esteem was a significant positive predictor of their perceived centrality, accounting for just over 30% of within-participants variance. Adding distinctiveness, continuity, and efficacy ratings as predictors substantially improved the model fit, accounting for almost 50% of within-participants variance in perceived centrality, supporting identity process theory (Breakwell, 1993). Adding further ratings of the association of identity elements with "a sense of purpose" and with feelings of "closeness to others"—identified previously as important constructs for the clergy—resulted in a modest additional improvement in model fit, accounting for almost 55% of within-participants variance, and thus providing some support for a customized model. Hence, Vignoles et al. concluded that self-esteem was not the only motive influencing identity construction among this population: Measures of additional constructs performed similarly to self-esteem ratings, and their inclusion in the models tested significantly enhanced predictions of the priests' subjective identity structures.

The results of Vignoles et al. (2002a) provided an important first step in demonstrating the influence of motives beyond self-esteem on identity construction. However, this study also generated many new questions. First, Vignoles et al. had studied only one specific population: Indeed, one might speculate that members of the clergy would be less driven by self-esteem concerns than are other, more secular populations. Second, although to some extent Vignoles and colleagues' predictions prefigured those of the current studies, the authors based them on a context-specific adaptation of one theoretical perspective only, rather than deriving them from a comprehensive review of diverse theories. Third, the authors did not examine whether similar or different motives would be relevant to individual, relational, and group levels of identity. Fourth, the models predicted just one dimension of subjective identity structures—perceived centrality. Would other dimensions show similar or diverging motivational influences? Finally, the one-shot correlational design could not provide a clear picture of the processes underlying the effects observed.

Overview of Research Aims and Studies

Extending the research of Vignoles et al. (2002a), the studies reported here were designed to contribute to the development of an integrated model of motivated identity construction, which might potentially include motives to maintain and enhance self-esteem, continuity, distinctiveness, belonging, efficacy, and meaning. Our first aim was to establish the unique contribution of each of these motives to predictions of the perceived centrality of identity elements among various different participant groups (Studies 1 and 2). Would including identity motives beyond self-esteem significantly improve our predictions of perceived centrality? If so, how many—and which—identity motives would be needed for a comprehensive but parsimonious model of motivational influences on identity definition?

We were especially concerned with establishing whether a single model would be sufficient to predict the perceived centrality of identity elements on individual, relational, and group levels of identity (after Sedikides & Brewer, 2001). Historically, theories of individual and group identity motivation have developed as largely separate research traditions. Moreover, some theorists have argued explicitly against theorizing individual-level motives as relevant to group identity processes (e.g., Hogg & Abrams, 1993). Yet, it seemed strange to suppose that the construction of individual and group identities should be influenced by completely separate motives, especially considering the similarity of many of the motivational constructs arising from each tradition. Was this separation a theoretical necessity or historical accident? In Study 2, we framed this as an empirical question: Would we be better able to predict the perceived centrality of individual-, relational-, and group-level identity elements by constructing three separate models, or would a single model be sufficient?

Third, we extended predictions beyond the single outcome dimension of perceived centrality. Previous research has shown that different self-evaluation motives are relevant to predictions of cognitive, affective, and behavioral outcomes (Dauenheimer et al., 2002; Swann, Griffin, Predmore, & Gaines, 1987). In Study 3, we tested whether each of our six motives would be differentially relevant to predictions of perceived centrality—a cognitive dimension—and participants' happiness with their identity elements—an affective dimension. In Study 4, we extended predictions to the behavioral domain, adding a third outcome dimension of identity enactment (after Reicher, 2000).

Our final aim was to clarify the processes underlying our findings, by using a longitudinal design. We were concerned with testing whether the association of identity elements with feelings of motive satisfaction would predict their perceived centrality prospectively—which would provide greater confidence in the causal role of identity motives in shaping subjective identity structures. Hence, in Study 4 we used a cross-lagged design to test prospective predictions of cognitive, affective, and behavioral dimensions of identity as a function of motive satisfaction, and vice versa.

Study 1

Aims and Overview

Our first study was designed to test a model of identity motivation including all six motives identified above, by using the methodology developed by Vignoles et al. (2002a). Participants were practicing Christians; most were not students, and their ages ranged from 15 to 79 years. Participants freely generated a list of elements of identity content and then rated each element for its perceived centrality (dependent variable) and for its association with feelings of self-esteem, continuity, distinctiveness, belonging, efficacy, and meaning (independent variables). Our main analyses were designed to evaluate the unique contributions of each motive rating to predictions of within-participants variance in perceived centrality, as portrayed in Figure 1. We aimed to discover (a) to what extent including more than just a self-esteem motive would improve predictions of perceived centrality and (b) whether all six motives would make unique contributions to predictions of perceived centrality or whether some would be redundant. Given the wide age range, we also explored for age and gender differences within our sample.

Method

Participants and Procedure

Questionnaires were distributed at an Anglican church service, at meetings of two university Christian Unions, and at a church youth group, in

Table 2
Zero-Order Correlations Between Ratings of Identity Elements (Listwise n = 968) for Perceived Centrality and for Satisfaction of Each Hypothesized Motive

Variable	1	2	3	4	5	6	7
1. Perceived centrality	—	.57	.57	.36	.52	.45	.69
2. Self-esteem	.58	—	.49	.38	.51	.62	.67
3. Continuity	.59	.50	—	.28	.47	.37	.59
4. Distinctiveness	.36	.39	.26	—	.28	.39	.40
5. Belonging	.52	.53	.49	.26	—	.48	.66
6. Efficacy	.48	.67	.43	.36	.55	—	.59
7. Meaning	.70	.67	.59	.41	.65	.62	—

Note. Values below diagonal use raw motive ratings; values above diagonal use participant-mean centered ratings.

various locations in southern and eastern England. The research was presented as a study of identity and the self-concept. Eighty-two questionnaires were returned. Participants were 27 males and 55 females, between 15 and 79 years old (M = 37 years and 8 months, SD = 18 years and 7 months); 37 were single, 41 were married, 3 were divorced, and 1 was widowed; 29 were students; 36 worked in various occupations, including teaching, administration, health care, scientific research, and engineering; 11 were retired; and 6 were housewives.[5]

Questionnaire

Generation of identity elements. Participants were asked to specify freely 12 elements of identity content by using a slightly adapted version of the Twenty Statements Test (Kuhn & McPartland, 1954). This was located at the very beginning of the questionnaire, so that responses would be constrained as little as possible by theoretical expectations or demand characteristics, and was printed on a page that folded out from the main answer booklet, so that participants would be able to see their responses when rating and categorizing them subsequently. We requested just 12 responses as we expected that participants would find the subsequent ratings intolerable with 20 identity elements to rate on each dimension, whereas fewer responses would have left little scope for variance between identity elements within each participant. All participants provided 12 responses.

Rating of identity elements. Participants then rated each of their identity elements on eight dimensions. Each dimension was presented as a question at the top of a new page, with a block of 12 seven-point scales positioned underneath to refer to each identity element. Two questions measured the perceived centrality of each element within identity (r = .73). Six questions measured associations of each element with feelings of self-esteem, efficacy, continuity, distinctiveness, belonging, and meaning, presented in two different randomized orders. Questions used are in the Appendix.[6]

Demographic information. At the end of the questionnaire, participants were asked to supply a number of personal details and were thanked for their participation.

Results and Discussion

Evaluating Models of Perceived Centrality

As described by Vignoles et al. (2002a; Vignoles, 2004), we treated the identity element rather than the individual participant as our primary unit of analysis. Given the nested data structure, with identity elements (Level 1) clustered within participants (Level 2), we conducted multilevel regression analyses to test our predictions. We used HLM 5.04 to conduct full maximum likelihood estimation with convergence criterion of 0.000001 (Raudenbush, Bryk, Cheong, & Con-

gdon, 2001). Our hypotheses involved modeling variance within participants but not variance between participants—between-participants effects, predicting individual differences in perceived centrality, would have no meaning here. To obtain unbiased estimates of the within-participant regression weights in each model, the six predictors were centered around participant means (see Vignoles et al., 2002a). Table 2 shows zero-order correlations between all variables before and after participant-mean centering.

As a baseline for comparisons, we computed a null model predicting perceived centrality by using a random intercept only. Parameter estimates are summarized in Table 3. Modeled variance within participants was estimated as R_W^2:

$$R_W^2 = \frac{\sigma_0^2 - \sigma_1^2}{\sigma_0^2},$$

where σ_0^2 was the Level 1 residual variance of the null model and σ_1^2 was the Level 1 residual variance of the model being evaluated (Hox, 2002).[7] Model fit was assessed with likelihood ratio tests based on the deviance statistic. In all studies, we used a conservative alpha level of .01 for significance tests.

To test the self-esteem model, we added a fixed parameter for self-esteem to the null model. Parameter estimates are summarized in Table 3. The self-esteem model provided a highly significant reduction in deviance compared with the null model, $\chi^2(1)$ = 343, p < .00001. R_W^2 was calculated at 32.4%. As predicted, participants rated as significantly more central those elements of identity that they associated to a greater extent with feelings of self-esteem. This supported the influence of the self-esteem motive on pro-

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[5] One female participant did not provide her age and was therefore excluded from the analyses.

[6] Single-item measures were used here to minimize the load on participants. Note that a similar approach has been used successfully to measure global self-esteem (Robins, Hendin, & Trzesniewski, 2001), and the use of carefully worded single-item measures is well established where it is necessary for participants to make many repeated ratings on the same dimension (e.g., Reis et al., 2000).

[7] Reflecting our interest in modeling variance between identity elements within participants but not variance between participants, we defined "modeled variance" here as the proportional reduction in mean squared error for predicting variance within participants by using a given model in comparison with the baseline model (for alternative definitions and formulas, see Snijders & Bosker, 1994).

Table 3
Summary of Multilevel Regression Models Predicting Perceived Centrality of Identity Elements (Level 1: n = 958) Nested Within Participants (Level 2: n = 81) With Random Intercept and Fixed Slopes for Motive Ratings

Parameter	Null model		Self-esteem model					6-motive model					
	B	SE	B	SE	β	$\Delta\chi^2$ (df = 1)	p	B	SE	β	$\Delta\chi^2$ (df = 1)	p	ΔR^2_W (%)
Fixed parameters													
Intercept	4.90	.08	4.90	.08				4.90	.08				
Self-esteem			0.55	.03	.60	343	<.00001	0.13	.03	.14	16	<.00001	0.9
Continuity								0.20	.03	.21	53	<.00001	2.9
Distinctiveness								0.07	.02	.07	8	<.01	0.4
Belonging								0.07	.03	.07	5	.03	0.3
Efficacy								−0.02	.03	−.02	1	.45	0.0
Meaning								0.36	.03	.41	106	<.00001	5.9
Residual variance													
Level 2 (τ^2)	0.34	.08	0.40	.08				0.53	.12				
Level 1 (σ^2)	2.12	.10	1.43	.07				1.01	.06				
Deviance	3,524			3,181					2,847				

Note. Deviance is calculated as $-2 \times$ log likelihood. Values of β for each parameter are derived from B weights by multiplying by the standard deviation of the predictor and dividing by the standard deviation of the outcome (Hox, 2002); because between-participant variance was excluded from these analyses by within-participant centering, we used the within-participant standard deviations. Values of $\Delta\chi^2$ and ΔR^2_W for each parameter are derived from comparisons with an alternative model without that parameter.

cesses of identity construction—seemingly, participants were constructing their identities to emphasize those elements that gave them the greatest sense of self-esteem.

