

Social Identity Complexity

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In this article, we introduce the concept of social identity complexity—a new theoretical construct that refers to an individual's subjective representation of the interrelationships among his or her multiple group identities. Social identity complexity reflects the degree of overlap perceived to exist between groups of which a person is simultaneously a member. When the overlap of multiple ingroups is perceived to be high, the individual maintains a relatively simplified identity structure whereby memberships in different groups converge to form a single ingroup identification. When a person acknowledges, and accepts, that memberships in multiple ingroups are not fully convergent or overlapping, the associated identity structure is both more inclusive and more complex. In this article, we define the concept of social identity complexity and discuss its possible antecedents and consequences. Results from initial studies support the prediction that social identity complexity is affected by stress and is related to personal value priorities and to tolerance of outgroup members.

Recently researchers of group processes have expressed increasing interest in the fact that most individuals are simultaneously members of multiple social groups. Although there has been some research on the effects of crosscutting social categories on ingroup bias (see Migdal, Hewstone, & Mullen, 1998; Urban & Miller, 1998), the majority of research on social identity and intergroup relations has been conducted in the context of a single ingroup–outgroup categorization. Most researchers who study social identification agree in principle that people have multiple group identities (e.g., Stryker & Statham, 1985; Tajfel, 1978; see Deaux, 1996, for a review), but there has been relatively little research on the nature of the relationships among a particular person's numerous ingroup identities or on the effects of holding multiple social identities on intergroup attitudes in general.

The effects of multiple categorization on perception of other persons has been investigated to some extent in both the social cognition literature (e.g.,

Stangor, Lynch, Duan, & Glass, 1992) and in the literature on ingroup bias in evaluations of group members (for reviews, see Crisp & Hewstone, 1999; Urban & Miller, 1998). In both of these contexts it has been found that perceivers sometimes evaluate others on the basis of one dominant categorization and ignore or even inhibit alternative categorizations (e.g., Macrae, Bodenhausen, & Milne, 1995; Rothbart & John, 1985), sometimes evaluate others on the basis of an additive combination of the different category memberships (e.g., Brown & Turner, 1979; Hewstone, Islam, & Judd, 1993), and sometimes create a compound category with emergent properties that are not predicted from the contributing categories considered separately (e.g., Brewer, 1988; Kunda, Miller, & Claire, 1990). One thing that has not previously been taken into account in trying to explain these variations in perceptions of others is the way that the perceiver represents his or her own multiple category identities. For instance, how a person who is both White and Christian responds to another individual who is Black and Christian may well depend on how the perceiver defines his or her racial and religious identities as ingroups. Understanding the structure of multiple social identities is important because representations of one's ingroups have effects not only on the self-concept but also on the nature of relationships between self and others.

This article provides an initial investigation of the concept of *social identity complexity*—a new theoretical construct that refers to the nature of the subjective

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representation of multiple ingroup identities. We begin by describing alternative models for how individuals may incorporate multiple group memberships in their overall social identity and in their conceptualization of ingroups and outgroups. We then introduce the concept of social identity complexity and array these different modes of identity representation on a continuum from simple to complex. Finally, we outline a theory of antecedents and consequences of social identity complexity and present some preliminary findings on the validity of this theoretical framework.

Multiple Crosscutting Group Memberships and Social Identity Complexity

Individuals belong to multiple social groups and to groups of different types. A recent article by Lickel et al. (2000) provided a useful taxonomy of social groups that is helpful in distinguishing among different forms of social identity. Their analysis identified four general types of groups—intimacy groups, task groups, social categories, and loose associations—that vary along a number of dimensions. Among these, intimate groups and small task groups are characterized by interpersonal connections and face-to-face interactions among group members. As such, these are likely to be groups that are based on common bonds or personal ties among all of the group members (Prentice, Miller, & Lightdale, 1994). By contrast, large task groups (organizations) and social categories are more likely to be based on symbolic attachment to the group as a whole rather than on the personal ties that exist among specific group members—what Prentice et al. referred to as “common-identity” groups. Shared membership in such large, symbolic groups engages collective identities that are depersonalized (Brewer & Gardner, 1996). In the words of self-categorization theory (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), social identification is a process of depersonalization “whereby people come to perceive themselves more as the interchangeable exemplars of a social category than as unique personalities” (Turner et al., 1987, p. 50). Through such collective identities, individuals become connected to others by virtue of their common attachment to the group rather than their personal relationships. Social identity theory applies primarily to these large, collective ingroup identities, and it is this type of social identity that our theory of social identity complexity is intended to represent.

Multiple Ingroup Memberships: Objective Versus Subjective Representations

The actual degree of overlap between social categories of which a person is simultaneously a member may

vary considerably. Some groups may be completely embedded in others (e.g., all Catholics are Christians), some may be completely orthogonal (e.g., Muslims and women) and some may overlap only slightly (e.g., corporate executives and women). When there is extensive overlap between ingroups defined by different dimensions of categorization, identification is relatively simple—the individuals who constitute the ingroup versus outgroups are the same for any categorization. If almost all Mormons live in Utah and almost all residents of Utah are Mormons, for instance, then the ingroup category based on religion comprises the same individuals as the ingroup based on state residence. In this hypothetical situation, for a resident of Utah all other residents are seen as ingroup members whether religion or state of residence is the basis of ingroup–outgroup categorization.

When ingroups defined by different dimensions of categorization overlap only partially, however, the implications for social identification become more complex. In this case some of those who are fellow ingroup members on one dimension are simultaneously outgroup members on the other. Consider the case of a woman who is a top manager: When the social context emphasizes the professional identity (e.g., a management conference), she is likely to perceive a male colleague as an ingroup member. Nonetheless, she may be aware that in different circumstances (circumstances that emphasize her identity as a woman) that same colleague is an outgroup member. It is these situations of crosscutting group memberships—where the constitution and meaning of different ingroups do not completely converge—that are of interest to us here. How do individuals construct their social identities in relation to multiple, nonconvergent ingroup memberships?

The actual complexity of multiple, partially overlapping group memberships may or may not be reflected in the individual’s subjective representation of his or her multiple identities. For instance, a woman who is both White and Christian may think of her religious ingroup as composed primarily of White people, even though objectively there are many non-White Christians. Conversely, she may think of her racial ingroup as largely Christian, despite the fact that there are many Whites who embrace other religions. By reducing the subjective inclusiveness of both ingroups to their overlapping memberships, the individual maintains a relatively simplified identity structure. When an individual acknowledges, and accepts, the nonoverlapping memberships of her multiple ingroups, her subjective identity structure is both more inclusive and more complex.

When group identities do not converge, there are different ways in which the individual may structure his or her perception of the ingroups to reconcile the potentially competing implications for defining the social self. Here we specify four alternative forms of

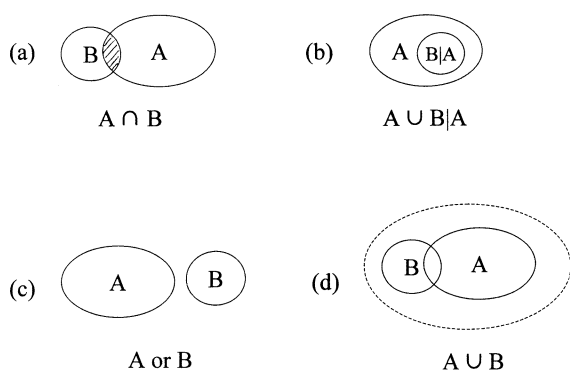


Figure 1. Alternative structures of multiple ingroup representations.

identity structure that reflect different ways in which the relationships among multiple ingroups can be subjectively represented. The four structures are represented schematically in Figure 1 for the case of two social category identities (A and B).¹ Each model of ingroup representation has implications for the inclusion or exclusion of others as members of the subjective ingroup. This provides a link between representations of multiple ingroups and different patterns of crossed categorization that have been identified in the intergroup relations literature (Hewstone et al., 1993; Urban & Miller, 1998).

Intersection. One way that an individual can achieve simultaneous recognition of more than one social identity and yet maintain a single ingroup representation is to define the ingroup as the intersection of multiple group memberships (Figure 1a). For instance, a female lawyer can define her primary social identity in terms of the compound combination of both sex and profession, an identity shared only with other women lawyers. In this representation, the compound category is a single, unique social identity with properties that make it distinct from either of the larger categories from which it is derived.

