



Socialization: Insights from Social Cognition

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Abstract

Socialization is the process by which individuals are assisted to become members of their social groups. Findings from social cognition and cross-cultural psychology offer two major insights into the socialization process. First, basic social cognitive principles imply that the immediate environment functions as a socialization agent by activating and inhibiting knowledge structures and thereby shaping cognition and behavior. Second, because the immediate environment factors into cognition and behavior, socialization efforts should involve the modification of the environment for optimal effect. We discuss various examples of socialization through the configuration of the immediate environment, such as rituals and use of physical artifacts. Our review links basic social cognitive mechanisms to socialization processes, which are customarily treated at higher levels of analysis.

How do children come to act like other members of their groups? How do immigrants become part of a new culture, and how do people adapt to their occupational roles? All these questions are about the process of socialization, most broadly defined as ‘the way in which individuals are assisted in becoming members of one or more social groups’ (Grusec & Hastings, 2007, p.1). Even though socialization is not a prominent concept in social psychology, ideas emanating from social cognition research are ripe with implications for understanding the socialization process. In this article, we will spell out the implications of social cognitive principles on socialization.

Research in social cognition has revealed a great deal about how people process mental representations of social knowledge (e.g., Smith, 1998; Macrae & Bodenhausen, 2000). Social and cross-cultural psychologists built on these ideas and have shown how cultural knowledge and identity can fruitfully be conceptualized as mental representations like any other social information (e.g., Hong & Chiu, 2001; Lehman, Chiu, & Schaller, 2004). In this article, we adopt these cognitive conceptualizations of culture and identity as complex and loose knowledge structures, and define socialization as the process by which individuals are helped to acquire, maintain, and apply these knowledge structures. This social cognitive perspective offers two major insights to our understanding of socialization:

- (1) *Immediate context is a crucial socialization agent.* The immediate context is an agent of socialization because it activates or inhibits previously acquired knowledge structures, and can thereby shift cognition and behavior. Socialization outcomes thus are real-time constructions resulting from the joint input of socialization history and immediate context. The effects of the social, physical and symbolic environments need not be conscious and are often automatic. For example, the sight of an American flag may inadvertently activate a patriotism schema for an American and hearing Spanish may

activate self-schemata that a Hispanic American has constructed at home rather than at school. This contextual flexibility of behavior leads to a second implication.

- (2) *Because socialization outcomes are context-dependent, socialization efforts should involve the structuring of the immediate context.* If the immediate context mediates the effect of socialization history on current behavior, environments should be arranged to elicit desired socialization outcomes. From such a perspective, many prevailing practices can be interpreted as socialization tools. For example, activation of religious concepts through ritual or physical cues leads to prosocial behavior and inhibits temptation-related ideas (Fishbach, Friedman, & Kruglanski, 2003; Pichon, Boccato, & Saroglou, 2007; Shariff & Norenzayan, 2007).

In this article, we expand on these two insights into socialization that are derived from social cognitive principles.

The Socialization Construct

Brezinka and Brice (1994) have noted that, since its introduction, the word ‘socialization’ has been one of the vaguest terms in the lexicon of the social sciences despite its absorption into the vocabularies of numerous fields. An exploration through the archives of the Annual Review series shows that articles mentioning socialization were published in volumes as diverse as Sociology, Psychology, Anthropology, Political Science, Public Health, Law and Social Science, Environment and Resources, and Nutrition. This broad coverage illustrates the centrality of the socialization concept to social sciences. Socialization is about the ways in which human groups perpetuate themselves and transmit their norms, and as such, there is no question that any effort to understand, predict and shape human behavior will require tackling the concept of socialization. This is why socialization belongs to the vocabulary of just about all social sciences. Within the psychology literature, socialization has most often been studied by developmental psychologists, as evidenced by the list of contributors to the Handbook of Socialization (Grusec, & Hastings, 2006). Still, a social cognitive perspective contributes uniquely to our understanding of the socialization process. To appreciate this unique contribution we first need to review how basic social cognitive principles are employed to understand the workings of culture in individual minds.