Next, we tested whether the self-esteem model could be improved upon by considering further motives. To test a six-motive model, we added fixed parameters for continuity, distinctiveness, belonging, efficacy, and meaning to the self-esteem model. Parameter estimates are summarized in Table 3. This model showed a highly significant reduction in deviance compared with the null model, $\chi^2(6) = 677$, $p < .00001$, and compared with the self-esteem model, $\Delta\chi^2(5) = 334$, $p < .00001$. R^2_W was calculated at 53.8%, a substantial improvement over the self-esteem model. Thus, it appeared that motives beyond self-esteem were influencing identity construction among these participants.

As a conservative test of the role of each motive within this model, we calculated six further models, omitting one predictor at a time so as to establish the improvement in model fit provided after accounting for all other predictors ($\Delta\chi^2$). These values are included in Table 3. Unique contributions of four of the motive ratings reached a .01 level of significance: self-esteem ($\beta = .14$), continuity ($\beta = .21$), distinctiveness ($\beta = .07$), and meaning ($\beta = .41$). Thus, each of these motives appeared to have a unique role in shaping the perceived centrality of identity elements within these individuals. Effects of both continuity and meaning were substantially stronger than that of self-esteem.

On the other hand, the unique contribution of the belonging rating was only marginally significant ($\beta = .07$, $p = .03$), and that of the efficacy rating was nonsignificant. This is not to say that these constructs were unrelated to perceived centrality. In both cases, the zero-order correlations shown in Table 2 were comparable in magnitude ($r = .52$ and .45, respectively) with those of the motives that did reach significance (r ranged from .36 to .69). Moreover, the marginal contribution of belonging was of a similar magnitude to that of the distinctiveness rating—although statisti-

cally less reliable. Hence, we did not rule these motives out of further consideration, but we considered them potential candidates for omission from a more parsimonious model of motivational influences on identity construction.

Exploring Gender and Age Differences

Finally, we turned to a systematic exploration of gender and age differences in the weights on each motive rating. We entered gender (dummy coded: female = −1, male = 1) and age (grand-mean centered) as Level 2 predictors of the Level 1 weights on each motive rating, to test for cross-level interactions. A significant cross-level interaction would mean that the weight of perceived centrality on a given motive-satisfaction rating varied according to the age or gender of the participant. However, these effects did not significantly improve the model fit, $\chi^2(12) = 17$, $p = .16$, nor did any single cross-level interaction effect reach significance, although the weight on continuity was marginally higher among males than among females ($p = .04$). Thus, our findings were similar among males and females, and we found no reliable age trends across more than six decades of the life span.

Study 2

Aims and Overview

Our first study showed that participants typically perceived as more central those identity elements that provided a greater sense of self-esteem, continuity, distinctiveness, and meaning. Findings were more equivocal for the belonging and efficacy motives: Both ratings showed univariate associations with perceived centrality, but neither made a significant unique contribution to our predictions after accounting for effects of the other four motives. We now sought to replicate these results among participants from two

different European nations: the United Kingdom and Italy. Data were collected as part of a larger study into identity during two life transitions: leaving high school and becoming a parent (see also Manzi, Vignoles, Regalia, & Scabini, 2005; Vignoles et al., 2005). As before, our main analyses compared models predicting the perceived centrality of identity elements within participants. However, we now included a four-motive model (self-esteem, continuity, distinctiveness, and meaning) for comparison with the simpler self-esteem model and with the more complex six-motive model.

A particular concern was to establish whether a single theoretical model would generalize to identity elements on individual, relational, and group levels of self-representation (after Sedikides & Brewer, 2001) or whether different models would be required for each level, as has often been assumed. To test this, we needed to classify participants' identity elements into individual, relational, and group levels. As noted by Brewer (2001), such classification is often ambiguous from the researcher's perspective, such that a single element of identity may convincingly be interpreted on more than one level of self-representation. Hence, we asked participants to categorize their own identity elements into individual, relational, and group levels. We used this classification to test whether a single statistical model could be applied to elements on all three levels or whether the model fit would be improved by allowing parameters to vary across levels of self-representation.

Finally, we conducted a detailed test of the generality of our findings, testing for differences in the regression weights on each motive rating according to nationality (British, Italian), gender, and life stage (leaving high school, expecting a first baby), as well as higher order interactions.

Method

Participants and Procedure

Questionnaires were distributed to school leavers (the equivalent of high school seniors in the United States) and to expecting first-time parents, respectively, through schools and through health services and antenatal classes. A total of 479 participants completed the questionnaires. Of these, 233 were school leavers, ages 17 to 21 years ($M = 18$ years and 9 months, $SD = 8$ months), and 246 were expecting first-time parents, ages 20 to 53 years ($M = 32$ years and 5 months, $SD = 4$ years and 5 months); 288 were female and 189 were male; 258 were resident in Italy and 221 were resident in the United Kingdom.[8] As an index of their socioeconomic status, school leavers reported that 33.0% of their fathers and 24.9% of their mothers were educated to degree level or above, although 80% of participants intended to go to university themselves in the autumn after leaving school; among the first-time parents, 50.0% of expecting fathers and 58.1% of expecting mothers were educated to degree level or above; 94.9% of expecting fathers and 78.4% of expecting mothers were in full-time employment. School leavers completed the questionnaire between May and June of 2002, shortly before and during the period of their final exams; expecting first-time parents completed the questionnaire between May of 2002 and June of 2003, between 5 and 9 months into pregnancy.

Participants resident in the United Kingdom responded in English, and participants resident in Italy responded in Italian. The translation was accomplished by four members of the research team, all fluent in both languages, by using a cultural decentering approach (Werner & Campbell, 1973) whereby a draft version of the questionnaire in English was translated into Italian, but changes were also permitted in the English version where we encountered ambiguities in reaching a translation.

Questionnaire

Measures were included in a larger questionnaire concerning identity, subjective well-being, family processes, and perceptions of the forthcoming life transition (see also Manzi, Regalia, & Vignoles, in press; Manzi et al., 2005; Vignoles et al., 2005). Only those measures used in the current analyses are described here.

Generation and rating of identity elements. As in Study 1, participants first listed freely up to 12 identity elements. Just under 78% of participants provided 12 responses ($M = 11.1$, $SD = 2.0$). They then rated their responses on eight dimensions. Two questions measured the perceived centrality of each element within identity ($r = .68$). Six questions measured associations of each element with feelings of self-esteem, efficacy, continuity, distinctiveness, belonging, and meaning.

Classification of identity elements. Participants were then asked to place each of their responses into one of three categories, according to whether it reflected an individual characteristic, a personal relationship, or a group membership. Out of a total of 5,318 identity elements, just 196 (3.7%) were not coded or were placed in more than one category. Of the remaining elements, 50.2% were coded as individual characteristics, 26.1% were coded as personal relationships, and 23.7% were coded as group memberships. Modal responses among those coded as individual characteristics were happy ($n = 65$), ambitious ($n = 25$), and stubborn ($n = 22$). Modal responses among those coded as personal relationships were friend ($n = 88$), daughter or son ($n = 90$), and sister or brother ($n = 75$). Modal responses among those coded as group memberships were student ($n = 76$), man or woman ($n = 44$), and human being ($n = 20$).

Demographic information. At the end of the questionnaire, participants were asked to supply a number of personal details and were given the opportunity to request a summary of findings.

Results and Discussion

Comparing Models of Perceived Centrality

As in Study 1, all motive ratings were centered within participants. Table 4 shows zero-order correlations between all variables before and after participant-mean centering. We then compared four multilevel regression models: a null model predicting perceived centrality with random intercept only; a self-esteem model, adding a fixed effect of the self-esteem rating; a four-motive model, adding fixed effects of continuity, distinctiveness, and meaning ratings; and a six-motive model, adding fixed effects of belonging and efficacy ratings. Model parameters are shown in Table 5.[9]

The self-esteem model provided a highly significant reduction in deviance compared with the null model, $\chi^2(1) = 1509$, $p < .00001$. R_W^2 was estimated at 27.7%. As in Study 1, participants rated as more central those elements of identity that they associated with greater feelings of self-esteem.

The four-motive model provided a highly significant reduction in deviance compared with the null model, $\chi^2(4) = 2,591$, $p < .00001$, and compared with the self-esteem model, $\Delta\chi^2(3) = 1,083$, $p < .00001$. R_W^2 was calculated at 42.8%, a substantial improvement over the self-esteem model. Standardized beta

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[8] Two participants did not specify their gender, and 4 did not specify their nationality. Additionally, 23 participants in the U.K. sample specified dual or non-British nationalities. These participants were excluded from analyses of demographic differences but were included elsewhere.

[9] Preliminary analyses testing a six-motive model only among Italian participants were reported by Manzi et al. (in press).

Table 4
Zero-Order Correlations Between Ratings of Identity Elements (Listwise n = 5,114) for Perceived Centrality and for Satisfaction of Each Hypothesized Motive

Variable	1	2	3	4	5	6	7
1. Perceived centrality	—	.53	.48	.39	.30	.42	.56
2. Self-esteem	.54	—	.40	.36	.35	.63	.59
3. Continuity	.49	.44	—	.31	.29	.35	.48
4. Distinctiveness	.37	.36	.32	—	.03	.30	.37
5. Belonging	.33	.39	.34	.11	—	.27	.42
6. Efficacy	.45	.67	.40	.32	.35	—	.46
7. Meaning	.56	.59	.51	.38	.46	.49	—

Note. Values below diagonal use raw motive ratings; values above diagonal use participant-mean centered ratings.

weights ranged from .13 (distinctiveness) to .26 (meaning). As a conservative test of the contribution of each motive within this model, we calculated a series of models omitting one predictor at a time, so as to establish the improvement in model fit provided uniquely by each predictor ($\Delta\chi^2$) and the proportion of variance modeled uniquely by each predictor (ΔR_W^2). These values are shown in Table 5. All predictors made highly significant unique contributions to predictions of perceived centrality, all $\Delta\chi^2$s(1) ≥ 119, all ps < .00001. Ratings for self-esteem, continuity, and meaning each made moderate unique contributions to the modeled variance (ΔR_W^2 ≥ 3.5%). The unique contribution of the distinctiveness rating was smaller but was not negligible (ΔR_W^2 = 1.5%). These results replicated the finding of Study 1 that participants perceived as more central those identity elements that gave them a greater sense of self-esteem, continuity, distinctiveness, and meaning. None of these four motives was redundant in predictions of the perceived centrality of identity elements.

The six-motive model provided a highly significant reduction in deviance compared with the null model, $\chi^2(6) = 2,623$, $p <$ .00001, and compared with the four-motive model, $\Delta\chi^2(2) = 31$, $p < .00001$, but R_W^2 was calculated at 43.2%, an improvement of

just 0.4% over the four-motive model. Although the unique contributions of the belonging and efficacy ratings were both statistically significant, the weights on these motive ratings were very small (β = .05) compared with those on the other four motive ratings (β ranged from .14 to .24). Neither motive rating accounted uniquely for more than 0.2% of the variance within participants in perceived centrality. Thus, although all parameters were statistically significant within the six-motive model, the four-motive model was judged to provide comparable predictions of perceived centrality with greater parsimony.