In this mode, multiple bases of group identification converge on a single social identity with one consolidated ingroup. Those who do not share the joint identities (e.g., lawyers who are male or women who are not lawyers) are outgroup members. Thus, the intersection model of ingroup representation corresponds to the “conjunction/dissimilarity” pattern of responding to multiply categorized others (Urban & Miller, 1998) or what Hewstone et al. (1993) referred to as the “social exclusion” pattern. Only the conjunction of two group identities constitutes the perceiver’s ingroup; any other combination of category memberships are treated as outgroups.

¹The model is not intended to be limited to consideration of only two identities at a time and can be extended to multiple category memberships.

Dominance. Another way that individuals can cope with competing social identities is to adopt one primary group identification to which all other potential group identities are subordinated (Figure 1b). In this model, the ingroup is defined as those who share membership in this primary ingroup category; all other category memberships are essentially not social identities at all but simply aspects of the self as a member of the primary group. In other words, alternative social identities are embedded within the primary group identification (as sources of intragroup variation) but not extended to those outside that ingroup. For instance, a female lawyer who assigns primacy to her professional identity regards all lawyers as fellow ingroup members. Being a woman (or sailor, or Yale Law School graduate, etc.) is a characteristic that describes what kind of a lawyer she is, what makes her more or less similar to others in her ingroup category (and to the category prototype), but her social identity is not extended to women or Yale graduates in general.²

When one social identity takes precedence over all others, the individual should classify other people in terms of their membership in that one category. Those who share the dominant category membership are treated as ingroup members; those who are not in the category are outgroups. This corresponds to the “category dominance” pattern of relating to multiply categorized others (Urban & Miller, 1998). An alternative to complete dominance would be the “hierarchical” pattern of multiple categorization (Brewer, Ho, Lee & Miller, 1987). In this form, anyone outside of the dominant category is treated as an outgroup member regardless of any other identities they may have. However, within the ingroup category further differentiations may be made on the basis of other shared identities. Thus, the woman lawyer may feel closer to other lawyers who are female than to those who are male, but she is still more identified with male lawyers than with females who are not a part of her profession.

Compartmentalization. If more than one group identity is important to an individual as a source of social identity, multiple identities can be activated and expressed through a process of differentiation and isolation (Figure 1c). With compartmentalization, social identities are context specific or situation specific. In certain contexts, one group membership becomes the primary basis of social identity, whereas other group identities become

²Note that we are dealing here with the way in which the individual herself conceptualizes her primary social identities and ingroups. An interesting extension of these ideas would consider the implications of discrepancies between the way an individual defines his or her own social identity and how he or she is categorized by others in a given situation.

primary in different contexts. At the office, for instance, one's professional identity may be the only relevant basis for ingroup–outgroup distinctions; shared identities based on sex, ethnicity, religion, or recreational group memberships are irrelevant and not activated in this setting. In the home, however, religious affiliation or cultural group membership may become the most important basis for shared identity and the social self. With this mode of identity structure, multiple nonconvergent identities are maintained, but the individual does not activate these social identities simultaneously.

Context specificity is emphasized in Turner et al.'s (1987; Turner, Oakes, Haslam, & McGarty, 1994) self-categorization model of social identity in which social identities are presumed to be context dependent and essentially mutually exclusive. If a single social identity is salient in a specific setting, then one would expect that social categorization to dominate both self-categorization and categorization of others as ingroup members or outgroup members within that situation. However, there may be situations in which more than one categorization is relevant and salient (e.g., both gender and occupation may be equally salient in a work context). In that case, social identity theory predicts an additive pattern of evaluation of others as a function of their multiple group memberships (Brown & Turner, 1979). That is, ingroup–outgroup categorizations are combined additively when responding to other individuals. Those who share both ingroup identities with the self are evaluated more positively than those who share only one common ingroup membership, who in turn are more positively evaluated than those who are outgroup members on both dimensions.

Merger. The final model for representation of multiple social group identities is one in which nonconvergent group memberships are simultaneously recognized and embraced in their most inclusive form (Figure 1d). In this mode, ingroup identification is extended to others who share any of one's important social category memberships—social identity is the sum of one's combined group identifications. For the female lawyer, her identification with women as a social group crosses the boundary of lawyer and nonlawyer, and her identification with lawyers crosses the sex divide; therefore, both identity groups are important and salient across situations.

As the combination of social identities involving different constituents and different defining characteristics, such a merged ingroup identity is necessarily highly inclusive and diverse. In this mode, social identity transcends single categorical divisions between people. Thus, the merger model goes beyond additivity of multiple ingroup memberships to what Urban and Miller (1998) referred to as the “equivalence pattern” of evaluating others with multiple

group memberships. The more social identities the individual has, the more inclusive the definition of ingroup becomes, to the point where no sharp ingroup–outgroup distinctions are made on any dimension and all others are evaluated equivalently.

Cognitive Consistency Resolution and Social Identity Complexity

There are parallels between the cognitive and motivational processes involved in reconciling multiple group identities and the processes studied by cognitive consistency theorists (Abelson et al., 1968). More specifically, the four models of identity representation we identified previously correspond roughly to different modes of resolving inconsistency between two incompatible beliefs or attitudes, as outlined by Abelson (1959) and Kelman and Baron (1968). Intersection is similar to a form of cognitive differentiation in which the compatible elements of two cognitions are separated out and dissociated from the inconsistent elements (e.g., the smoker who deals with the potential inconsistency between smoking and health by focusing on the health benefits of smoking in preventing weight gain while denying the potential health risks associated with smoking). Dominance is analogous to the mechanism of “bolstering”—augmenting the strength and commitment to one cognition over the other. Compartmentalization is parallel to the mechanism of cognitive isolation and compartmentalizing in cognitive structures. Finally, merger is analogous to “transcendence,” the introduction of some superordinate principle that makes the inconsistent cognitions compatible.

These different modes of inconsistency resolution and identity representation can be arrayed on a dimension of cognitive complexity as defined by Tetlock (1983). Cognitive complexity is characterized by both differentiation and integration of potentially conflicting beliefs and values. The level of differentiation reflects the degree to which inconsistencies are recognized (rather than denied or suppressed); integration reflects the level of resolution or reconciliation between recognized inconsistencies.

Drawing on Tetlock's (1983) conceptualization of levels of cognitive complexity, our theory orders the four modes of representation of multiple social identities along a continuum from least to most complex. Intersection is the least complex form because it reduces multiple, potentially diverse, group identities to a single, highly exclusive social identity. Dominance is also on the low-complexity end of the continuum because it suppresses inconsistencies within a single ingroup–outgroup dichotomization. Compartmentalization represents the next level of complexity in that separate identities are acknowledged and differentiated, but without any attempt at reconciliation. Merger repre-

sents the highest level of complexity because it preserves both differentiation and integration in an inclusive social identity.

Arraying the modes of identity representation along a continuum acknowledges that the specified types may differ more in degree than in kind. Dominance represents a somewhat more complex and inclusive mode than intersection if the dominant group identity is a relatively large, heterogeneous social category (e.g., women) compared to a homogeneous compound categorization (e.g., WASP). However, if a dominant social identity is a relatively small exclusive group (e.g., a specific profession, a religious sect, or the like), then dominance is very similar to intersection in terms of complexity and inclusiveness. In either case, both dominance and intersection provide a resolution that divides the social world along a single ingroup–outgroup category distinction.

Compartmentalization may also resemble dominance or intersection. Compartmentalized identities may themselves be compound social groups, for example, the person who identifies primarily as a woman lawyer at work but as a Catholic Republican in her family and social life. When specific group identities are very highly compartmentalized, the representation of ingroups is essentially a context-specific form of dominance. On the other hand, if compartmentalization is weak (i.e., different social identities “spill over” into different situations or settings), then differentiated identities may approach representation as merged identities. Finally, when merger is achieved by integrating multiple social identities into a single highly inclusive group identity (e.g., citizen of the world), the resolution resembles dominance, albeit with a highly complex and differentiated primary identity.

Further, individuals may adopt different modes of identity representation at different times, either during different periods of life or under different conditions or mental or emotional states. For example, a person who generally maintains a unified merged representation of his multiple social identities may resort to intersection, dominance, or compartmentalization in times of stress or insecurity. Thus, the subjective representation of multiple identities may reflect both individual differences and situational factors.