A Social Cognitive Approach to Culture

For decades now, cognitive and social psychologists have studied different forms of cognitive representation, such as stereotypes, schemata and scripts (Carlston & Smith, 1996; Macrae et al., 1998; Smith, 1998; Wyer, 2007). This research has shown that knowledge structures are not equally accessible at all times and their accessibility depends on factors such as the recency and frequency of use (Bruner, 1957; Collins & Quillian, 1969; Higgins, 1996; Higgins & Brendl, 1995). Also, the knowledge is structured like a network and the activation of one component tends to activate related components of the network. This last point is the basic principle behind ‘priming’ – the process of creating perceptual, cognitive, motivational or behavioral readiness by activating knowledge structures (Bargh, 2006; Bargh & Chartrand, 2000).

The application of these principles to the study of culture and identity provides us with a bridge toward an understanding of socialization in cognitive terms. Cross-cultural psychologists who work in the social cognitive tradition have adopted a definition of culture

as a loose knowledge structure that is shared among a collection of interconnected people (Chiu & Hong, 2007; Hong & Chiu, 2001). The knowledge structure of culture works by the same principles that govern other types of mental representation. Some elements of this structure may be chronically accessible because of wide consensus, frequent reproduction in communication, and frequent representation in external carriers of culture (Lyons & Kashima, 2003; Morling & Lamoreaux, 2008; Sechrist & Stangor, 2001). Other elements of the cultural knowledge network will require contextual cues for their activation. Researchers can capitalize on this formulation by using priming techniques that make different cultural identities salient. Research with bicultural individuals that has primed cultural identity has shown that the effects of cultural procedures, values, beliefs, and attitudes are mediated by their activation (e.g. Oyserman & Lee, 2008; Peng & Knowles, 2003; Verkuyten & Pouliasi, 2002; Wong & Hong, 2005; for reviews see Hong, Morris, Chiu, & Benet-Martinez, 2000). We will now review these findings.

Biculturalism

Research on biculturalism powerfully illustrates how activation of knowledge structures promotes the production of culture-specific ways – the ultimate goal of all socialization practices. Bicultural individuals have mastered two different cultural knowledge structures and they have to selectively apply these knowledge structures to their life situations. How do they accomplish this juggling act? The answer is that bi-cultural individuals are capable of ‘frame switching.’ This means that they can switch between different cultural interpretive frames in response to environmental cues. For example Hong, Chiu, and Kung (1997) primed westernized Hong Kong Chinese participants with pictures of either Chinese or American cultural icons. The American primes included pictures of the American flag, Capitol Building, and Marilyn Monroe; the Chinese primes included pictures of a dragon, and the Great Wall. In one study, participants were shown the picture of a lone fish swimming ahead of other fish. Participants who saw Chinese icons were more likely to see the lone fish as being chased, while those who saw American icons were more likely to see the lone fish as a leader. Thus, when primed with Chinese icons, participants were more likely to attribute behavior to external sources, such as a chasing school of fish. In contrast, when primed with American icons, participants were more likely to interpret the same behavior as driven by internal causes, such as a leading disposition. These experimentally invoked differences parallel findings in cross-cultural psychology regarding attributional differences between European Americans and East Asians (Choi, Nisbett, & Norenzayan, 1999; Morris & Peng, 1994).

Language, too, can serve as a cue for bi-cultural individuals, directing them to tune to another cultural mindset. For example, Ross, Xun, and Wilson (2002) gave Chinese-born Americans the same questionnaire either in Chinese or in English. Participants who received Chinese instructions and responded in Chinese produced more collectivistic self-statements, reported lower self-esteem, and agreed more often with Chinese cultural views such as ‘You should not feel good about your own achievements because there are many others who have achieved higher than you have.’ Again all these findings are consistent with previously reported differences between East Asians and European Americans (Heine, Lehman, Markus, & Kitayama, 1999; Markus & Kitayama, 1994). Bicultural individuals also describe their personality differently in response to a language prime, in ways paralleling differences between monolingual samples (Ramirez-Esparza, Gosling, Benet-Martinez, Potter, & Pennebaker, 2006). In short, the presence of contextual cues is capable of shifting cultural thought and behavior.