As in Study 1, despite zero-order correlations comparable with those of the other motives, belonging and efficacy ratings did not make substantial unique contributions to predictions of perceived centrality. Comparing parameters of the four- and six-motive models in Table 5 helps to explain why this might be the case. Although the regression weights on all motives of the four-motive model were more or less maintained in the six-motive model, the unique contribution of the self-esteem rating to modeled variance was substantially eroded—from 3.5% in the four-motive model to 1.9% in the six-motive model. Thus, much of the variance contributed uniquely to the four-motive model by the self-esteem

Table 5
Summary of Multilevel Regression Models Predicting Perceived Centrality of Identity Elements (Level 1: n = 5,114) Nested Within Participants (Level 2: n = 466) With Random Intercept and Fixed Slopes for Motive Ratings

Parameter	Null		SEM		4MM						6MM					
	B	SE	B	SE	B	SE	β	$\Delta\chi^2$	p	ΔR_W^2 (%)	B	SE	β	$\Delta\chi^2$	p	ΔR_W^2 (%)
Fixed parameters																
Intercept	5.33	.03	5.33	.03	5.33	.03					5.33	.03				
Self-esteem			0.42	.01	0.19	.01	.24	272	<.00001	3.5	0.16	.01	.20	151	<.00001	1.9
Continuity					0.18	.01	.22	274	<.00001	3.5	0.17	.01	.21	245	<.00001	3.1
Distinctiveness					0.11	.01	.13	119	<.00001	1.5	0.12	.01	.14	128	<.00001	1.6
Belonging											0.04	.01	.05	18	<.0001	0.2
Efficacy											0.04	.01	.05	12	<.001	0.1
Meaning					0.21	.01	.26	311	<.00001	4.0	0.20	.01	.24	242	<.00001	3.0
Residual variance																
Level 2 (τ^2)	0.35	.03	0.40	.03	0.42	.03					0.42	.03				
Level 1 (σ^2)	1.82	.04	1.32	.03	1.04	.02					1.04	.02				
Deviance	18,107		16,598		15,516						15,484					

Note. Deviance is calculated as $-2 \times$ log likelihood. Values of β were derived from B weights by using within-participant standard deviations. Values of $\Delta\chi^2$ (with 1 df) and ΔR_W^2 for each parameter are derived from comparisons with an alternative model without that parameter. SEM = self-esteem model; 4MM = four-motive model; 6MM = six-motive model.

rating was shared with the belonging and efficacy ratings. Could the contributions of belonging and efficacy to perceived centrality be mediated by self-esteem? We tested this in Study 4.

Generality Across Levels of Self-Representation

Our next analyses tested whether a single model would be adequate or three different models would be needed for individual, relational, and group levels of self-representation. First, we tested three separate models, selecting only the identity elements on each level of self-representation. In each case, strongest predictors of perceived centrality were self-esteem, continuity, distinctiveness, and meaning (all $ps \leq .01$); weights on belonging and efficacy were weaker and varied in significance.[10]

To examine whether the strengths of each motive varied across levels of self-representation, we then compared models in which the regression weights on each motive rating were or were not allowed to differ for individual-, relational-, and group-level identity elements. We created dummy contrasts to identify relational- and group-level identity elements. Motive ratings were centered within each level of self-representation within participants to obtain uncontaminated estimates of the within-participant regression weights on each level of self-representation. We then compared three models: a baseline model with random intercept and random effects for the two dummy contrasts, a constrained model with fixed main effects for each of the six motive ratings, and an unconstrained model with the addition of cross-product terms of these predictors with the two dummy contrasts—so that regression weights for each motive could vary across the three levels of self-representation. Replicating previous analyses, the constrained model provided a highly significant reduction in deviance compared with the baseline model, $\chi^2(6) = 1,990$, $p < .00001$, and accounted for an estimated 41.3% of the variance in perceived centrality within levels of self-representation within participants. The unconstrained model showed a nonsignificant improvement in model fit, $\chi^2(12) = 17$, $p = .16$, and accounted for very little additional variance ($\Delta R_W^2 = 0.3\%$). None of the cross-product terms reached conventional levels of statistical significance. Hence, there was no evidence to suggest that any of the identity motives examined had a differential influence on the perceived centrality of identity elements on different levels of self-representation—seemingly, similar motives were at work on all three levels.[11]

Demographic Differences

Finally, we explored for gender, life stage, and national differences in the weights on each motive rating within the six-motive model. We created dummy variables for gender (female = −1, male = 1), life stage (school leaver = −1, first-time parent = 1), and nationality (Italian = −1, British = 1), as well as cross-products of these variables to represent two- and three-way interactions, defining a saturated $2 \times 2 \times 2$ model. We entered these variables as Level 2 predictors of the Level 1 weights on each motive rating, to test for cross-level interaction effects. Including all possible interactions resulted in a significant improvement in model fit, compared with a model without interaction effects, $\chi^2(42) = 119$, $p < .00001$. However, the magnitude of these differences was small: Although we found some significant dif-

ferences in the weights on each motive rating according to nationality, gender, and life stage, the 42 interaction effects we modeled accounted together for a total of just 1.5% of within-participants variance in perceived centrality, and no single effect accounted for more than 0.2%. Thus, the results showed considerable generality across the groups sampled here.[12]

Study 3

Aims and Overview

In Studies 1 and 2, we had demonstrated the relevance of four motives—for self-esteem, continuity, distinctiveness, and meaning—to the construction of identity among male and female participants across six decades of the life span (Study 1) and in two different countries (Study 2). Motives for efficacy and belonging were supported only weakly and inconsistently. However, one possibility was that our relative failure to find effects of these motives was specific to the relatively cognitive outcome dimension of perceived centrality. Studies into self-evaluation suggest that cognitive and affective domains of identity are shaped by different motivational processes: Typically, self-verification effects are found for cognitive outcomes, and self-enhancement effects are found for affective outcomes (Shrauger, 1975; Swann et al., 1987). Hence, our third study tested the possibility that each of the six motives would be differentially relevant to cognitive and affective outcomes, comparing predictions of perceived centrality—a cognitive dimension—with predictions of participants' happiness with their identity elements—an affective dimension—among a sample of undergraduate students.

Method

Participants and Procedure

In exchange for course credit, 96 2nd-year undergraduate psychology students at the University of Sussex responded to an adapted version of the questionnaire used previously, during March and December of 2002.

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[10] Full details of these results are available from Vivian L. Vignoles on request.

[11] Note that this is not to say that the theoretical distinction between individual, relational, and group levels of self-representation is meaningless. Although not our main focus, we also explored differences between levels of self-representation in mean ratings on each dimension in the study. Compared with ratings of individual characteristics, distinctiveness ratings averaged significantly lower for personal relationships and even more so for group memberships, whereas belonging ratings averaged significantly higher for group memberships and even more so for personal relationships, consistent with intuitive interpretations of these categories. Personal relationships were also rated significantly higher than either individual characteristics or group memberships as sources of self-esteem, continuity, and meaning. Moreover, personal relationships were perceived on average as significantly more central and group memberships as significantly less central than were individual characteristics.

[12] Full details of these results are available from Vivian L. Vignoles on request.

Table 6
Zero-Order Correlations Between Ratings of Identity Elements (Listwise n = 1,141) for Satisfaction of Each Hypothesized Motive and Scores for Perceived Centrality and Happiness

Variable	1	2	3	4	5	6	7	8
1. Centrality	—	.49	.51	.48	.36	.40	.42	.59
2. Happiness	.43	—	.68	.41	.16	.51	.60	.55
3. Self-esteem	.48	.70	—	.42	.31	.51	.68	.64
4. Continuity	.49	.48	.49	—	.22	.32	.47	.47
5. Distinctiveness	.36	.16	.31	.24	—	.10	.25	.35
6. Belonging	.37	.52	.55	.43	.13	—	.49	.52
7. Efficacy	.39	.63	.73	.37	.21	.39	—	.54
8. Meaning	.58	.54	.62	.50	.37	.53	.54	—

Note. Values below diagonal use raw motive ratings; values above diagonal use participant-mean centered ratings.

Participants were 86 women and 10 men,[13] between 19 and 51 years old (M = 23 years and 6 months, SD = 6 years and 2 months). Most responded during organized research participation sessions, although 6 participants answered the questionnaire in their free time. All were subsequently debriefed by e-mail about the main aims and findings of the study.

Questionnaire

Measures were included in a larger questionnaire concerning identity motives and possible future selves (see also Vignoles et al., 2005). As in the preceding studies, participants first generated 12 identity elements. They then rated the perceived centrality of their 12 identity elements (cognitive outcome), but they also rated their happiness with each identity element (affective outcome). After several intervening measures, participants rated their identity elements for satisfaction of each motive.

Results and Discussion

As before, motive satisfaction ratings were centered within participants. Table 6 shows zero-order correlations between all variables. Our main analyses involved computing multivariate multilevel models. Following the recommendations of Raudenbush et al. (2001), we computed three-level models, with centrality and happiness scores (Level 1) nested within identity elements (Level 2) nested within participants (Level 3), using dummy indicators to identify the two outcome variables.

We first tested whether each motive was differentially relevant to predictions of cognitive and affective outcome dimensions: Would a single model be sufficient, or would different models be needed to predict the perceived centrality and happiness ratings? To test this, we compared models in which the regression weights of the two outcomes were or were not allowed to vary independently. We computed three models: a baseline model including an intercept and the dummy indicator for the happiness ratings, both random at Levels 2 and 3; a constrained model with the addition of fixed effects of each of the six motives predicting Level 2 variation in the intercept; and an unconstrained model with the further addition of fixed effects of each of the six motives predicting Level 2 variation in the dummy indicator—meaning effectively that predictors of perceived centrality and happiness were free to vary independently. The constrained model provided a highly significant reduction in deviance compared with the baseline model, $\chi^2(6) = 981$, $p < .00001$, accounting for an estimated 39.7% of within-participants variance in perceived centrality and an estimated 50.3% of within-participants variance in happiness with

identity elements. However, the unconstrained model provided a highly significant additional improvement, $\Delta\chi^2(6) = 189$, $p < .00001$, accounting for a further 4.5% and 4.2% of within-participants variance in perceived centrality and happiness, respectively. The two outcomes showed significantly different regression weights on all six motive ratings: Continuity, distinctiveness, and meaning were stronger predictors of perceived centrality than of happiness, whereas self-esteem, efficacy, and belonging were stronger predictors of happiness than of perceived centrality; all $\Delta\chi^2$s(1) ≥ 8, all ps < .01.

To aid interpretation of these differences, we recomputed the baseline and unconstrained models with an alternative Level 1 structure, by using the two dummy indicators to create separate intercepts for perceived centrality and happiness, both random at Levels 2 and 3 (baseline model), and adding fixed effects of each of the six motive ratings as predictors of Level 2 variation in each intercept (unconstrained model). Results are shown in Table 7. Because constraints on these models were equivalent to the preceding analyses, the deviance and residual variance estimates are unchanged: To summarize, the unconstrained model showed a highly significant overall fit, $\chi^2(12) = 1,170$, $p < .00001$, accounting for an estimated 44.2% and 54.6% of within-participants variance in perceived centrality and happiness, respectively. We should also note that the unconstrained model accounted for an estimated 86.2% of within-participants covariance between centrality and happiness ratings. This suggests that these ratings were tapping into largely separate domains of identity functioning, after accounting for their shared motivational influences. Strongest predictors of perceived centrality were meaning, continuity, and distinctiveness ($\beta = .29, .22,$ and $.16$, respectively; all ps < .00001), whereas self-esteem and belonging made smaller contributions ($\beta = .12$ and $.09$, respectively; both ps < .01), and the contribution of efficacy did not reach significance. Strongest predictors of happiness with identity elements were self-esteem, efficacy, and belonging ($\beta = .39, .20,$ and $.17$, respectively; all ps < .00001), whereas continuity and meaning made smaller contributions ($\beta = .10$ and $.09$, respectively; both ps < .01), and distinctiveness made a small but significant negative contribution ($\beta = -.07$; $p < .01$).