Biculturalism: An Illustration

Illustrations of these alternative representations of multiple group identities can be drawn from the literature on acculturation and bicultural identity (Berry, 1990, 1997; Berry & Sam, 1997; Birman, 1994; Phinney, 1990; Phinney & Devich-Navarro, 1997). The prototypic case here is the member of an immigrant group or an ethnic enclave whose societal group membership (country of residence or citizenship) and ethnic–national group membership represent distinct

cultures and overlapping but nonconvergent social groups. As different cultures, the two group identities may represent different and sometimes conflicting sets of norms and values; as different constituencies they may place competing demands on individual loyalty and resources.

As identified in clinical case studies and empirical research on acculturating or adapting to a bicultural environment, individuals cope with the demands of competing cultural identities by adopting different forms of identity management (S. E. Cross, 1995; W. E. Cross, 1991; Sellers, Smith, Shelton, Rowley, & Chavous, 1998).

Hyphenated identities. One form of bicultural adaptation is to locate one’s cultural identity at the intersection of the ethnic and societal levels and thus form a blended bicultural identity (Birman, 1994; Phinney & Devich-Navarro, 1997). In this model, the ingroup is defined exclusively as those who share both ethnic heritage and residence in the host society. With this representation, terms such as African American, Latin American, and Korean American connote more than the combination of two separate group memberships; they represent unique cultural configurations derived from the specific experiences of enacting a particular ethnic-cultural identity within the American context. Such hyphenated identities are often associated with heightened ethnic consciousness and a type of nationalist ideology within the political arena (Sellers et al., 1998). Ethnic politics rests on the assumption that the interests and needs of ethnic subcultures can be understood and represented only by those who share the specific ingroup identity.

Cultural dominance. Another mode of coping with alternative cultural identities involves subordinating one identity to the other. Assimilation to the host culture at the expense of ethnic cultural identity is one form of cultural dominance (Berry, 1990); at the other extreme is exclusive investment in one’s ethnic cultural identity with alienation from the culture of the host society—the separation strategy (Berry, 1990; Phinney & Devich-Navarro, 1997).

Compartmentalization. A third mode of adapting to perceived conflict between alternative cultural group identifications is a kind of cultural “ambidextrousness” in which the individual consciously activates different cultural identities in different contexts or social settings—a pattern referred to as “alternating biculturalism” (LaFromboise, Coleman, & Gerton, 1993; Phinney & Devich-Navarro, 1997). This type of identity structure is illustrated by children of immigrant parents who alternate between the language used at home and the one used in the community (e.g., Harris, 1995) but is extended to other cultural practices, norms, and values

as well. Individuals who adopt this strategy have a sense of competence in both cultures (LaFromboise et al., 1993) but also an awareness of conflict between cultures that renders biculturalism sometimes problematic (Phinney & Devich-Navarro, 1997).

Integrated biculturalism. A fourth form of biculturalism is the concept of intercultural identity (Sussman, 2000). Unlike compartmentalization, in which the different cultures are experienced as basically incompatible and situation specific, this form of biculturalism acknowledges multiple cultural identities simultaneously—where membership, values, and norms of both groups are combined and integrated (Oyserman, Sakamoto, & Lauffer, 1998). It reflects a “humanist ideology” (Sellers et al., 1998) that may correspond to the internationalization of identity development in Cross’s (1991) model of racial identity.

Intercultural identity represents, according to Sussman (2000), a “global identity shift ... neither the integration of home and host culture values (hybridization) nor the bicultural strategy which results from acculturation experience but rather an identity in which the (individuals) define themselves as world citizens” (p. 368). This conceptualization clearly equates multiculturalism with the acquisition of a more inclusive complex group identity than that represented by any component cultural identity alone.

Cognitive Structure and Processes: Underlying Assumptions of the Social Identity Complexity Model

Like Tetlock (1983, 1986), we assume that greater levels of integrative complexity require effort-demanding cognitive strategies and resources. Social identity complexity is the product of a process of recognizing and interpreting information about one’s own ingroups. Having a complex social identity is dependent on two conditions: first, awareness of more than one ingroup categorization and second, recognition that the multiple ingroup categories do not converge. Reconciling the incongruences that are implied by this nonconvergence requires cognitive resources. Thus, like other forms of integrative complexity (Tetlock, Skitka, & Boettger, 1989; Woike & Aronoff, 1992), social identity complexity is subject to situational and motivational determinants as well as individual differences in cognitive style (Schroder, Driver, & Streufert, 1967).

Some individuals may be chronically high in social identity complexity. For such persons, integrative complexity in thinking about multiple ingroup identities may become automatized, requiring relatively little conscious effort or cognitive resources. In most cases, however, social identity complexity can be expected to vary as a function of the individual’s current motiva-

tion to think about his or her multiple ingroup identities and available cognitive resources to merge these identities in an inclusive manner.

Integrative complexity is domain specific. Thus, individuals who have complex representations in one domain of the self-concept do not necessarily have representations of similar level of complexity in other domains. For example, intellectual self-complexity is distinct from religious self-complexity (Nielsen & Fultz, 1997), the complexity of the representation of the actual self is distinct from the complexity of the representation of the future self (Niedenthal, Setterlund, & Wherry, 1992), and positive self-complexity is distinct from negative self-complexity. Moreover, the complexities of representations in different domains have distinctive consequences (Morgan & Janoff-Bulman, 1994).

Our conceptualization of social identity complexity derives from models of category representations. On one hand, social categories can be represented by the prototypical attributes of their members. Prototypes are abstracted representations of the central tendency, average or typical values of the members of a category (Smith, 1998). Based on this aspect of category representation, one way in which relationships between the ingroups of which a person is simultaneously a member can be conceptualized is the extent of perceived similarity between the prototypical attributes of those groups. On the other hand, social categories can also be represented in terms of category boundaries that determine who are considered group members. In line with this type of model, another possible representation of the interrelationships between ingroups of which a person is simultaneously a member is the degree of perceived overlap between the memberships of the various ingroups.

Social Identity Complexity: Toward an Operational Definition

Although complexity of social identities may vary both within and between the four types of cognitive representation we have distinguished here, intersection and dominance can, in general, be classified as relatively low-complexity representations and compartmentalization and merger as relatively high complexity. *Low complexity* means that multiple identities are subjectively embedded in a single ingroup representation, whereas *high complexity* involves acknowledgment of differentiation and difference between ingroup categories.

More specifically, complexity involves understanding what people mean when they say that I am both “A” and “B.” Semantics make it difficult to distinguish whether the “and” in this self-description refers to the intersection of A and B (converging or embedded identities), or the union of A and B as two ingroups. Be-

cause of this semantic ambiguity, attempts to assess this distinction through direct self-report are likely to be met by confusion or social desirability biases. More indirectly, we can attempt to get at the subjective representation by assessing how the individual perceives the degree of overlap between different ingroup identities in terms of meaning and membership. Through such indirect assessment, we can attempt to identify where an individual falls between the extremes of identity convergence or identity complexity when two or more ingroup memberships are made salient.

For the purposes of operationalization, we focus on two aspects of the perceived relationships among ingroups that reflect the two aspects of category representation described earlier. One aspect, based on prototype representation, is the perceived similarity of prototypical values, norms, and other characteristics that define various ingroups. The second aspect, based on membership representation, is the perceived extent of shared membership across the different groups. These two aspects give rise to two different manifestations of subjective overlap between ingroups: overlap of group characteristics (the content of the prototypic representations of the respective groups) and overlap of group members (group composition). For either measure, a high degree of overlap signals a convergent representation of the ingroups as a single social identity; a low degree of perceived overlap reflects a more complex inclusive social identity. However, because these measures reflect different aspects of ingroup representation (prototype and boundary definition), they represent two distinct types of complexity.

Shared Characteristics Across Multiple Ingroups

Individuals differ in the extent to which they perceive the prototypes of the groups of which they are simultaneously members as similar to each other and featuring the same characteristics. The groups male and American could serve as an example. Although these two groups are objectively orthogonal (only half of the Americans are males), they could be perceived as overlapping in their values, norms, and other characteristics: Thus, a male American could conceptualize Americans as being characterized by prototypically male attributes such as physical courage and autonomy. To the extent that an individual sees his or her ingroups as highly similar to each other and as sharing the same basic attributes and values, the different group identities are highly compatible, and it is easy to conceive of the multiple group memberships as a single, relatively homogeneous ingroup. In sum, the more a person perceives the groups to which he or she belongs as being similar to each other, the less complex is his or her social identity.