As the above examples illustrate, cultural priming often leads to assimilative responses such that participants act in accordance with the primed culture's ways. It is important to note however, that under certain circumstances primes may lead individuals to act against the culture's ways. Such contrast effects may be obtained, for example, when participants feel that they are not part of the primed culture. In one study, undergraduates primed with an elderly exemplar walked away faster, presumably because the evoked elderly stereotype motivated them to distinguish themselves from elderly people (Dijksterhuis et al., 1998). In another study, when Hong Kong Chinese received instructions in the official language of China (Mandarin), they disagreed more with traditional Chinese beliefs, compared with when they were instructed in Cantonese, which is the dialect spoken in Hong Kong (Bond & Cheung, 1984). The researchers' interpretation of these findings was that the Mainland Chinese language prime reminded participants of an identity they would like to distance themselves from, thereby leading to less enthusiasm for Chinese values. Similarly, unlike bicultural individuals with more integrated identities, bicultural individuals with conflicted identities have been shown to contrast away from cultural cues rather than assimilating to them (Benet-Martinez, Leu, Lee, & Morris, 2002; Mok & Morris, 2009). Finally, assimilation to a cultural prime is harder for people who endorse essentialist beliefs about race, such that they have more difficulty switching between different cultural frames (Chao, Chen, Roisman, & Hong, 2007). All these findings remind us that reactions to primes are not straightforward, passive and predetermined. Rather they are shaped in a context of meaning and motivation.

Implications for Socialization

We have briefly reviewed how the conceptualization of culture as a knowledge structure sheds light on the workings of bicultural minds. This conceptualization provides a general model for understanding socialization because the management of more than one identity is not limited to bicultural individuals. Everyone handles multiple identities based on nationality, race, work, religious practice, or marital status (Deaux, 1996; Markus & Hamedani, 2007; Roccas & Brewer, 2002). We navigate these identities by automatically accessing relevant knowledge structures in response to contextual cues; and participation in each of these groups is a 'mini' act of socialization. As Markus and Hamedani (2007) wrote, 'people...are never monocultural, because they are always interacting with multiple contexts.' Multiculturalism is the normal human experience (Goodenough, 1976) and the bicultural frame switching is not qualitatively different from the way 'monocultural' individuals routinely adjust to their surroundings.

Identities, like cultural knowledge structures are activated by the immediate context. Depending on the situation, different social identities will be salient and operative while other identities will be inhibited (Hugenberg & Bodenhausen, 2004; Turner, Oakes, Haslam & McGarty, 1994). The activation and inhibition of identities is critical to subsequent emotion, cognition and behavior. For example, in one study female Asian-American high school and college students performed better on a math tests when their ethnic identity was activated implicitly, but performed worse when their gender identity was activated, compared with a control group in which neither identity was activated (Shih, Pittinsky, & Ambady, 1999). In another study, black women participants expressed more favorable attitudes toward O. J. Simpson – a former African American football player who was charged with murdering his ex-wife–, when their ethnic identity was made salient compared with when their gender identity was made salient (Newman, Duff, Schnopp-Wyatt, Brock, & Hoffman, 1997). These findings demonstrate that

knowledge structures associated with identities work just like broader cultural knowledge structures.

In the rest of the paper, we elaborate on two implications of this social cognitive conceptualization of socialization, namely the role of the immediate environment as a socialization agent, and the importance of environmental design for optimal socialization outcomes. Before we delve into these implications though, we would like to note that the social cognitive perspective we employ is a complement, and not a rival, to existing work in developmental science, sociology and anthropology. In fact, insights from a social cognitive perspective resonate with the current human development literature which sees socialization as a dynamic and constructive process embedded in the practices of social interactions, physical and social environments and rituals (for reviews of contemporary work on culture and human development see Greenfield, Keller, Fuligni, & Maynard & Rogoff, 2003). The ideas we present extend and elaborate these ideas in social cognitive terms and specify the psychological mechanisms by which the present, local contexts affect socialization outcomes. Classical and current perspectives on human development focus on more molar aspects of the environment such as activities (Leontiev, 1981; Vygotsky, 1986), events (Dewey & Bentley, 1949), cultural practices (Goodnow, Miller, & Kessel, 1995; Rogoff & Angelillo, 2002), and ecological and institutional forces (LeVine, 1994; Super & Harkness, 1997; Weisner, 2002; Whiting & Edwards, 1988). Our emphasis, in contrast, is on the immediate context, and instantaneous, rather than long-term effects of these contexts. The unique contribution of a social cognitive perspective is a better understanding of the psychological processes by which the immediate context can transform socialization outcomes.