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[13] We were not unduly concerned by the relative scarcity of male respondents in Studies 3 and 4, given that no substantive gender differences had been apparent in Studies 1 and 2.

Table 7

Summary of Multivariate Multilevel Regression Models Predicting Perceived Centrality and Happiness Ratings (Level 1: n = 2,284) of Identity Elements (Level 2: n = 1,143) Nested Within Participants (Level 3: n = 96) With Separate Random Intercepts

	Baseline model		Unconstrained model					
Parameter	Estimate	SE	Estimate	SE	β	Δχ² (df = 1)	p	ΔR²_W (%)
Fixed effects predicting perceived centrality (C) of identity elements (cognitive outcome)								
Intercept (C)	5.00	.07	5.00	.07				
Self-esteem			0.10	.03	.12	11	<.001	0.6
Continuity			0.20	.02	.22	66	<.00001	3.6
Distinctiveness			0.15	.02	.16	38	<.00001	2.1
Belonging			0.07	.02	.09	10	<.01	0.5
Efficacy			0.02	.03	.03	1	.43	0.0
Meaning			0.25	.03	.29	71	<.00001	3.9
Fixed effects predicting happiness (H) with identity elements (affective outcome)								
Intercept (H)	5.18	.11	5.18	.11				
Self-esteem			0.38	.03	.39	128	<.00001	5.9
Continuity			0.11	.03	.10	17	<.0001	0.7
Distinctiveness			−0.08	.03	−.07	9	<.01	0.4
Belonging			0.16	.02	.17	42	<.00001	1.9
Efficacy			0.20	.03	.20	45	<.00001	2.0
Meaning			0.09	.03	.09	8	<.01	0.4
Level 3 random variance (τ^2)								
Centrality	0.26	.06	0.34	.06				
Happiness	0.87	.16	1.00	.16				
Covariance C*H	0.10	.07	0.18	.07				
Level 2 residual variance (σ^2)								
Centrality	1.93	.08	1.08	.05				
Happiness	2.63	.11	1.19	.05				
Covariance C*H	1.09	.08	0.15	.04				
Deviance	8,291		7,120					

Note. Deviance is calculated as $-2 \times$ log likelihood. Values of β were derived from B weights by using within-participant standard deviations. Values of Δχ² and ΔR²_W for each parameter are derived from comparisons with an alternative model without that parameter.

Although the zero-order correlation between distinctiveness and happiness ratings was positive, distinctiveness was a significant negative predictor of happiness in the six-motive model, indicating a suppression effect. Vignoles et al. (2000) have argued that distinctiveness has a dual role in identity processes: First, some form of distinctiveness is necessary for meaningful self-definition; second, positive forms of distinctiveness may contribute to self-esteem, whether through downward social comparison or (in Western cultures) because distinctiveness is socially valued. In the current context, the former role appears more relevant to cognitive processes, and the latter appears more relevant to affective processes. However, because some forms of distinctiveness may have negative implications, we reasoned that the inclusion of self-esteem as a concurrent predictor might be responsible for the suppression effect in our model of happiness, effectively controlling for effects of positive forms of distinctiveness while leaving those of negative forms of distinctiveness. Results of a post hoc analysis supported this interpretation: With self-esteem removed from the model, the negative slope for distinctiveness was reduced to nonsignificance: $B = -.03$, $\Delta\chi^2(1) = 2$, $p = .22$, $\Delta R^2_W = 0.1\%$.[14]

To summarize, predictions of cognitive and affective dimensions of identity structure showed different patterns of effects. Consistent with previous research in the self-enhancement/self-

consistency debate (Shrauger, 1975; Swann et al., 1987), association with self-esteem was a stronger predictor of the affective outcome, happiness with identity elements, whereas continuity was a stronger predictor of the cognitive outcome, perceived centrality of identity elements. As a whole, the strongest predictors of perceived centrality were meaning, continuity, and distinctiveness, whereas the strongest predictors of happiness were self-esteem, efficacy, and belonging. This supported previous findings that different motives may be differentially relevant to different outcomes and reinforced the view that none of these motives should be excluded from a comprehensive theoretical model of identity motivation.

Study 4

A limitation of the preceding studies is that we could not provide evidence of identity processes in action. In particular, we

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[14] Similar suppression effects involving the relationship between personal distinctiveness and affect were reported by Sheldon and Bettencourt (2002). A more detailed analysis of the relationship between different forms of distinctiveness and well-being is reported by Vignoles et al. (2002b).

could not be certain to what extent our results were caused by processes shaping subjective identity structures or by processes shaping the subjective meanings of identity elements. Theoretically, processes acting in either direction might be guided by identity motives—for example, I could enhance my sense of distinctiveness either by increasing the perceived centrality of those identity elements that I see as most distinctive or by increasing the perceived distinctiveness of those identity elements that are most central to me. However, these processes could not be separated easily by using data collected at a single time point. Hence, our final study used a longitudinal design to test over a 2-month period prospective predictions of cognitive, affective, and behavioral dimensions of identity structure and of ratings of identity elements for satisfaction of each motive.

Recent research into self-evaluation motives has shown that processes of self-enhancement, self-verification, and self-assessment are differentially relevant to cognitive, affective, and behavioral outcomes (Dauenheimer et al., 2002). Hence, as before, we tested predictions of perceived centrality and happiness, but we now extended predictions to the behavioral dimension of *identity enactment* (after Reicher, 2000), defined as the extent to which individuals strive to communicate each of their identity elements to others in everyday life—a construct akin to self-presentation. We were especially interested in including this dimension because many perspectives on identity construction emphasize the interplay of cognition and action in the acquisition and maintenance of identities (e.g., Marková, 1987; Reicher, 2000; Ryan & Deci, 2003; Stryker & Serpe, 1994). By measuring identity enactment, we were able not only to compare motivational influences on cognitive, affective, and behavioral dimensions of identity structure but also to examine the relations between these dimensions over time.

The longitudinal design would also help to illuminate the relations between identity motives. Correlations between motive satisfaction ratings in the preceding studies were consistently positive and often substantial. Some of this shared variance might be due to bidirectional relationships with our outcomes—that is, perceived centrality and positive affect affecting motive satisfaction, in addition to the effects of motive satisfaction on perceived centrality and positive affect. However, we expected on theoretical grounds that there would also be direct relationships between some motive satisfactions. In particular, theories suggested that feelings of both efficacy and belonging would contribute to feelings of self-esteem (Gecas & Schwalbe, 1983; Leary & Baumeister, 2000). Both efficacy and belonging ratings correlated strongly with self-esteem ratings across previous studies (*r* ranged from .35 to .68). Moreover, this might help to explain the small unique contributions of both efficacy and belonging ratings to predictions of perceived centrality, despite consistently strong zero-order correlations. Perhaps the contributions of these motives were mediated through that of self-esteem.

Thus, we sought to test the prospective relations both among and between our six motive ratings (self-esteem, continuity, distinctiveness, belonging, efficacy, and meaning) and three dimensions of identity structure (perceived centrality, positive affect, and identity enactment). All nine variables were measured at two time points. Each measure at Time 2 was treated as a dependent variable, controlling for its value at Time 1, with all remaining Time 1 measures as potential predictors (Finkel, 1995).

Method

Participants and Procedure

In exchange for course credit, 115 1st- and 2nd-year undergraduate psychology students at the University of Sussex responded to a revised version of the questionnaire used previously, during April 2004. Questionnaires were distributed during lectures and through a box in the Psychology Department foyer, and participants completed them in their own time. Participants were contacted 2 months later to complete a follow-up questionnaire. Follow-up questionnaires were distributed through pigeonholes in the Psychology Department, and reminders were sent by e-mail. In total, 90 participants completed the second questionnaire, representing an attrition rate of just under 22%. The final sample consisted of 82 women and 8 men, who were between 18 and 32 years old at the start of the study (*M* = 20 years and 6 months, *SD* = 2 years and 1 month). All participants subsequently received a debriefing sheet outlining the principal aims and methods of the study.

Time 1 Questionnaire

As in the preceding studies, participants first generated 12 identity elements. They then rated these identity elements for perceived centrality, positive affect, and identity enactment (2 items each). After several intervening measures, participants rated each of their identity elements for satisfaction of each of the six motives. These ratings were presented in one of two randomized orders. Finally, participants responded to some demographic questions and provided their names and e-mail addresses for the follow-up. Names and contact details were seen by two members of the research team only and were not encoded in the data file.

Time 2 Questionnaire

Participants' identity elements from the first questionnaire were photocopied and attached to the second questionnaire. At the beginning of the second questionnaire, participants were asked to indicate whether their responses were still true, needed revising, or were no longer true in any way; they were asked to replace any responses that were no longer true and to update any that needed revising. Out of 1,080 initial responses, just 4 (0.4%) were marked as no longer true, and 46 (4.3%) were marked as needing revising. Of the latter, revisions were marked on only 27 responses, a majority of which were judged to be relatively minor changes (e.g., changing "happy" to "usually happy") or updated responses within the same domain (e.g., increases in age). Hence, identity elements that had been replaced—but not those that had been revised—were excluded from our analyses.

As at Time 1, participants then rated their identity elements for perceived centrality, positive affect, and identity enactment. After completing one intervening scale, participants rated each of their identity elements for satisfaction of each of the six motives, with ratings of motive satisfaction presented in one of two randomized orders. Measures were identical to those used at Time 1.

Results and Discussion

Model Comparisons

All measures at Time 1 were centered within participants, to produce unbiased estimates of within-participant regression weights. Table 8 shows zero-order correlations between all measures at Time 1 and Time 2. We conducted separate analyses predicting each Time 2 measure according to the following models: (a) a null model, with random intercept only; (b) an autoregressive model, adding a single fixed effect of the same measure

Table 8
Zero-Order Correlations Between All Ratings of Identity Elements (Listwise n = 1,050) at Time 1 and Time 2

Variable	Time 1									Time 2								
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Time 1																		
1. Centrality	—	.53	.54	.46	.44	.30	.47	.37	.50	*.62*	.47	.50	.42	.35	.22	.44	.37	.47
2. Affect	.57	—	.52	.69	.47	.21	.56	.52	.65	.49	*.77*	.51	.66	.38	.14	.53	.53	.62
3. Enactment	.54	.52	—	.53	.35	.30	.54	.49	.51	.53	.50	*.71*	.49	.32	.24	.53	.47	.45
4. Self-esteem	.47	.68	.52	—	.44	.32	.53	.59	.66	.52	.67	.54	*.71*	.32	.27	.49	.58	.59
5. Continuity	.44	.49	.32	.46	—	.26	.40	.39	.58	.45	.47	.35	.43	*.53*	.22	.39	.37	.51
6. Distinctiveness	.28	.23	.34	.34	.26	—	.13	.24	.31	.32	.23	.29	.28	.18	*.57*	.17	.23	.25
7. Belonging	.46	.57	.52	.57	.40	.16	—	.45	.56	.46	.53	.53	.52	.32	.13	*.68*	.42	.51
8. Efficacy	.41	.53	.53	.62	.40	.27	.50	—	.52	.46	.54	.50	.55	.30	.16	.41	*.63*	.47
9. Meaning	.53	.66	.49	.67	.57	.30	.57	.52	—	.54	.64	.50	.61	.42	.25	.56	.52	*.74*
Time 2																		
10. Centrality	*.62*	.50	.51	.54	.46	.32	.45	.43	.54	—	.61	.67	.60	.44	.33	.54	.52	.60
11. Affect	.48	*.78*	.48	.68	.48	.23	.54	.53	.66	.60	—	.60	.76	.48	.18	.60	.59	.69
12. Enactment	.49	.49	*.71*	.54	.35	.30	.52	.51	.49	.66	.58	—	.61	.36	.31	.62	.57	.55
13. Self-esteem	.40	.64	.47	*.71*	.44	.30	.55	.54	.59	.60	.74	.61	—	.43	.29	.60	.65	.69
14. Continuity	.35	.41	.32	.37	*.56*	.24	.34	.32	.43	.46	.50	.39	.48	—	.14	.41	.35	.48
15. Distinctiveness	.24	.19	.24	.30	.25	*.62*	.16	.19	.26	.34	.19	.30	.32	.23	—	.18	.21	.26
16. Belonging	.40	.51	.49	.52	.41	.17	*.69*	.42	.55	.54	.59	.62	.61	.42	.22	—	.51	.61
17. Efficacy	.39	.54	.47	.63	.41	.27	.47	*.64*	.53	.53	.60	.59	.67	.42	.26	.55	—	.58
18. Meaning	.49	.61	.45	.60	.50	.26	.51	.46	*.75*	.62	.70	.56	.69	.51	.29	.60	.59	—

Note. Values below diagonal use raw ratings; values above diagonal use participant-mean centered ratings. Correlations between measures of the same variable at Time 1 and Time 2 are italicized.

at Time 1; and (c) a full model, including fixed effects of all Time 1 measures. Model comparison statistics are shown in Table 9.