This operationalization of social identity complexity resembles a number of other identity constructs.

One construct with obvious relevance is that of self-complexity (Linville, 1985, 1987). Linville (1985, 1987) proposed that individuals differ in the complexity of the structure of their self-knowledge: A simple self-concept is represented in terms of a small number of self-aspects with overlapping features and attributes. In contrast, a complex self-concept consists of a large number of aspects with independent features. Social identity complexity is similar to self-complexity in that both concepts describe the interrelations among aspects of self-knowledge. However, they differ in the type of knowledge at their focus: Self-complexity refers to the structure of the perception of personal attributes, whereas social identity complexity refers to the structure of the perception of ingroups. Thus, when self-complexity is measured, individuals report their perception of their own personal attributes. In contrast, when social identity complexity is measured, individuals report their perception of the prototypes of the groups to which they belong. Nonetheless, the two constructs represent analogous concepts at different levels of representation of the self—the personal and the collective selves (Brewer & Gardner, 1996).

Social identity complexity also partially overlaps with role identity concepts. According to role identity theory (Stryker, 1980; Stryker & Serpe, 1994; Stryker & Statham, 1985), each individual occupies multiple roles arranged hierarchically in order of salience. *Role identity* is the self-perception of individuals in a particular social position in relation to others who occupy different roles within the same system. Role identity theory overlaps with social identity complexity in its interest in the consequences of the structural relations between the multiple roles that individuals occupy simultaneously within different social groups or contexts (e.g., Milkie & Peltola, 1999; Voydanoff & Donnelly, 1999). Because roles are relational identities, role complexity derives from the multiple representations of self in relationships with others—what Brewer & Gardner (1996) referred to as the “interpersonal self”—whereas social identity complexity derives from the cognitive representation of one’s ingroups as a whole: the collective self.

Shared Membership Across Multiple Ingroups

Whereas similarity measures of social identity complexity (like self-complexity and role identity) assess identity in terms of the content of group representations, a second manifestation of social identity complexity is the perceived overlap in the composition of group memberships. Some persons may perceive the different groups to which they belong as containing the same members. The groups Catholic and Italian could serve as an example. Although these two groups do not objectively share all of their members (many Italians

are not Catholic, and many Catholics are not Italian), some people may perceive them as highly overlapping: When they think about Italians they think about Catholics, and persons of different religious faith are not considered “real” Italians.

As with overlap in group characteristics, high perceived overlap in group memberships implies that the different ingroups are actually conceived as a single convergent social identity. In this case, the subject boundaries of both ingroups are defined in such a way that they contain only those who share the other identity as well. On the other hand, when overlapping membership between various ingroups is perceived to be relatively small, the boundaries of each ingroup are defined in such a way that they include members who do not share the other identities. In this case, the combined group identities are larger and more inclusive than any of the ingroups alone. In sum, the more a person perceives the groups to which he or she belongs as sharing the same members, the less complex is his or her social identity.

Together, these two dimensions—overlap of group prototypes and overlap of group membership—provide two indirect indexes of whether multiple ingroups are perceived in terms of a single convergent social identity or as the union of different group identities. Because content and composition of ingroup representations are distinct properties of identities, the two indexes are not necessarily expected to be highly correlated, and each would be expected to be only imperfectly related to the complexity and inclusiveness of the individual’s subjective representation of ingroup identities. For instance, a respondent may recognize that two of his group memberships have very different prototypes (e.g., the typical male is different from the typical nurse), indicative of a complex, nonoverlapping identity representation. Yet the same respondent may

subjectively identify with an atypical subtype of both categories (male nurses), indicative of a simple, exclusive ingroup identity. Similarly, a respondent may recognize that two of his or her groups do not share a high overlapping membership (e.g., he or she knows objectively that all Americans are not Christians), but still subjectively represent his or her identities as highly overlapping (e.g, “my” type of Americans are Christians). Nonetheless, across a relatively large number and range of different group identities, high overlap on either index connotes a relatively simple amalgamation of multiple group identities, whereas low overlap implies a more complex social identity.

Antecedents of Social Identity Complexity

In this section we present the underlying cognitive model that led to specific predictions regarding factors affecting identity complexity. We focus on those factors that are particularly relevant to the complexity of representations of one’s ingroups. Social identity complexity is determined by experiential and motivational factors that influence the availability and accessibility of group representations that distinguish one ingroup from another and the cognitive resources available to integrate those multiple representations (cf. Higgins, 1996).

Figure 2 provides a summary representation of factors that might affect the accessibility (both chronic and temporary) of more or less complex representations of multiple group identities. As depicted in the figure, accessibility of a complex representation of social identities is expected to be influenced by three types of factors. First we propose that the way individuals represent their ingroups is affected by the com-

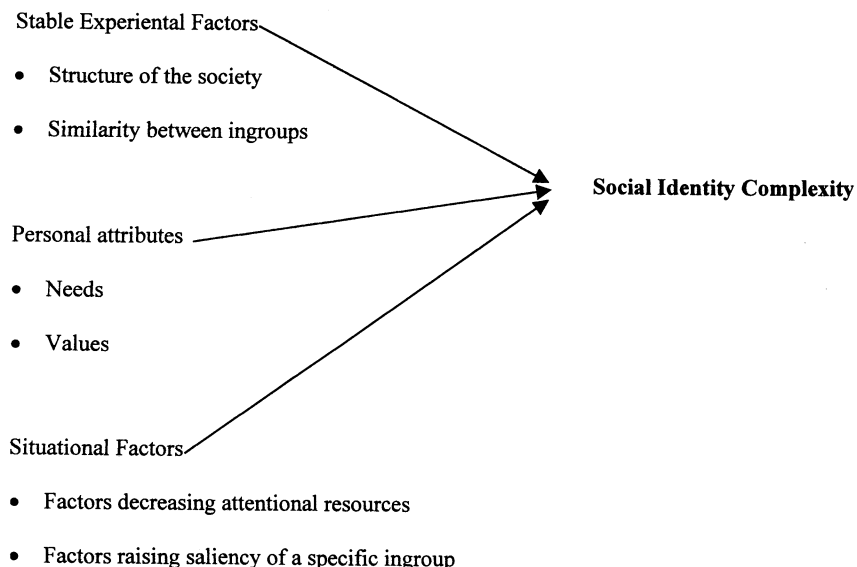


Figure 2. Hypothesized antecedents of social identity complexity.

plexity of their social experiences. In addition, we expect that social identity complexity is affected by stable individual differences in the motivation to attend to complex information. Finally, we expect that social identity complexity is affected by situational factors that temporarily affect attentional resources. Thus, we expect that the first two types of factors will cause stable individual difference in the complexity of representations of ingroups, whereas the third type of factors will cause temporary changes.

Complexity of Social Experiences

Most of the time, individuals are surrounded by others who are similar to themselves (Kelley & Evans, 1995). We are first exposed to our family members who naturally belong to the same race, religion, and socioeconomic status as ourselves. Youngsters go to school with children who live in the same neighborhood, and consequently homogeneity of the immediate social environment is maintained, albeit to a lesser degree. The immediate social environment within which most people are socialized is objectively less complex than the society as a whole. Thus, the local social structure encourages the perception of relatively high similarity and overlap between ingroups, leading to a relatively simple social identity. To develop a complex social identity, special conditions are necessary—conditions that enhance the simultaneous awareness of more than one ingroup and the awareness that these ingroups overlap only partially.

The most obvious factor that may affect social identity complexity is the actual complexity of the experienced social environment. Social environments in which different bases for ingroup–outgroup distinctions are crosscutting rather than convergent confront the individual with knowledge about the differences in meaning and composition of different social categorizations.

Living in a multicultural society, for instance, may enhance awareness that social categorization based on ethnic heritage and social categorization based on national citizenship do not completely overlap and hence raises social identity complexity. Note however that, as our previous discussion of biculturalism suggests, living in a diverse, multicultural society may not always be sufficient to provide the conditions for complex identity formation. The impact of a multicultural environment may be experienced differently for different participants depending on their actual exposure to diversity. In addition, the effects of a multicultural society on social identity complexity are likely to depend on the extent to which the society is stratified along ethnic lines and on prevailing norms concerning multiculturalism.