The role of the immediate context as a socialization agent

The reviewed research in cross-cultural and social psychology establishes that the immediate context determines the extent to which previously acquired knowledge structures will bear on current behavior. As illustrated by bicultural individuals, familiarity with cultural beliefs and values does not necessarily lead to their expression. A person may be capable of acting in a variety of ways, yet the immediate environment pushes the person toward certain behaviors.

What does that tell us about the process of socialization? If socialization is the process in which individuals are assisted in acting according to the group's ways, and if the immediate environment is capable of shifting behavior, then the immediate environment emerges as an essential factor in socialization. The present environment provides on line assistance to behavior production. This perspective shifts the spotlight from the long-term development of individual beliefs, skills and values to the continuous moment-to-moment construction of cognition and behavior in response to the dynamics of the here and now: The expression of someone's history of socialization (i.e., interactions with others, modeling by social actors, reinforcement of desired behaviors, etc.) is partly mediated through the present context. Emotions, cognitions and behavior are inextricably intertwined with this context and therefore understanding socialization outcomes requires that the current environment is considered alongside one's socialization history. In the following, we review the wealth of social psychological evidence pointing to the role of the immediate environment as an agent of socialization. We organize our discussion around two different types of environmental stimuli: the minimal social environment, and the material environment.

The minimal social context. The extant socialization literature extensively discusses the socializing role played by social actors such as parents, teachers, siblings, and peers (Dunn, 2006; Eccles-Parsons, Kaczala, & Meece, 1982; Grusec & Davidov, 2006; Harris, 1995). These social interactions are hugely important to the creation of behavioral repertoires. The social cognitive perspective in addition highlights how the social environment can function as a cue that activates knowledge structures, even in the absence of any interactions with social agents (for a review, see Bargh & Williams, 2006).

Research in social cognition has shown that minimal elements of the social environment may have consequences for social interactions. The presence of some people, their ethnicity, gender, clothing, or accent may activate related knowledge, in the absence of any exchange between these social actors. For example, priming participants with social groups may under certain circumstances lead them to behave in accordance with the stereotypes associated with those groups. In one study, participants who imagined a typical professor were more successful in a general knowledge task than those who imagined a typical secretary (Dijksterhuis & van Knippenberg, 1998). Activating representations of specific individuals rather than social categories may also evoke complementary responses (Andersen & Chen, 2002). Baldwin and Holmes (1987) asked female participants to visualize the faces of either two older family members or faces of two acquaintances from campus. Ten minutes later, ostensibly for a different study, the participants were asked to rate the enjoyableness of a passage that described a woman having a sexual dream about a man. Participants who had previously visualized family faces later reported enjoying the sexually permissive passage significantly less than those who had visualized their (presumably more permissive) friends from campus. As researchers have repeatedly shown, people will tune to social actors in their environment (see Smith & Semin, 2004 for a review). These findings show that this tuning may be achieved just by making those social actors salient in individual minds. As we will discuss below, this finding has important implications for how to design environments that facilitate desired socialization outcomes.

The material context. In this subsection, we review how the material context functions as an agent of socialization. Like the social context, the immediate material context factors into the socialization outcomes by evoking previously learned knowledge structures. Situation has been a key concept to social psychology since its early days (Reis, 2008). Yet, the situation has for the most part been defined by its social and not physical features. Therefore, the world depicted in the social psychology literature is largely devoid of material things. In their treatise of 'material priming' Kay, Wheeler, Bargh, and Ross (2004) point to the lack of attention to material things in social psychology and note how this contrasts with anthropology, which sees material things as critical to the understanding of social existence. The material environment is highly relevant for socialization, because physical and social environments are strongly interconnected. Human artifacts are socially constructed and full of social meaning (Csikszentmihalyi & Rochberg-Halton, 1981). As one sociologist noted, 'things, both natural and man-made, are appropriated into human culture in such a way that they represent the social relations of culture, standing in for other human beings, carrying values, ideas, and emotions' (Dant, 1999, p. 11, cited in Kay et al., 2004). Although most social artifacts lack the agency and responsivity of social actors, they are still infused with social meaning and their presence can shift cognition and behavior.