For all measures, the autoregressive models provided a highly significant reduction in deviance compared with the null models, $\chi^2(1) =$ from 323 to 865, all $ps < .00001$. These models accounted for between 28.5% (continuity) and 59.3% (positive affect) of variance in the Time 2 measures, indicating moderate stability in the relative positions of identity elements within participants on these measures. We used the autoregressive models as a baseline for the evaluation of subsequent models.

For all measures, the saturated model showed a significant reduction in deviance, compared with the autoregressive model, $\Delta\chi^2(8) =$ from 28 to 213, all $ps < .001$. For each measure, we used residual variance from the autoregressive model to estimate values of partial R_W^2 for the saturated model. Partial R_W^2 was estimated at 19.9% for perceived centrality, 15.3% for positive affect, and 13.2% for identity enactment. Parameter estimates from these models are shown in Table 10. The saturated model also accounted for substantial proportions of residual variance in self-esteem (16.9%), efficacy (15.4%), belonging (12.4%), and meaning (10.1%) ratings and smaller amounts in continuity (4.8%) and distinctiveness (2.9%) ratings. Parameter estimates from these models are shown in Table 11. In the sections that follow, we discuss the most important findings from these analyses.

Antecedents and Consequences of Perceived Centrality

Controlling for perceived centrality at Time 1, we found that perceived centrality at Time 2 was predicted uniquely by Time 1 ratings of self-esteem, continuity, distinctiveness, efficacy, and meaning (β ranged from .07 to .11; all $ps < .01$). Thus, satisfaction ratings

for all motives except belonging showed direct paths to perceived centrality, providing evidence for the prospective influence of these motives on identity definition processes. In contrast, we found no significant paths from perceived centrality at Time 1 to any of the motive ratings at Time 2, although small effects on continuity and meaning ratings were approaching significance. This pattern of effects increases our confidence that the results observed in the preceding studies were at least predominantly due to processes shaping the structure of identity, as theorized, rather than processes affecting the meanings of identity elements.

Additionally, perceived centrality showed a reciprocal relationship with identity enactment. Consistent with theories proposing that identity is shaped by action as well as cognition (Marková, 1987; Reicher, 2000; Ryan & Deci, 2003; Schlenker, 2003), identity enactment at Time 1 contributed to predictions of perceived centrality at Time 2 ($\beta = .14$, $p < .0001$). Conversely, perceived centrality at Time 1 also contributed to predictions of identity enactment at Time 2 ($\beta = .09$, $p < .01$). According to studies of impression management, a common goal of self-presentation is to express and verify existing self-conceptions (Schlenker, 2003); similarly, self-determination theory (Deci & Ryan, 2000) proposes that people are motivated to behave in ways that they perceive as reflecting who they are.

Antecedents and Consequences of Identity Enactment

Controlling for identity enactment at Time 1, we found that identity enactment at Time 2 was predicted by Time 1 ratings of self-esteem, belonging, efficacy, and perceived centrality (β ranged from .09 to .11; all $ps < .01$). The first of these effects was consistent with the common finding in the self-presentation literature that people often seek to portray themselves in a positive

Table 9
Model Comparison Statistics for Each Dependent Variable

Statistics	Dependent variable (Time 2 rating)								
	Centrality	Affect	Enactment	Self-esteem	Continuity	Distinctiveness	Belonging	Efficacy	Meaning
					Null model				
Deviance	3,669	3,815	3,817	4,206	3,902	3,812	4,180	4,099	4,220
σ^2	1.73	2.00	2.03	2.89	2.16	1.89	2.82	2.65	2.94
					Autoregressive model				
Deviance	3,205	2,950	3,140	3,527	3,579	3,432	3,575	3,620	3,444
σ^2	1.06	.81	1.00	1.43	1.54	1.27	1.50	1.61	1.31
$\chi^2(1)$	464	865	678	678	323	380	605	479	775
p	<.00001	<.00001	<.00001	<.00001	<.00001	<.00001	<.00001	<.00001	<.00001
R_W^2 (%)	38.3	59.3	50.6	50.6	28.5	32.6	46.7	39.2	55.4
					Full model				
Deviance	2,991	2,791	3,003	3,350	3,531	3,404	3,447	3,460	3,342
σ^2	.85	.69	.87	1.19	1.47	1.24	1.32	1.36	1.18
$\chi^2(9)$	678	1,024	814	856	370	408	733	639	878
p	<.00001	<.00001	<.00001	<.00001	<.00001	<.00001	<.00001	<.00001	<.00001
$\Delta\chi^2(8)$	213	160	137	177	47	28	128	160	103
p	<.00001	<.00001	<.00001	<.00001	<.00001	<.001	<.00001	<.00001	<.00001
R_W^2 (%)	50.6	65.6	57.1	58.9	32.0	34.6	53.3	48.6	59.9
ΔR_W^2 (%)	12.3	6.2	6.5	8.3	3.4	1.9	6.6	9.3	4.5
Partial R_W^2 (%)	19.9	15.3	13.2	16.9	4.8	2.9	12.4	15.4	10.1

Note. Deviance is calculated as $-2 \times$ log likelihood; values of σ^2 are the Level 1 residual variance estimates; values of R_W^2 and ΔR_W^2 are proportions of total within-participants variance estimated by using the null model as a baseline; values of partial R_W^2 are proportions of residual within-participants variance estimated by using the autoregressive model as a baseline.

light (Schlenker, 2003). This effect appeared to be unidirectional: Identity enactment at Time 1 did not provide any prospective prediction of self-esteem ratings at Time 2. The remaining effects could be interpreted together as supporting the proposal of self-determination theory that people generally strive to satisfy needs for autonomy, competence, and relatedness in their actions (Deci & Ryan, 2000): Participants reported emphasizing in their every-day actions those identity elements that were most central to their self-concepts (autonomy) and that they associated with feelings of efficacy (competence) and belonging (relatedness).

We should note that these last three effects appeared to be bidirectional: Identity enactment at Time 1 also predicted ratings of perceived centrality, efficacy, and belonging at Time 2 (β ranged from .09 to .17; all ps < .01). Thus, enacting an identity

Table 10
Estimates of Fixed Parameters From Full Models Predicting Time 2 Outcome Ratings as a Function of All Time 1 Ratings

Predictor (Time 1)	Outcome rating (Time 2)														
	Centrality					Affect					Enactment				
	B	SE	β	$\Delta\chi^2$	p	B	SE	β	$\Delta\chi^2$	p	B	SE	β	$\Delta\chi^2$	p
Intercept	4.92	.08				5.10	.08				4.43	.08			
Outcome ratings															
Centrality	*0.36*	*.03*	*.35*	*129*	*<.00001*	−0.01	.03	−.01	0	.74	0.10	.03	.09	10	<.01
Affect	−0.02	.03	−.03	1	.44	*0.46*	*.03*	*.49*	*232*	*<.00001*	0.00	.03	.00	0	.99
Enactment	0.12	.03	.14	19	<.0001	0.03	.02	.03	1	.22	*0.46*	*.03*	*.48*	*238*	*<.00001*
Motive ratings															
Esteem	0.08	.03	.10	8	<.01	0.13	.03	.15	24	<.00001	0.09	.03	.10	9	<.01
Continuity	0.08	.02	.09	10	<.01	0.04	.02	.05	4	.05	−0.00	.03	.00	0	.86
Distinctiveness	0.06	.02	.07	7	<.01	−0.01	.02	−.01	0	.73	0.04	.02	.04	3	.10
Belonging	0.03	.02	.04	2	.22	0.02	.02	.03	1	.26	0.09	.02	.11	15	<.001
Efficacy	0.08	.02	.10	10	<.01	0.08	.02	.09	13	<.001	0.09	.02	.10	14	<.001
Meaning	0.08	.03	.11	7	<.01	0.11	.03	.13	19	<.0001	0.02	.03	.02	1	.47

Note. Autoregressive effects are italicized.

element apparently leads not only to the perception that it is central to self-definition (as discussed above) but also to its association with feelings of efficacy—perhaps because such feelings would grow with experience of acting in this way—and with feelings of belonging—perhaps through acceptance by others of the identity element being claimed. Antecedents and consequences of perceived centrality and identity enactment are summarized in Figure 2.

Antecedents and Consequences of Positive Affect

Although perceived centrality and enactment of identity elements showed a close reciprocal relationship, neither of these dimensions was a significant predictor or outcome of positive affect, despite relatively strong zero-order correlations ($r \sim .5$) both within and across time points. This supported a view of cognitive–behavioral and affective systems as largely separate domains of identity functioning, although correlated because of their shared motivational influences.

Relationships of motive ratings with positive affect were mostly bidirectional. Controlling for positive affect at Time 1, positive affect at Time 2 was predicted by Time 1 ratings of self-esteem, efficacy, and meaning (β ranged from .08 to .13; all $ps < .001$). Conversely, positive affect at Time 1 predicted self-esteem, efficacy, and meaning ratings at Time 2 (β ranged from .11 to .24; all $ps < .001$). This extends the findings of Study 3, showing that relationships of all three motives with positive affect were reciprocal in nature. We also found a similar relationship between positive affect and continuity, although only of marginal significance: Continuity contributed marginally to prospective predictions of positive affect ($\beta = .04, p = .05$), and positive affect marginally to continuity ($\beta = .07, p = .08$).

On the other hand, the belonging rating did not contribute uniquely to prospective predictions of positive affect ($\beta = .02, p = .26$), but we did find a marginal prospective effect of positive affect on the belonging rating ($\beta = .09, p = .03$). Thus, against expectations, the relationship observed in Study 3 between belonging and happiness ratings appears to have been due to the influence of positive affect on feelings of belonging, and not vice versa. This was also the case for distinctiveness, which had shown a negative suppression effect in Study 3: The distinctiveness rating made no contribution to prospective predictions of positive affect ($\beta = -.01, p = .73$), but positive affect did show a negative prospective effect on distinctiveness ($\beta = -.11, p < .01$). Because the zero-order correlation between Time 1 affect and Time 2 distinctiveness ratings was positive, this negative regression weight was also a suppression effect. Antecedents and consequences of positive affect are summarized in Figure 3.