Living in a stratified society, especially when there is a high degree of congruence between status and ethnic group membership, may reduce experienced complexity even when the society is multicultural. In a society in

which members of different religious or ethnic groups engage in different occupations, for example, there is high objective overlap between the occupational and the ethnic group, and thus low social identity complexity can be expected. Moreover, in stratified societies primary groups are usually composed of individuals who are members of the same ethnic group or social class, and thus contact with individuals who could be simultaneously ingroup and outgroup members is minimal (Kelley & Evans, 1995; Massey & Denton, 1989).

Furthermore, the effect of living in a multicultural society on social identity complexity is also likely to be moderated by societal norms concerning multiculturalism. When people of many cultural backgrounds live together, the cultural groups they form are often not equal in power. Accordingly, some groups are dominant, and their ideology may have extensive influence both on the actual diversity and on the perception of diversity of the whole society. Some dominant groups are explicitly assimilationist and hold an ideology that promotes a single culture in the nation, whereas others are integrationist and explicitly encourage the maintenance of the cultural heritage of nondominant groups (Berry, 1997). It is likely that integrationist ideology enhances the social identity complexity of members of the dominant group because it encourages the various ethnocultural groups to express their diversity and raise its salience. Thus, when integrationist norms prevail, members of the dominant group are more likely to be aware of nonoverlap between their ethnic or racial group and the other groups to which they belong.

Of particular importance in determining social identity complexity is the actual overlap and similarity between one's own ingroups. A person who is a member of groups that are highly similar in their attributes or have highly overlapping members is likely to have a simple representation of the interrelations between those groups. Thus, we suggest that simultaneous membership in groups that are similar or overlapping will result in low social identity complexity. However, being a member of groups that differ markedly in their objective attributes does not necessarily lead to a complex representation. Large differences between the characteristics of one's own ingroups could result in low complexity if one ingroup dominates the representation of the interrelationships between the various ingroups. This can be exemplified both with regard to the relative distinctiveness of one's various ingroups and their status: Distinctive ingroups are generally more salient and are more often used for self-categorization (McGuire & McGuire, 1988; McGuire, McGuire, Child, & Fujioka, 1978). Thus, simultaneous membership in groups that vary in their distinctiveness may result in a representation of the social identity that is dominated by the most distinctive group, and other self-categorizations may be subservient to it. Research on patterns of identities of immigrants supports this reasoning. For example, immigrants living

in neighborhoods where there are fewer members of ethnic minorities are more likely to use ethnicity rather than other categories as a basis of social comparison (Moghaddam, 1992).

A similar line of reasoning applies to differences in the relative status of ingroups. When there are status differences between ingroups, self-representations may be dominated by the highest status group. Thus, individuals identify more with a specific high-status ingroup when they are simultaneously members of a low-status group than when they are simultaneously members of another high-status group (Roccas, 2001). In sum, when one's ingroups are similar in their attributes and share their members, a simple representation of the social identity is likely. When the various ingroups differ from each other, however, two opposing outcomes may result: either a complex representation that reflects the differences between the ingroups or a simple representation, which is dominated by one of the ingroups.

Personal Attributes: Tolerance for Ambiguity

The chronic accessibility of the complexity of the structure of the groups of which one is member will also be affected by personal attributes. The most relevant factor is tolerance for ambiguity because a complex representation of the ingroups provides a less clear cut representation of the social world than a simple representation. Individual differences in tolerance for ambiguity have been studied in terms of cognitive motives and values.

Cognitive Motives and Social Identity Complexity

There are several constructs that assess individual differences in the preference for confronting complex ambiguous information. These include need for closure (Kruglanski, 1990), uncertainty orientation (Sorrentino & Roney, 1999), personal need for structure (Neuberg & Newsome, 1993), and tolerance for ambiguity (Norton, 1974). These measures are likely to assess, at least in part, overlapping individual differences (e.g., Leone, Wallace, & Modglin, 1999; Neuberg, Judice, & West, 1997). They all have in common the need to create and maintain a simple structure and thus are expected to be related to the complexity of the representations of the interrelationships between ingroups. Here we exemplify the possible effects of cognitive motives on social identity complexity by discussing two of these needs: the need for closure and uncertainty orientation.

Need for closure. *Need for closure* is a desire for a quick and definitive answer to any question or decision rather than sustained uncertainty, confusion, or ambiguity (Kruglanski, 1990). The need for closure in-

duces a tendency to seek immediate and permanent answers. That is, individuals with a high need for closure seek answers urgently and strive for stable answers that avoid the necessity of future revisions and the uncertainty and ambiguity that revision process may entail.

A complex social identity lessens the possibility of obtaining firm and unequivocal answers that pertain to group membership of self and of others. When there is low overlap between ingroups, another individual may be simultaneously an ingroup member and an outgroup member. Consequently, there is no definite answer to questions such as "Is this person one of 'us' or one of 'them'?" Similarly, when ingroups are perceived as highly dissimilar from each other, there is no definite answer to questions such as "Is this a 'good' group member?" When ingroups are characterized by different values and norms, the same individual may be considered a good member of one group and an unsatisfactory member of another ingroup. Therefore, it is likely that individuals with high need for closure prefer to perceive their ingroups as similar to each other and as sharing their members and are thus likely to have relatively low social identity complexity.

The relationship between need for closure and social identity complexity has not been empirically examined directly. However, findings from a number of studies indicate that need for closure enhances the desire for a homogeneous social environment (Kruglanski & Webster, 1991; Kruglanski, Webster, & Klem, 1993). For instance, Kruglanski and Webster (1991) found that individuals in small groups placed under conditions activating high need for closure were more likely to reject a confederate who professed to hold a deviate opinion. Similarly, Kruglanski et al. (1993) found that individuals with a high need for closure exhibited a stronger preference for agreement with their dyadic partners relative to individuals with a low need for closure. Further, the need for closure has been demonstrated to be related to degree of ingroup favoritism and outgroup derogation (Shah, Kruglanski, & Thompson, 1998), supporting the idea that low tolerance for ambiguity is associated with clear ingroup-outgroup categorization.

Uncertainty orientation. Like need for closure, the concept of uncertainty orientation refers to individual differences in regulation of uncertainty and ambiguity (Sorrentino & Roney, 1999). At one extreme of the continuum are individuals who are certainty oriented, who develop a style that actively avoids confronting uncertainty; at the other extreme, uncertainty-oriented individuals handle uncertainty by seeking out information aimed at confronting and resolving uncertainty or confusion. Based on this definition, we would expect certainty-oriented persons to avoid recognition of nonconvergent group identities and to represent multiple social identities as a single (joint) ingroup. On the other hand, uncertainty-ori-

ented individuals should be more willing to seek out information about the self and the social environment that would lead to high social identity complexity.

Consistent with our hypothesis, uncertainty orientation has been found to play a role in social categorization processes (Sorrentino, Hodson, & Huber, 2001). Certainty-oriented individuals, for instance, perceive their ingroups as more homogeneous than do uncertainty-oriented individuals, especially in intragroup contexts. Further, certainty-oriented individuals exhibit stronger ingroup bias under conditions of uncertainty. Both of these findings suggest that persons who are certainty-oriented use ingroup–outgroup distinctions to maintain clarity and avoid uncertainty, whereas uncertainty-oriented people are more tolerant of unclear ingroup boundaries.

Values and Social Identity Complexity

The same line of reasoning that links social identity complexity with cognitive motives applies to its relation with personal value priorities. Values are cognitive social representations of basic motivational goals, varying in importance, which serve as guiding principles in people's lives (Kluckhohn, 1951; Rokeach, 1973; Schwartz, 1992). Based on universal requirements of human existence, Schwartz (1992, 1994, 2000; Schwartz & Sagiv, 1995) identified 10 motivationally distinct types of values and verified these distinct types in cross-cultural research in more than 60 countries.

The 10 value types form a circular structure that can be summarized into two basic conflicts.

Self-enhancement versus self-transcendence.

Power and achievement value types are in conflict with universalism and benevolence value types. Both of the former emphasize pursuit of self-interests, whereas both of the latter involve concern for the welfare and interests of others.

Openness to change versus conservatism. Self-direction and stimulation value types are in conflict with security, conformity, and tradition value types. Both of the former emphasize independent action, thought and feeling, and readiness for new experience, whereas all of the latter emphasize self-restriction, order, and resistance to change.