A striking example of the instrumentality of the material environment in the enactment of cultural roles comes from Norah Vincent (2006) whose book *Self-Made Man* describes what she went through when she dressed up as a man and experienced life from a male

vantage point. When she first started wearing the disguise, she was dressing in unisex jeans and shirts, but after she got an office job, she started to wear a suit. Vincent notes how wearing the suit effortlessly changed her gender-typed behaviors: 'For the first time in my journey as Ned, I felt male privilege descend on me like an insulating cape, and all the male behaviors I had until then been so consciously trying to produce for my role came to me suddenly without effort' (p. 187). Paralleling Vincent's experience with clothing, actors and actresses often remark that costumes and props are extremely effective in transporting them to their character's world and mind. In all these cases, the material objects seem to ease transition into new identities, functioning as agents of socialization.

Broader aspects of physical environments, such as architectural features may also affect how we feel, think and act. In his discussion of why people prefer some buildings to others and decorate interiors in certain ways, author Alain de Botton (2006) notes how architectural design serves as a self-socialization tool that shores up desired identities:

We depend on our surroundings obliquely to embody the moods and ideas we respect and then to remind us of them. We look to our buildings to hold us, like a kind of psychological mould, to a helpful vision of ourselves. We arrange around us material forms which communicate to us what we need – but are at constant risk of forgetting we need – within... We need our rooms to align us to desirable versions of ourselves and to keep alive the important, evanescent sides of us. (p. 107)

Psychological research supports this idea that immediate material environments can shift thinking and behavior in line with associated ideas and identities. People who are exposed to pictures of business-related objects such as briefcases and boardroom tables have higher cognitive accessibility of the competition concept and perceive an ambiguous social relationship as less cooperative. They also retain more money for themselves in an ultimatum game (Kay et al., 2004). Similarly, the presence of guns makes people act in a more aggressive manner (Anderson, Benjamin, & Bartholow, 1998; Berkowitz & LePage, 1967), and exposure to a sports drink makes people persist longer on a physical task compared with exposure to spring water (R. Friedman & Elliot, 2008). These findings clearly illustrate the role of material objects as aides in the dynamic construction of behavior.

Not only single objects, but broader physical environments, such as buildings and landscapes can also operate as socialization agents. In one study, people who saw the picture of a library and were told they had to visit a library after the experiment were quicker to identify words related to silence, and spoke less loudly compared with participants who saw the picture of a railway station (Aarts & Dijksterhuis, 2003). This study indicates that normative behavior can be facilitated by exposure to an environment, when it is also relevant to future behavior. Another remarkable study showed that voting behavior depends on the physical environment: In the Arizona 2000 general election, a higher percentage of people who voted in schools supported a proposition to raise sales tax to fund education, compared with those who voted in other locations (Berger, Meredith, & Wheeler, 2008). These results persist even after controlling for demographics, political opinions and the proximity of voters' homes to schools, and have been replicated experimentally. These findings show that what we believe in is to some extent also determined by which type of a building we are in, and just being in certain environments will influence how we act.

In short, the evidence strongly suggests that behavior will shift in line with the current context and thus the socialization outcomes are dependent on the input from the present local environment. Lab studies often study the effects of priming on a single individual. However, outside the lab, effects of environmental cues may be amplified because they

reverberate in social contexts: Artifacts elicit particular modes of cognition, action and interaction not only from the target individual but also from the social companions such as peers, parents and teachers, who in turn affect each other. For example, dolls and trucks socialize not only young children, but also invite adults who interact with those children to act in accordance with the associations and affordances of these gender-typed artifacts. In the presence of others, children may exhibit more gender-stereotypical behavior, not only in response to the artifacts themselves, but also to other social players' expectations and behaviors that have been affected by the same artifacts. We thus can surmise that when Norah Vincent wore a suit in her journey as a man, her socialization into the male role was facilitated not only by her own implicit gender knowledge but also by others' overt behaviors in response to the business suit (see Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997, on collective construction of the self and social relationships).