Prospective Relationships Between Identity Motives

Prospective relationships between identity motives are shown in the lower portion of Table 11. All significant effects involved the self-esteem and/or meaning ratings, whereas we observed no significant direct relationships among the continuity, distinctiveness, belonging, and efficacy ratings.

Self-esteem ratings at Time 2 were predicted prospectively by Time 1 ratings of efficacy, belonging, and meaning (β ranged from .09 to .11; all $ps < .01$) and marginally by the distinctiveness rating ($\beta = .04, p = .05$). Thus, as expected, feelings of both efficacy and belonging appeared to be important antecedents of feelings of self-esteem. Self-esteem also contributed prospectively to predictions of distinctiveness ($\beta = .14, p < .001$) and efficacy ($\beta = .18, p < .00001$) and marginally to predictions of meaning ($\beta = .07, p = .05$). Hence, there seemed to be a reciprocal relationship between feelings of self-esteem and those of efficacy, meaning, and distinctiveness. The latter effect may also be interpreted as a manifestation of the false uniqueness bias observed in Western populations, whereby people often overestimate the distinctiveness of their desirable qualities (e.g., Campbell, 1986).

Time 2 meaning ratings were predicted prospectively by the Time 1 rating for continuity ($\beta = .07, p < .01$); moreover, both esteem and belonging ratings also made marginal contributions (respectively, $\beta = .07$ and .06; both $ps < .05$). The importance of continuity for establishing meaningfulness is emphasized within narrative approaches to identity (e.g., Gergen & Gergen, 1988; McAdams, 2001), and esteem-related themes of value and self-worth have been theorized as important dimensions of meaning by Baumeister (1991). However, we should note that all three relationships appeared to be reciprocal. Meaning ratings also contributed marginally to predictions of efficacy at Time 2 ($\beta = .09, p = .01$). This result contradicts Baumeister's portrayal of efficacy as an additional basis for feelings of meaningfulness, suggesting on the contrary that it is the perception of some aspects of one's identity as especially meaningful that leads them to be associated with a greater sense of efficacy.

Testing Indirect Paths

Our final analyses of these data tested for indirect effects among selected variables. We were especially interested in examining possible explanations for the relatively poor performance of the belonging and efficacy ratings in direct predictions of perceived centrality. One possibility was that effects of these motives on perceived centrality were mediated by their relationships with self-esteem (after Gecas & Schwalbe, 1983; Leary & Baumeister, 2000). It was also possible that these motives contributed indirectly to identity construction through their influence on the behavioral domain of identity enactment (for a similar proposal, see Ryan & Deci, 2003).

Assuming that the Time 1 → Time 2 paths observed here would replicate over subsequent time intervals, evidence for both indirect effects was already provided by the significance at $p < .01$ of direct paths from belonging and efficacy to both self-esteem and identity enactment and of direct paths from both self-esteem and identity enactment to perceived centrality (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). However, a more conservative approach to testing mediation involves the evaluation of indirect effect estimates such as the Sobel statistic. Monte Carlo research by Krull and MacKinnon (1999) has confirmed that this method is appropriate for use in multilevel research with sample

Table 11
Estimates of Fixed Parameters From Full Models Predicting Time 2 Motive Ratings as a Function of All Time 1 Ratings

Predictor (Time 1)	Motive rating (Time 2)														
	Self-esteem					Continuity					Distinctiveness				
	B	SE	β	$\Delta\chi^2$	p	B	SE	β	$\Delta\chi^2$	p	B	SE	β	$\Delta\chi^2$	p
Intercept	4.63	.10				4.98	.09				4.01	.11			
Outcome ratings															
Centrality	−0.05	.04	−.04	2	.16	0.08	.04	.07	4	.06	0.02	.04	.01	0	.69
Affect	0.24	.04	.22	43	<.00001	0.07	.04	.07	3	.08	−0.11	.04	−.12	9	<.01
Enactment	0.04	.03	.04	2	.19	0.06	.04	.06	3	.09	0.04	.03	.04	1	.25
Motive ratings															
Esteem	*0.37*	*.03*	*.36*	*107*	*<.00001*	−0.04	.04	−.05	1	.26	0.12	.04	.14	11	<.001
Continuity	0.04	.03	.04	2	.17	*0.39*	*.03*	*.40*	*134*	*<.00001*	0.05	.03	.05	3	.11
Distinctiveness	0.05	.03	.04	4	.05	0.00	.03	.00	0	.94	*0.50*	*.03*	*.52*	*281*	*<.00001*
Belonging	0.09	.03	.09	11	<.01	0.02	.03	.02	0	.57	0.02	.03	.02	0	.56
Efficacy	0.11	.03	.11	16	<.0001	0.03	.03	.03	1	.38	−0.05	.03	−.06	3	.09
Meaning	0.09	.03	.09	8	<.01	0.07	.04	.08	3	.07	0.02	.03	.03	1	.46

Note. Autoregressive effects are italicized.

size characteristics similar to those in the current study.[15] Hence, we conducted Sobel tests for the four indirect paths proposed above. Both belonging and efficacy ratings showed marginally significant indirect paths to perceived centrality through self-esteem (Sobel test: $z = 2.10$ and 2.27; $p = .04$ and .02, respectively) and significant indirect paths to perceived centrality through identity enactment (Sobel test: $z = 2.89$ and 2.83, respectively; both $ps < .01$). Although indirect effects through self-esteem did not reach the .01 significance threshold we have used elsewhere in these studies, MacKinnon et al. have found that the Sobel approach is often overstringent, resulting in increased risk of Type II error. Hence, considering that all Sobel tests met the conventional .05 level of significance, both routes from feelings of belonging and efficacy to perceived centrality were judged to be supported.

We were also interested in examining indirect paths from continuity, distinctiveness, and meaning to identity enactment. Although these ratings made no direct contribution to prospective predictions of identity enactment, we were interested in examining whether their direct influences on perceived centrality were sufficient to carry through into identity enactment—which would show the relevance of these motives to the domain of social action—or whether the influence of these motives would be restricted to the cognitive domain of perceived centrality. As above, the joint significance of these motive ratings as prospective predictors of perceived centrality and of perceived centrality as a prospective predictor of identity enactment already constitutes evidence for mediation (MacKinnon et al., 2002). Further confidence is provided by Sobel tests, indicating that indirect contributions of all three motive ratings through perceived centrality to identity enactment were significant at the .05 level (continuity: $z = 2.27$, $p = .02$; distinctiveness: $z = 2.04$, $p = .04$; meaning: $z = 2.05$, $p = .04$).

General Discussion

Influence of Multiple Motives on Identity Construction

Support for the Self-Esteem Motive

Consistent with previous research, these studies provide converging evidence for the pervasive influence of self-esteem con-

cerns on all dimensions of identity we examined. The more participants rated an element of identity as providing feelings of self-esteem, the more they considered it as central to their self-definitions, the more they felt happy about it, and the more they reported emphasizing it in their everyday actions. The prospective influence of self-esteem ratings on all three dimensions was confirmed over a 2-month period. These findings extend previous research into self-esteem and self-enhancement processes: Whereas most previous studies have focused on individual differences in self-esteem or on the evaluation of single aspects of identity, the current studies show the influence of the self-esteem motive on the structuring of multiple identity elements within the individual.

Identity Motives Beyond Self-Esteem

However, these studies also show that self-esteem concerns are not the only motivational influences on identity construction. Controlling for effects of the self-esteem motive, we found that motives for meaning, continuity, distinctiveness, efficacy, and belonging each showed a variety of direct and indirect effects on cognitive, affective, and behavioral dimensions of identity.

Participants rated as more central, and were happier with, elements of identity that provided a greater sense of meaning in their lives. These findings support the influence of a motive for meaning on processes of identity construction (see Baumeister, 1991; Hogg, 2000; Tajfel, 1969), beyond the influence of concerns for self-esteem. Indeed, effects of the meaning motive actually equaled or outshone those of the self-esteem motive in all predictions of perceived centrality.

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[15] Krull and MacKinnon (1999) compared three versions of the Sobel test, each of which uses a different way of calculating the standard error of the mediated effect, but no version is clearly preferred for the data structure of the current study. We report values computed by using first-order Taylor series expansion. Computations using second-order Taylor series expansion (also known as Goodman I) or the estimate of unbiased variance (also known as Goodman II) yielded substantively identical findings.

Belonging					Efficacy					Meaning				
B	SE	β	Δχ²	p	B	SE	β	Δχ²	p	B	SE	β	Δχ²	p
4.44	.10				4.25	.09				4.70	.10			
0.02	.04	.01	0	.64	0.00	.04	.00	0	.98	0.07	.04	.05	4	.05
0.09	.04	.08	5	.03	0.11	.04	.10	8	<.01	0.18	.04	.15	22	<.00001
0.17	.03	.15	24	<.00001	0.09	.04	.08	7	<.01	−0.03	.03	−.02	1	.44
0.00	.04	.00	0	.94	0.18	.04	.18	23	<.00001	0.07	.03	.07	4	.05
0.03	.03	.02	1	.39	0.02	.03	.02	0	.52	0.08	.03	.07	8	<.01
−0.01	.03	−.01	0	.60	0.00	.03	.00	0	.91	0.01	.03	.00	0	.85
0.46	*.03*	*.46*	*207*	*<.00001*	0.00	.03	.00	0	.88	0.06	.03	.06	5	.03
−0.01	.03	−.01	0	.82	*0.38*	*.03*	*.37*	*139*	*<.00001*	0.03	.03	.03	1	.35
0.16	.03	.16	22	<.00001	0.09	.04	.09	7	.01	*0.50*	*.03*	*.50*	*207*	*<.00001*

Similarly, participants rated as more central, and were happier with, elements of identity that provided a greater sense of continuity between past, present, and future within their lives. Thus, the influence of a motive for continuity on identity processes was also well supported by these studies (see Breakwell, 1986; Chandler et al., 2003; Sani, in press; Swann et al., 1987).

Additionally, participants rated as more central those elements of identity that provided a greater sense of distinctiveness. Although the distinctiveness rating did not show affective associations comparable to the motives above, it did contribute signifi-

cantly and uniquely to contemporaneous and prospective predictions of perceived centrality in all studies. Thus, we can conclude with confidence that distinctiveness concerns are involved in guiding identity construction (Vignoles et al., 2000). Admittedly, one interpretation would be to view this guidance as a relatively cold, purely cognitive process, not necessarily motivational in character (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987). Nevertheless, studies elsewhere have shown unambiguously motivational effects in this domain—most notably, research participants have been shown to engage in a wide variety of strategies to defend or reinstate their distinctiveness when it is threatened or undermined (Brewer & Pickett, 1999; Fromkin, 1970; Pickett, Silver, & Brewer, 2002; Snyder & Fromkin, 1980). It has been argued elsewhere that distinctiveness is an extremely complex construct—it may be constructed in many different ways, which may have positive or negative affective implications (Vignoles et al., 2000; Vignoles, Chryssochoou, & Breakwell, 2002b). Consistent with this, the current findings support a view of distinctiveness as affectively ambivalent rather than neutral.