Values affect the way in which individuals perceive and interpret information (Schwartz, Sagiv, & Boehnke, 2000). Hence values may affect the perception of ingroups and the awareness of nonoverlap between the various groups of which an individual is simultaneously a member. The value types most likely to affect accessibility of a complex social structure are conservatism and openness to change. *Conservatism values* express the motivation to avoid uncertainty, ambiguity, and instability. Individuals who

emphasize these values are motivated to perceive the environment in simple terms. Awareness that ingroups do not overlap and are dissimilar from each other contrasts with the motivation to avoid ambiguity and can evoke a sense of instability and insecurity. Hence, individuals who value conservatism are likely to develop a simple social identity. Conversely, those who emphasize *openness to change* are motivated to learn and explore and to make independent judgments based on their own experience. They are less likely to accept prevailing social norms and more likely to develop a complex social identity. We also expected that social identity complexity would be related to the importance placed on universalism versus power values. *Universalism values* emphasize tolerance and understanding of all people and thus express easiness with unclear ingroup boundaries. In contrast, *power values* express the motivation to legitimize hierarchical relations and to strive to control people and resources. Clear ingroup boundaries help to promote the pursuit of these values because they clarify hierarchical relations between individuals and groups. Thus, individuals who emphasize power values are likely to develop a simple social identity with clear distinction between ingroup and outgroup members.

Situational Factors

The socialization experiences and the stable individual differences we have discussed produce long-term effects that are likely to determine chronic accessibility of complex representations of multiple social identities. Above and beyond these chronic variables, situational factors that affect salience of specific ingroup identities and cognitive capacity are also likely to influence social identity complexity at least temporarily.

Distinctiveness. Individuals tend to pay particular attention to attributes that make them distinctive. Thus, individuals shift their basis of categorization from context to context and tend to use the ingroup that is distinctive in each specific context (McGuire & McGuire, 1988). For example, the probability that a respondent describes himself or herself in terms of his or her gender is greater the higher proportion of people of the opposite gender present at the moment (Cota & Dion, 1986). Thus, we expect that in situations in which a specific ingroup is particularly distinctive, that group will play a dominant role in the representation of the social identity, resulting in a simple representation of the interrelationships among the various ingroups.

Cognitive load. Situational demands that place a heavy load on attention capacities, such as performing multiple tasks concurrently, usually have detrimental effects on information processing, retrieval, and analysis (e.g. Conway, Carroll, Pushkar, & Arbuckle, 1996;

Osterhouse & Brock, 1970; Petty, Wells, & Brock, 1976). Individuals are not usually constantly aware of all of their group memberships: Usually they are most aware of the categories that render the social context subjectively most meaningful—the social categories in which there is most similarity within groups and maximum distinctiveness between groups (Oakes & Turner, 1990; Turner et al., 1987). Moreover, it is likely that the overlap between ingroups is more chronically accessible than nonoverlap because individuals are usually surrounded by others who share their same ingroups. Thus, the awareness of complex social identities may require greater cognitive effort and attention than more simple ingroup representations. As a consequence, cognitive overload may affect the accessibility of information that contributes to a complex social identity (simultaneous awareness of multiple ingroups and awareness of nonoverlap between them) more than the accessibility of information pertaining to simple social identity (awareness of only one ingroup or perception that all ingroups overlap extensively), resulting in a temporary reduction of social identity complexity.

Stress. A similar line of reasoning applies to the effects of acute stress on social identity complexity. Considerable research indicates that anxious people appear to have diminished cognitive resources (for a review, see Wegner & Wenzlaff, 1996). Anxiety is especially detrimental to performance on effortful tasks but has little effects on easy tasks or automatic ones (Ingram & Kendall, 1987; Kahneman, 1973; for a review, see Eysenck, 1992). In addition, extensive research indicates that stress causes the narrowing of attentional focus (e.g., Neufeld & McCarty, 1994; Salmela & Ndoeye, 1986; Steblay, 1992; but see Heuer & Reisberg, 1990, for a different view). Under stress, individuals often focus on the central features of stimuli and neglect peripheral characteristics. This could affect both aspects of social identity complexity in that individuals under stress will tend to perceive their groups as largely overlapping and largely similar. These predictions are specific to negative moods that deplete cognitive processing. Thus, they could be extended to anger but not necessarily to sadness or happiness (Fiske, 1998).

Ingroup threat. A threat to an ingroup is likely to affect the representations of social identity through multiple processes. First, it is likely to raise the salience of the threatened ingroup relative to that of other ingroups. Thus, the threatened ingroup may temporarily dominate social identity, and membership in the other ingroups becomes both less important and less differentiated. In addition, threat is likely to induce stress and deplete attentional resources and consequently lead to a simplified representation of the ingroups. Consistent with our hypotheses, threat has been found to affect social categorization processes (Rothgerber, 1997). For instance,

when there is a perception of threat, individuals perceive their ingroup as more homogeneous and perceive the self as more similar to the ingroup and more different from the outgroup. This finding suggests that under threat individuals prefer clear ingroup boundaries.

In sum, we propose that social identity complexity is affected both by chronic and by temporal accessibility of simultaneous membership in nonconvergent ingroups. Social identity complexity may thus vary both across individuals and across situations. Factors that affect chronic accessibility of multiple ingroups (e.g., the objective complexity of the social environment, personal motivations, and values) will contribute to individual differences in social identity complexity. Factors that affect cognitive capacity to integrate ingroup representations (e.g., cognitive overload, stress) will contribute to variations in social identity complexity across situations, particularly for individuals who are not chronically complex in social identity.

Social Identity Complexity and Its Correlates: Preliminary Findings

In the initial stages of a program of research to assess social identity complexity and its correlates, we conducted questionnaire surveys in two cultural contexts—the United States and Israel—to test some of the specific correlational predictions derived from our theoretical analysis of antecedent conditions.

Values and social identity complexity. Our first effort to develop and test measures for social identity complexity was a study conducted among American undergraduate college students. In the initial phase of the study, we asked respondents ($n = 198$) to check various social categories to which they belong (from a lengthy list of ethnic, religious, political, organizational, demographic, and geographical social groups) and to indicate which of these group memberships were particularly important to them. The vast majority of students listed at least four or five different social identities as important to them, and most of these represented crosscutting social categorizations (e.g., Catholic religion and Ohio citizen). Based on responses to this initial survey, we selected a subsample of respondents who identified themselves as White, American, college students, and affiliated with a large religious denomination, and who included these group memberships among their most important social identities. Social identity complexity measures were then computed with respect to these four social categories—nationality, ethnicity, religious denomination, and university.³

³Note that by virtue of our selection rules, the target social categories were equivalent in type and size across all respondents. Thus, our complexity measures reflected individual differences in subjective representations of these social identities.

In the second phase of the study, we reminded respondents of their individual social group identities and asked them a series of questions about the relationships they perceived between all pairings of their ingroups (e.g., Catholics and Americans). One series of questions assessed their subjective impression of the extent of overlap in membership between each of their ingroups in each direction of comparison (e.g., "Of persons who are Catholic, how many are also university students?" "Of persons who are university students, how many are also Catholic?"). Judgments were made on a 10-point scale ranging from 1 (*very few*) to 5 (*about half*) to 10 (*all*). An index of overlap complexity was created by calculating the mean rating of proportion of overlap between ingroups in which high values indicated greater overlap and less complexity in the representation of multiple identities.

A second series of questions assessed their subjective impression of the extent of similarity between each of their ingroups. For every pairing of the four ingroup identities, participants were asked to indicate how much they agree that a typical member of one of the two ingroups is highly similar to a typical member of the other ingroup (e.g., in general, the typical American is very similar to the typical college student) using a 7-point rating scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). An index of similarity complexity was created by computing the mean similarity ratings across all ingroup pairs, with higher scores indicating greater shared characteristics and lower complexity. The two measures of complexity were only slightly positively correlated ($r = .17$).

Respondents also completed the Schwartz Value Inventory (Schwartz, 1992; Schwartz & Sagiv, 1995) rating the importance they placed on 56 specific values representing the 10 types of values. From responses to this measure, we computed four value indexes that reflected the two dimensions (openness vs. conservatism and power vs. universalism) we predicted to be related to social identity complexity. The standard indexes recommended in Schwartz (1992, 1994) were used to measure the priority given to each type of values. *Openness* was computed as the average importance placed on creativity, freedom, independent, curious, choosing own goals, daring, a varied life, and an exciting life. *Conservatism* was defined as the average of humble, accepting my portion in life, devout, respect

for tradition, moderate, politeness, obedient, self-discipline, honoring parents and elders, family security, national security, social order, clean, and reciprocation of favors. *Power* was an index based on the importance of social power, authority, wealth, and preserving my public image, and *universalism* was derived from ratings of broad-minded, wisdom, social justice, equality, a world at peace, a world of beauty, unity with nature, and protecting the environment. We expected power and conservatism to be negatively related to social identity complexity and conversely that openness and universalism would be positively related to the complexity indexes.

Table 1 presents the results of the intercorrelational analysis between our measures of complexity and values. Both similarity complexity and overlap complexity were related to the value dimensions in the predicted direction. Scores on the social identity complexity measures were higher (lower complexity) for persons who ascribe relatively high importance to conservatism values or to power, or both. Conversely, importance of openness to change and universalism values were associated with higher social identity complexity.

The pattern of intercorrelations in Table 1 was consistent with our analysis of the value antecedents of social identity complexity. Values associated with low tolerance for ambiguity (conservatism as opposed to openness to change) are related to low complexity of ingroup representations. This relation was equivalent for both indexes of social identity complexity. In addition, social identity complexity—particularly the overlap complexity measure—proved to be associated with tolerance-related values (universalism as opposed to power). The size of the correlations were moderately positive, indicating that complexity is at least in part a reflection of value preferences but not equivalent to conservatism or universalism per se.

Mood and social identity complexity. We examined the association of social identity complexity and stress in a survey administered to Israeli university students. The measures in Hebrew were developed by translating and back translating the measures developed for the American samples. We selected a subsample of respondents who identified themselves as secular, Israeli, college students, and Jewish ($n = 99$). These groups were used for the complexity mea-

Table 1. Correlations of Values With Two Indexes of Social Identity Complexity^a

Complexity Index	Type of Value			
	Conservatism	Openness	Power	Universalism
Similarity	.20*	-.25**	.10	-.13
Overlap	.17	-.24**	.27**	-.27**

^aCorrelations are partialled on each respondent's mean rating of all values to correct for scale use, as recommended in Schwartz (1992).

* $p < .05$; ** $p < .01$.

asures. The two measures of complexity were again only slightly positively correlated ($r = .14$).

The survey administered to the Israeli sample included a mood checklist, which was administered before the complexity measures. The mood checklist consisted of 15 mood states that tapped four types of mood: Stress (e.g., worried, agitated), cheerful (e.g., happy, joyful), calm (e.g., calm, relaxed), and sad (e.g., sad, disappointed). Participants were instructed to check all the items that reflected their current mood. For each type of mood we computed a score by calculating the number of checked items divided by the total number of items reflecting that mood.

We calculated the correlation between social identity complexity scores and the presence of stress-related mood. Both complexity indexes were significantly correlated with stress-related mood in the expected direction. That is, individuals who were experiencing stress had higher social identity complexity scores (lower complexity) than individuals who were not experiencing such emotions ($r = .31, p < .01$ for similarity complexity; $r = .23, p < .05$ for overlap complexity). Consistent with the hypothesis that mood effects on social identity complexity would be specific to stress-related affect, the correlations between the other three mood indexes and both indexes of complexity were all nonsignificant (range = .00–.14).

In sum, findings indicate that experiencing a mood that depletes cognitive resources is associated with lower complexity of the representation of the social identity. This is consistent with past research (e.g. Easterbrook, 1959) indicating that strong emotional arousal narrows attention to focus on central cues to the exclusion of more peripheral stimuli. To our knowledge, the effects of stress on the complexity of self-representations in other self domains has not yet been examined, but we would expect similar results for other domains as well.

Ingroup threat. To examine the causal link between threat and complexity we conducted an experiment in which social identity complexity was measured after threat was experimentally manipulated. The experiment was conducted in Israel using student respondents selected according to the same criteria of ingroup memberships as used in the survey study. We manipulated threat by raising either (a) the accessibility of the threat of use of unconventional weapons in a possible future war with Iraq (high-threat condition) or (b) the accessibility of issues related to nature (low-threat condition). The accessibility of threat was manipulated with a four-item attitude questionnaire (e.g., “As long as Iraq has chemical weapons there is a chance that Israel will be attacked with such weapons” vs. “A nature walk can be relaxing”). In two separate replication experiments, we measured either similarity complexity (Experiment 1, $n = 38$) or over-

lap complexity (Experiment 2, $n = 39$) for the four targeted ingroups. Following the complexity measure, the mood checklist was administered (as in the survey questionnaire study).

Using the mood measures as a check of the consequences of the threat manipulation, high threat showed effects on stress-related mood in both experiments. In Experiment 1, the mean stress index for participants in the high-threat condition ($M = .30$) was significantly higher than that for low-threat participants ($M = .00$), $t(36) = 2.73, p = .01$. Similarly, in Experiment 2, the high-threat condition resulted in higher stress-related mood ($M = .37$) than the low-threat condition ($M = .14$), $t(37) = 2.20, p < .05$. Further, in both replications there was no significant effect of the threat manipulation on either positive moods (happy, calm) or non-stress-related negative moods (sad).

The threat manipulation also had the predicted effect on the two indexes of social identity complexity. High threat decreased complexity both for the similarity measure and for the overlap measure. As expected, participants in the high-threat condition in Experiment 1 perceived their ingroups as being more similar to each other ($M = 4.20, n = 18$) than did participants in the low-threat condition ($M = 3.57, n = 20$), $t(36) = 2.42, p < .05$. Participants in the high-threat condition in Experiment 2 also perceived higher overlap between their ingroups ($M = 6.68, n = 20$) than participants in the low-threat condition ($M = 5.91, n = 19$), $t(37) = 2.56, p < .05$.

Although the threat manipulation in both experimental replications affected both stress and social identity complexity as predicted, the condition effect on the two complexity measures remained significant even when stress effects were taken into account in multiple regression analyses. In Experiment 1, the regression coefficient for the condition effect was .41, $p < .05$ after stress rating had been entered into the regression model. In Experiment 2, the residual effect of condition was .38, $p < .05$ after stress was included. Thus, the threat manipulation affected the complexity of the representations of the ingroups above and beyond its effect on the stress experienced by the participants. We interpreted this as indicating that threat affected social identity complexity at least in part by raising the saliency of the threatened ingroup. To test this interpretation we computed both measures of identity complexity without including items related to the Israeli identity. If the threat manipulation affected complexity through its impact on the salience of the threatened ingroup, the threat manipulation should have smaller effects on the complexity indexes based only on nonthreatened ingroups. Consistent with this interpretation, the threat manipulation had small and not statistically significant effects on the two new indexes of social identity complexity.

Consequences of Social Identity Complexity

The importance of studying subjective representations of social identity is closely related to its consequences. We expect that some of the implications of social identity complexity are similar to the implications of the complexity of representations in other domains of the self-concept. Thus, we expect that complexity of the social identity may help individuals successfully confront the affective implications of negative events related to their social identity, just as personal self-complexity helps confront negative events related to the personal identity (Linville, 1987). In addition, we suggest that social identity complexity has unique implications for intergroup relations. We focus our discussion on the latter.

Tolerance of Outgroup Members

Social identity complexity is based on chronic awareness of cross-categorization in one's own social group memberships and those of others. A simple social identity is likely to be accompanied by the perception that any individual who is an outgroup member on one dimension is also an outgroup member on all others. In contrast, if an individual is aware that one of his or her ingroups only partly overlaps with any other of his or her ingroups, then we assume that individual is also aware that some of his or her ingroup members have crossed group memberships: They are ingroup members on one dimension but are simultaneously outgroup members on others. Making salient that an outgroup member on one category dimension is an ingroup member on another decreases bias by comparison with instances in which the latter information is not available (Gaertner, Dovidio, Anastasio, Bachman, & Rust, 1993). We suggest that this effect of social identity complexity can be extended to a tolerance for outgroups in general.