Participants reported emphasizing more in their everyday actions, and feeling happier about, identity elements that provided stronger feelings of efficacy. Although efficacy ratings were very closely related to those of self-esteem, these effects were found in prospective predictions and after controlling for self-esteem. Efficacy ratings did not contribute consistently to predictions of perceived centrality across studies, but a prospective effect was observed in Study 4. Moreover, efficacy appeared to contribute indirectly to the construction of perceived centrality, both through its contribution to self-esteem and through identity enactment. Thus, the efficacy motive appears by no means redundant as an influence on processes of identity construction (Breakwell, 1993; Ryan & Deci, 2003).

Finally, participants reported emphasizing more in their everyday actions, and feeling happier about, identity elements that provided a stronger sense of belonging. Only the former of these findings was supported by prospective predictions: Against expectations, feelings of belonging were seemingly influenced by pos-
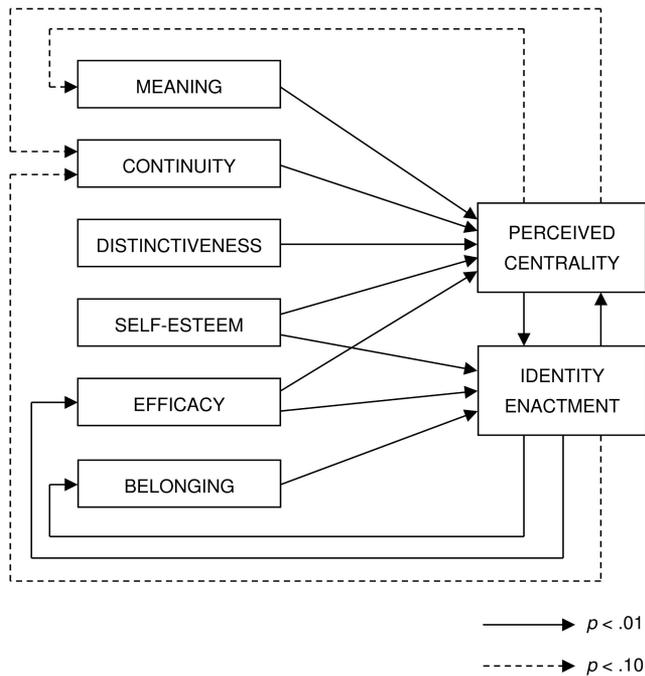

Figure 2. Significant and marginally significant antecedents and consequences of perceived centrality and identity enactment.
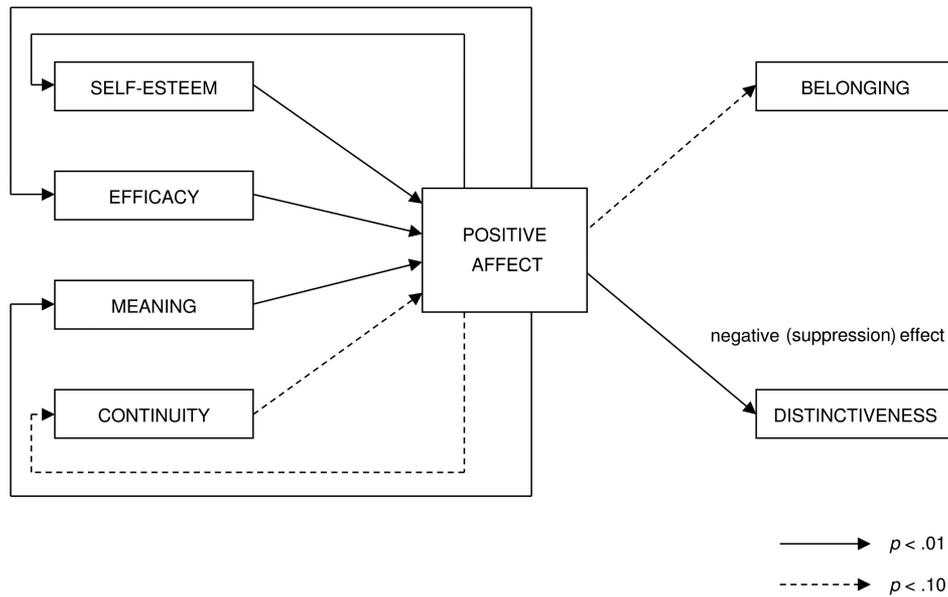
Figure 3. Significant and marginally significant antecedents and consequences of identity-related affect.

itive affect, rather than vice versa. Belonging was a relatively weak direct predictor of perceived centrality but achieved at least marginal significance ($p < .05$) in Studies 1 to 3, only failing to reach significance in the prospective predictions in Study 4. However, like efficacy, the belonging motive appeared to influence the construction of perceived centrality indirectly, through its contribution to the construction of self-esteem and its direct influence on identity enactment (see Leary & Baumeister, 2000; Ryan & Deci, 2003).

Cognitive, Affective, and Behavioral Domains of Identity

Cognitive and behavioral dimensions of subjective identity structure (perceived centrality and identity enactment) showed a reciprocal influence, consistent with a view of identity definition and enactment as mutually reinforcing processes (Reicher, 2000). On the other hand, relationships of these dimensions with positive affect seemed to be due to shared motivational antecedents rather than direct influence. In Study 3, over 85% of the covariance between perceived centrality and happiness ratings was accounted for by the six motive ratings. In Study 4, we found no direct paths from positive affect to either perceived centrality or identity enactment, or vice versa. These results are consistent with a view of cognitive–behavioral and affective systems as largely separate domains of identity functioning (see Swann et al., 1987).

Extending findings that cognitive outcomes are influenced more by self-verification processes (maximizing continuity) and that affective outcomes are influenced more by self-enhancement (maximizing self-esteem: Swann et al., 1987), we found in Study 3 that continuity, distinctiveness, and meaning ratings were more strongly related to perceived centrality, whereas self-esteem, efficacy, and belonging ratings were more strongly related to happiness. Similarly, in Study 4, we found a relatively strong prospective influence of self-esteem on positive affect and relatively strong effects of continuity and distinctiveness on perceived cen-

trality. Nevertheless, one should not overstate the separation of "cognitive" and "affective" identity motives: It is important to remember that self-esteem, continuity, and meaning ratings were predictors of both perceived centrality and positive affect in both studies.

A clearer separation was apparent between the motivational antecedents of perceived centrality and identity enactment. Both were predicted by the self-esteem ratings, but remaining predictors differed markedly. Participants rated as especially central those identity elements that they associated most with feelings of continuity, distinctiveness, and meaning (all studies), as well as those that were most salient in their everyday actions (Study 4). This set of predictors seems consistent with the demands of cognitive processes of identity definition. Several theorists have argued on philosophical grounds that one must experience some form of both continuity and distinctiveness in order to have any meaningful sense of identity (e.g., Chandler et al., 2003; Codol, 1981; Vignoles et al., 2000). From a humanistic perspective, it seems reasonable to propose that identity definition should be guided not only by these logical criteria for meaningfulness but also by the search for subjective meaningfulness (Baumeister, 1991). Of course, identity cannot be defined in a vacuum: Inevitably, identity definition will be influenced by a person's relationship with his or her physical and social environment, through processes of self-perception and reflected appraisal (Marková, 1987; Reicher, 2000; Ryan & Deci, 2003; Schlenker, 2003).

On the other hand, participants reported enacting in their everyday lives especially those identity elements that fulfilled efficacy and belonging needs as well as those that they perceived as most central to their identities. Notably, in comparison with the other motives studied here, both efficacy and belonging are more clearly relevant to a person's relationship with the external world, as opposed to his or her internal cognitions: Efficacy refers to a person's capacity to act on the environment, and belonging refers

to a person having a place within the environment. Hence, it makes theoretical sense that these motives are of greater direct relevance to the behavioral domain of identity enactment. Furthermore, this set of predictors is consistent with the view, advanced by self-determination theory, of competence, relatedness, and autonomy as core motives for behavior (Deci & Ryan, 2000).

Generality Across Levels of Self-Representation

Notably, our predictions of perceived centrality generalized across individual, relational, and group levels of self-representation (Study 2). Allowing for different models predicting the perceived centrality of individual-, relational-, and group-level identity elements provided no improvement in fit, compared with a single model in which the weights of the motive ratings were constrained to be identical across all three levels of self-representation. This strongly supported our initial project of synthesizing ideas from diverse areas of social psychology to form an integrated approach to identity motivation, in contrast with mainstream thinking over the last few decades, which has tended to emphasize separate theorizing about each level of self-representation. However, this is not to say that the distinction between individual, relational, and group levels of identity should be abandoned. Theoretical distinctions between personal and social identity, or between individual, relational, and collective selves, have been very fruitful in particular areas of theory and research (Sedikides & Brewer, 2001; Tajfel & Turner, 1979). Indeed, data from Study 2 provide evidence that this distinction was meaningful to participants themselves: Participants successfully classified over 96% of their identity elements into individual, relational, and group levels and appeared to discriminate between identity elements on each level in their ratings (see footnote 11). Nevertheless, we reiterate that our main findings showed no detectable difference across individual, relational, and group levels of identity.

Toward Theoretical Integration

In Table 1, we summarized the key motivational claims of a number of leading theories in the self and identity literature. Each of these theories has received some support in these studies. However, no existing theory can account for all of these findings together. Hence, our results underline the need to integrate the currently fragmented literature on identity motives and provide the grounding for a common theoretical framework within which previous theories can be located. Such a framework can be built around the following theoretical propositions, derived from the current results:

1. People are generally motivated to maintain and/or enhance feelings of self-esteem, continuity, distinctiveness, belonging, efficacy, and meaning within their identities.

2. These motives influence in various ways the interplay of cognitive and behavioral processes by which people construct their identities from multiple identity elements:

   a. The self-esteem motive directly influences both the definition and enactment of identity.

   b. Motives for continuity, distinctiveness, and meaning contribute directly to identity definition and indirectly—through identity definition—to identity enactment.

   c. Motives for belonging and efficacy contribute directly to identity enactment and indirectly—through identity enactment—to identity definition.

3. These motives are also relevant to affective processes:

   a. People are happier about identity elements that satisfy identity motives for self-esteem, efficacy, continuity, and meaning.

   b. Motives for self-esteem and efficacy have an especially strong impact on people's happiness with their identity elements.

4. Each of these motives is relevant to identity elements on individual, relational, and group levels.

These four propositions summarize parsimoniously the key findings of the current studies and many of the key motivational claims of previous theories. We do not wish to imply that they constitute in themselves a complete, integrated theory of identity motivation—nevertheless, they provide a foundation on which such a theory may be built. Inevitably, given the novelty of this research, these propositions should be tested further. Moreover, the proposed integration raises a number of important questions for further theoretical and empirical attention, some of which we discuss below.

Further Issues

Relationships Between Identity Motives

Clearly a full-fledged model of identity motivation must provide some consideration of the relationships between the motives proposed (Breakwell, 1987; Sedikides & Strube, 1995). To what extent is the operation of each motive dependent on others? Are some motives inherently subordinated to others? Does satisfaction of some motives intrinsically support or conflict with the satisfaction of other motives? Although the studies reported here cannot provide a definitive set of answers to these questions, some partial conclusions can be drawn and some hypotheses can be proposed.

In these studies, every motive rating made a substantial unique contribution to predictions of perceived centrality, affect, and/or identity enactment, indicating that none of these motives is wholly redundant or subordinate to the others. Moreover, unique contributions of both meaning and continuity to perceived centrality were consistently as strong as or stronger than those of self-esteem. This contrasts with proposals in the self-evaluation literature that a wide range of processes are largely serving self-enhancement needs (Sedikides & Strube, 1997). However, our studies differ in two important ways from the self-evaluation literature. Not only have we included a wider range of identity motives, but, perhaps of greater consequence, our studies focus on different outcomes. In particular, our measure of perceived centrality focuses on self-definition rather than self-evaluation: In the latter context, it is

arguably unsurprising that self-esteem concerns should have been dominant.