There are a number of theoretical reasons why a complex representation of ingroup categorization should influence intergroup attitudes and behavior in ways that reduce bias and discrimination. First, crosscutting distinctions make social categorization more complex and reduce the magnitude of ingroup-outgroup distinctions. According to social categorization theory (Deschamps & Doise, 1978; Doise, 1978; Vanbeselaere, 1991), processes of intracategory assimilation and intercategory contrast counteract each other when categories are crosscutting. Thus, the effects of intercategory accentuation are reduced or eliminated, and differences between groups are minimized (or no greater than perceived differences within groups). This undermines the cognitive basis of ingroup bias. Second, partially overlapping group memberships reduce the evaluative significance for the self of intergroup comparisons, thereby

undermining the motivational base for intergroup discrimination (Vanbeselaere, 1991). Third, multiple group memberships reduce the importance of any one social identity for satisfying an individual's need for belonging and self-definition (Brewer, 1991), again reducing the motivational base for ingroup bias.

Finally, principles of cognitive balance (Heider, 1958; Newcomb, 1963) are also brought into play when ingroups and outgroups have overlapping membership. When another person is an ingroup member on one category dimension but belongs to an outgroup in another categorization, cognitive inconsistency is introduced if that individual is evaluated positively as an ingroup member but is also associated with others who are evaluated negatively as outgroup members. In an effort to resolve such inconsistencies, interpersonal balance processes should lead to greater positivity toward the outgroup based on overlapping memberships.

In sum, both cognitive and motivational factors lead us to predict that complex social identities will be associated with reduced ingroup favoritism and increased tolerance and positivity toward outgroups in general.

Preliminary Findings: Social Identity Complexity and Tolerance

As an initial test of our hypotheses about social identity complexity and tolerance, the questionnaire surveys administered in the United States and Israel were expanded to include measures of tolerance toward outgroup members.

U.S. survey. Of the 122 respondents in the survey conducted among American college students, approximately half ($n = 62$) had an additional section at the end of their questionnaires in which they rated—on a 7-point scale of feelings of closeness ranging from 1 (*not at all*) to 7 (*very much*)—a series of target persons described by category memberships. Tolerance for outgroup members was computed by averaging the responses to three targets. One of the targets was member of an outgroup defined by race, one was member of an outgroup defined by religion, and one was member of an outgroup defined both by race and religion. The descriptions were tailored for each participant according to his or her own race and religion.

As expected, tolerance toward outgroup members was higher for persons who had lower scores (higher complexity) on the overlap measure ($r = -.32, p = .01$). Similarity complexity correlated in the expected direction, but the correlation was small and not significant ($r = -.17, p > .10$).

Results of multiple regression analyses confirmed that the relation between overlap complexity and tolerance was significant even when controlling for personal value priorities. Two values indexes were entered

in the analysis, derived from the two value dimensions in our previous study (see Table 1): (a) The difference between the importance of universalism values and the importance of power values reflected the relative value placed on tolerance, and (b) the difference between the importance of openness values and the importance of conservatism values reflected the relative value placed on independence from group norms. When overlap complexity was added to the model to predict tolerance ratings, the multiple correlation increased significantly ($R = .42$) above the correlation for values alone, $F(1, 58) = 4.94, p < .05$. Similarity complexity had no distinctive contribution to the prediction of tolerance.

Israeli survey. In the Israeli sample, respondents reported their readiness to engage in social contact with recent immigrants from the former Soviet Union. We asked the students about the acceptability of contact with outgroup members—on a 5-point scale of readiness ranging from 1 (*not at all*) to 5 (*very much*)—in six domains: intermittent social relation, next-door neighbor, guest at one's home, intimate friend, having a child play together, and having a child marry a recent immigrant ($\alpha = .91$).

Table 2 presents the obtained intercorrelations among the measures of stress-related mood, social identity complexity, and tolerance for contact. As expected, both similarity complexity and overlap complexity were positively related to readiness to engage in social contact with outgroup members. In addition, as indicated earlier, both measures were correlated with reported current stress. However, results of multiple regression analyses confirmed that the relation between the indexes of complexity and tolerance were significant even when controlling for reported stress. When similarity complexity was added to the model to predict tolerance ratings, the multiple correlation increased significantly ($R = .32$) above the correlation for stress alone, $F(1, 94) = 8.94, p < .005$. Similarly, when overlap complexity was added to stress, the multiple correlation ($R = .29$) was increased significantly, $F(1, 94) = 7.05, p < .01$. Further, each complexity index made a unique contribution to the prediction of tolerance. Thus, when overlap complexity was added to stress and similarity complexity, the multiple correlation ($R = .40$) increased significantly, $F(1, 93) = 6.06, p < .05$.

In sum, both the American and the Israeli survey confirm that social identity complexity is positively

related to tolerance toward outgroups. Results from the Israeli survey indicate that both similarity and overlap complexity have a distinctive contribution to the prediction of tolerance above and beyond the effects of stress. Furthermore, results from the American survey indicate that overlap complexity (but not similarity complexity) has a distinctive contribution to the prediction of tolerance above and beyond the contribution of personal value priorities. The two surveys differed in the cultural group examined and in the measures of tolerance. Taken together these results provide support for our hypothesis that the complexity of representation of multiple ingroups is related to intergroup prejudice.

Social identity complexity, tolerance, and threat.

Experimental and field studies of ingroup identification indicate that when some external event threatens one of a person's important social identifications, ingroup bias intensifies. People who strongly identify with their ingroup show greater extremity in the favorability of their evaluations of ingroup members when they perceive a threat to their identity (Branscombe & Wann, 1996; Branscombe, Wann, Noel, & Coleman, 1993). This pattern has been largely attributed to motivational factors. Social identity complexity, however, may serve as an alternative interpretation of what mediates this relation between external threat and ingroup bias. Threat may lower social identity complexity, and lower complexity may in turn result in lower tolerance toward outgroups.

Buffering effects of social identity complexity.

On the converse side, high social identity complexity may help individuals confront threats to the status of any single ingroup. Individuals who are simultaneously members of multiple groups that differ in their status can shift their locus of identity between their lower status and higher status groups (Roccas, 2001). Thus, high social identity complexity may serve as a buffer against aversive effects of threats to the status of a particular ingroup. Such a buffering role may be one factor in explaining the apparently small effects that membership in stigmatized groups has on well-being. Extensive research indicates that members of low-status groups do not have lower self-esteem than members of high-status groups, nor are they particularly dissatisfied with their lives (e.g. Crocker & Major, 1989; Diener & Diener, 1996). Possibly the debilitat-

Table 2. Intercorrelations Among Stress-Related Mood, Social Identity Complexity, and Tolerance for Contact With Outgroup Members

	Similarity Complexity	Stress-Related Mood	Tolerance
Overlap Complexity	.14	.23	-.30
Similarity Complexity		.31	-.31
Stress-Related Mood			.13

ing effects of membership in one low-status group are mitigated by simultaneous membership in groups with relatively high status. Thus, for example, members of a discriminated group can enhance their self-esteem by identifying with a successful sports team.

Research (e.g. Dixon & Baumister, 1991; Linville, 1985, 1987; Morgan & Janoff-Bulman, 1994) stemming from self-complexity theory indicates that individuals high on self complexity experience smaller negative reactions in response to painful events. These studies have examined threats that were specifically directed to individuals. We propose that social identity complexity may have an analogous buffering effect for threats directed to an ingroup. Support for this hypothesis was obtained in a recent study (Ruvolo, 1999) in which social identity complexity was experimentally manipulated by assigning participants to multiple (versus single) social categories. Participants in the multiple identity condition were less affected by a social identity threat (receiving negative information about the ingroup) than participants with a single ingroup category who rated their ingroup less favorably after a threatening message.

Conclusion

We suggest that individuals differ in the complexity of their subjective representations of their multiple ingroups and indicate factors that could account for these differences. Individuals who live in a multicultural society that embraces an integrationist ideology are likely to have more complex representations of their multiple identities than individuals who live in a monocultural or a stratified society. Individuals who have a high need for closure or value motivational goals that emphasize maintenance of the status quo will have a simpler representation of the interrelations between their ingroups than individuals with the opposite motivations. We also propose that the representation of one's ingroups is likely to be affected by factors that limit attentional resources, such as stress or cognitive load. Our initial findings provide support for our hypotheses concerning the relations between social identity complexity, values, threat, and tolerance.

At this point, the development of our measures of social identity complexity is still rather crude and the data very preliminary. Although these results are encouraging, validity of the measures should be investigated further, particularly with regard to how the relations of social identity complexity with external variables are affected by the specific groups included in the measure. However, if these findings are replicated with more refined measures and larger samples, they provide support for our thesis that awareness of ingroup diversity provides an effective formula for reducing intergroup prejudice.

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