Nevertheless, the self-esteem motive did appear largely to subsume the contributions of belonging and efficacy ratings to predictions of perceived centrality. Results of Study 4 suggested that this might be due to self-esteem playing a mediating role: The more an identity element was associated with feelings of belonging or efficacy, the more it provided a sense of self-esteem and hence the more it was perceived as central to identity. Leary and Baumeister (2000) have described the self-esteem system as a "sociometer"—a mechanism that has evolved to monitor satisfaction of the fundamental human need for belonging. The current results are consistent with sociometer theory, but they suggest that the self-esteem system also monitors satisfaction of both efficacy and meaning needs (cf. Gecas & Schwalbe, 1983; Greenberg, Solomon, & Pyszczynski, 1997).

On a different note, many theorists propose or assume that motives for distinctiveness and belonging are fundamentally opposed (e.g., Brewer, 1991; Snyder & Fromkin, 1980). Brewer and Gardner (1996) have noted that many forms of distinctiveness and belonging are semantic opposites: difference with similarity, separation with intimacy, and exclusiveness with inclusiveness of in-group membership. Yet, we did not find a negative relationship between participants' ratings of their identity elements for satisfaction of these two motives. On the contrary, zero-order correlations ranged from .03 to .36 across samples, and we found no direct paths between these motive ratings in Study 4. We have argued elsewhere that the degree of congruence or opposition between motives for distinctiveness and belonging is likely to depend on how both distinctiveness and belonging are constructed (Vignoles et al., 2000; for related arguments, see Green & Werner, 1996; Hornsey & Jetten, 2004).

In general, we propose that relationships between identity motives will vary according to the different ways in which each motive may be satisfied by different individuals and in different cultures and contexts (Breakwell, 1987; Vignoles et al., 2000, 2002a). As an example, for an individual with low self-esteem, changing identity to increase self-esteem may pose problems for the maintenance of continuity, but this will be the case only to the extent that continuity is defined as an absence of change rather than a narrative of personal growth. If identity construction is guided simultaneously by multiple identity motives, then—over time and in an absence of external constraints—a psychologically healthy individual will likely find nonconflicting ways of satisfying each motive. Hence, within the current paradigm, it seems reasonable to expect that the generally positive relationships we found between motive ratings will be the norm, indicating congruence between identity motives, whereas negative relationships, indicating conflict between identity motives, will be the exception.

Issues of Generality and Variability

In this work, we have defined identity in terms of subjective psychological experience, rather than objective "essence," and our studies have explored ways in which the individual constructs his or her own identity structure. Evidently, this construction does not happen in a social and cultural vacuum (Israel & Tajfel, 1972). Hence, it is important to consider whether there are potential boundary conditions to the effects we have described. Study 1

demonstrated that our models generalized over six decades of the life span among a sample of Christians. In Study 2, we found little meaningful variation between male and female participants at two different life stages (leaving school and becoming a parent) in two different European countries. Nevertheless, most participants were of moderately high socioeconomic status, and a majority resided within individualistic cultural contexts;[16] hence, arguably, results from more diverse populations may have shown greater differences.

Although some have proposed that identity motives are culturally specific (Breakwell, 1987; Triandis, 1995), each of the motives studied here has been claimed to be in some sense adaptive and/or universal (e.g., Baumeister & Leary, 1995; Chandler et al., 2003; Sedikides & Skowronski, 2000; Vignoles et al., 2000). Even the distinctiveness principle—often portrayed as a reification of Western individualistic values—is seen on closer consideration to be a necessary precondition for possessing a sense of identity (Vignoles et al., 2000). However, there is likely to be considerable cultural variation in the different ways in which each motive can be satisfied: For example, a sense of continuity may be maintained by denying change or by constructing a narrative account of one's history (Chandler et al., 2003); similarly, a sense of distinctiveness may be derived from feelings of difference and separateness or from one's unique position in a network of social relationships (Vignoles et al., 2002b).

Such variation will have important implications not only for the relationships between motives (discussed earlier) but also for the types of event that will satisfy or frustrate each motive, and hence for the cognitive and behavioral strategies that people will adopt to maintain, enhance, or defend their identities. An important task for future research will be to explore implications of the different ways in which people can construct feelings of self-esteem, continuity, distinctiveness, belonging, efficacy, and meaning, considering both individual and cultural differences.[17]

Implications for the Study of Identity-Related Outcomes

An important benefit of developing an integrated model of identity motivation is the potential to improve understanding of the causes of identity-related outcomes. Many identity theories were developed originally to address particular outcomes, such as intergroup relations or consumer behavior (e.g., Snyder & Fromkin, 1980; Tajfel & Turner, 1979), and not to understand identity per se. Thus, theorizing about identity-related outcomes has generally happened without reference to any coherent or unified theoretical framework. However, the four propositions outlined above provide a grounding for the development and testing of new hypotheses about identity-related outcomes. The extent of the possibilities is considerable—we outline here some illustrative suggestions only.

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[16] A minority of expecting first-time parents in Study 1 were from the south of Italy, which has been identified as a collectivist culture (Semin & Rubini, 1990).

[17] Although not a focus of the current article, we have also begun to explore the correlates of individual differences in the strengths of each motive in the six-motive model. Initial findings suggest that such differences may be meaningful predictors of appearance-related negative health behaviors (Vignoles & Deas, 2002) and intergroup discrimination (Vignoles & Moncaster, in press).

Many theories propose that people tend to behave in accordance with their self-conceptions, whether as individuals (e.g., Deci & Ryan, 2000) or as group members (e.g., Turner et al., 1987). For example, healthy eating behavior has been shown to be more prevalent among those identifying themselves as "health conscious consumers" (Sparks & Guthrie, 1998). But what motivates people to adopt such an identity, and how might they be persuaded to do so? Our results suggest that people are motivated to adopt an identity to the extent that it can provide feelings of self-esteem, continuity, distinctiveness, belonging, efficacy, and meaning. Hence, interventions to encourage people to adopt particular identities might focus on the multiple motive satisfactions that such identities can offer. Attempts to enhance cognitive identification might focus especially on potential benefits for self-esteem, continuity, distinctiveness, and meaning, whereas attempts to increase enactment of particular identities might focus especially on potential benefits for self-esteem, belonging, and efficacy.

Other theories focus on cognitive and behavioral responses to identity threat (e.g., Breakwell, 1988; Steele, 1988). Research has shown that a wide variety of cognitions and behaviors can occur in response to threats to identity (e.g., Baumeister, 1990; Bushman & Baumeister, 1998; Dittmar, 2004; Fein & Spencer, 1997; Sherman, Nelson, & Steele, 2000). However, understandings of what constitutes "threat" tend to be based on researchers' intuition rather than theory, nor can threat be defined in terms of the individual's subjective experience, as he or she may use denial as a coping strategy. On the basis of the current studies, we can propose—extending identity process theory (Breakwell, 1988)—that an event or a piece of information will threaten identity to the extent that it undermines feelings of self-esteem, efficacy, continuity, distinctiveness, belonging, or meaning (see also Manzi et al., 2005). Hence, we propose that the potential for a given situation or message to threaten identity can be avoided to the extent that it does not undermine satisfaction of these motives or that it provides an alternative means of restoring these satisfactions (see Steele, 1988; Tesser, 2000).

Is This a Complete List of Identity Motives?

Undoubtedly, future researchers will seek to add to the list of identity motives examined here, and some may feel that we have omitted constructs already present in the literature. It would be unwise, and unwarranted by our data, to assume that the six motives examined here constitute an exhaustive list of motivational influences on identity construction among human beings in all cultures and contexts—or even among our current participants. Moreover, beyond the concept of identity motives as defined here, people may claim or deny identities for strategic reasons—perhaps to gain power, influence, or approval—rather than for the motivational value of the identity in itself (Reicher, 1995; Spears, Jetten, & Scheepers, 2002). Not every motive, need, or goal is necessarily an identity motive. Hence, to avoid a situation of anything goes, we suggest as a minimum requirement that any further identity motive proposed should be supported by a strong theoretical and empirical case for its status as an identity motive rather than another sort of need, for its applicability and adaptive function across cultures, and for its conceptual and functional distinctness from the motives examined here.

Conclusion

The purpose of this work was to contribute to the development of an integrated theory of identity motivation, relevant to individual, relational, and group levels of self-representation. Using multilevel modeling of within-participant variance between identity elements, our studies have shown that at least five motives beyond self-esteem are relevant to the construction of subjective identity structures. We propose that people are generally motivated to maintain and/or enhance feelings of self-esteem, continuity, distinctiveness, belonging, efficacy, and meaning within their identities. These motives are equally applicable to individual, relational, and group levels of self-representation. Motives for self-esteem, continuity, distinctiveness, and meaning are most directly relevant to processes of identity definition, and motives for self-esteem, efficacy, and belonging are most directly relevant to processes of identity enactment. Motives for self-esteem and efficacy are especially tied to positive affect. We have identified areas for future development—especially to focus on the different ways in which each of these motives may be satisfied—and we have proposed implications for identity-related outcomes.

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Appendix

Questions Used in the Identity Ratings

Construct	Question	Studies
Perceived centrality (2 questions)	How much do you see each of the answers you have written as central or marginal to your identity?[a]	1, 2, 3, 4
	How important is each of your answers in defining who you are?	1, 2, 3, 4
Self-esteem	How much does each of your answers give you a sense of self-esteem?	1, 2, 3, 4
Efficacy	How much does each of your answers make you feel effective or competent in doing the things you do?	1, 2, 3, 4
Continuity	How much does each of your answers give you a sense of continuity—between past, present, and future—in your life?	1, 2, 3, 4
Distinctiveness	How much do you feel that each of your answers distinguishes you from other people?	1, 2, 3, 4
Belonging	How much does each of your answers make you feel close to other people?	1, 2, 3, 4
Meaning	How much do you feel that each of your answers gives a "meaning" to your life?	1, 2, 3, 4
Positive affect (2 questions)	How happy or unhappy do you feel about being each of these things?[b]	3, 4
	How fulfilled do you feel by being each of these things?[c]	4
Identity enactment (2 questions)	To what extent do you feel that being each of these things influences your actions toward other people in everyday life?[d]	4
	To what extent do you try to show people that you are each of these things in your everyday life?[e]	4

Note. All questions were rated on a 7-point scale. Except where indicated, scale anchors were 1 = *not at all;* 4 = *moderately;* 7 = *extremely* (Studies 1 and 4) or *very much* (Studies 2 and 3).
[a] Scale anchors were 1 = *extremely marginal* (Studies 1 and 4) or *very much marginal* (Studies 2 and 3); 4 = *intermediate;* 7 = *extremely central* (Studies 1 and 4) or *very much central* (Studies 2 and 3).
[b] Scale anchors were 1 = *very unhappy* (Study 3) or *extremely unhappy* (Study 4); 4 = *neutral;* 7 = *very happy* (Study 3) or *extremely happy* (Study 4).
[c] Scale anchors were 1 = *not at all fulfilled;* 4 = *moderately fulfilled;* 7 = *extremely fulfilled.*
[d] Scale anchors were 1 = *no influence at all;* 4 = *moderate influence;* 7 = *extremely strong influence.*
[e] Scale anchors were 1 = *don't try to show this at all;* 4 = *try to some extent;* 7 = *very definitely try to show this.*