People are not only attuned to others' overt behaviors, but also to information implied by their material settings. The decisions that shape a physical environment involve selection and prioritization; therefore they signal what is valued, what is relevant and what is important for those who shaped that setting. Themes that dominate one's life can be found in one's material surroundings. For example, a crucifix on the living room wall signals religiosity, full bookshelves signal erudition, and artifacts from around the world signal a cosmopolitan worldview. People can tell with some accuracy another person's personality characteristics by taking a look at the person's dorm room (Gosling, 2008). This meta-communication via the environment may change attitudes, particularly when the cues are coming from those we want to affiliate with. Consistent with this hypothesis, Sinclair, Lowery, Hardin, and Colangelo (2005) have found that when an experimenter wore a t-shirt expressing egalitarian attitudes, participants showed reduced implicit prejudice, but only when they liked the experimenter. These findings indicate that the material primes are refracted through a social prism.

So far, we have looked at examples of how the minimal social environment and the physical context influence real-time behavior outcomes. If behavior is partly shaped by the immediate context, then socialization efforts should be targeted at structuring the context to trigger desired outcomes. People can socialize each other not only through direct instruction or modeling, but also indirectly by arranging the environment. This type of contextual socialization has the advantage that it does not require the time or attention of a social actor. Once arranged, the environment may be a cost-effective socialization tool. We now turn our discussion to environment design for optimal socialization effects.

Creation of environments that activate desired knowledge structures

In the preceding section, we have reviewed how the current local environment serves as a bridge between past socialization and present behavior. Any previous learning will only be applicable to current behavior to the extent that the learned knowledge structure is active in the mind. This idea has one important implication for socialization practices: If environmental cues are capable of activating knowledge structures or increasing the possibility that they will be activated in the future, then the arrangement of the environment is critical to the elicitation of desired behavior. Socialization efforts therefore should involve the creation and configuration of environments in ways that will optimize socialization outcomes.

If the environment is conceptualized as a socialization agent, various cultural cues that are so common in schools, churches, and homes can be regarded as more than reflections

of cultural beliefs and values. These cues serve the function of activating cultural knowledge structures. As a result, the activated knowledge is more likely to bear on real-time behavior, and the knowledge structure's probability of future activation is increased since recency and frequency of past activation predict future knowledge accessibility. Moreover, rituals which are a staple element of socialization can be reinterpreted as a configuration of primes for maximum effect. In the following, we will review socialization practices from around the world in light of these ideas.

Political socialization often relies on the power of artifacts. Sculptures, coins, banknotes and posters are used to make iconic political figures highly visible. For example, until recently, a picture of Atatürk, the founder of modern Turkey, was by law required in every Turkish classroom and government office. From a social cognitive perspective, these pictures are not only a reflection of Turkish values, but they are also an important reminder, or a 'reactivator,' of the relevant Turkish belief systems. As such, they create the potential for immediate cognitive and behavioral consequences and also increase likelihood of future activation. Posters may serve a similar function. In his classic work *Two worlds of childhood: US and USSR*, Bronfenbrenner (1970) discussed the prevalence of posters in USSR schools. These posters encouraged children to help their parents at home, to keep their rooms in order, to take care of their clothes and footwear, and to be great 'pioneers.' In countries with a significant Confucian heritage (e.g., Japan, China, Korea, Singapore, and Malaysia) posters in public places promote civic and moral values. In Japan, banners on highways urge drivers to 'drive with a smile and good manners' and the Malaysian passenger trains have framed signs that say 'have a safe and pleasant journey, in the spirit of a caring society' (Reid, 1999). Again, we interpret these materials as 'primes'; they are powerful means of reactivating mental representations. They not only teach what is valued and expected, they also increase the chances that the lesson will bear on current behavior.

Appropriate environmental design also requires the elimination of some artifacts, which may have undesired associations, messages or affordances. Just think of the range of the artifacts that would be absurdly out of place in a religious temple: food that does not serve ritualistic purpose, sexually suggestive clothing, laptops to keep one busy while waiting for the service, etc. Religious temples should deflect intrusions of the mundane and evoke a spiritual frame of mind. In a church, therefore, it is not only the presence of divine images, religious music, the altar and the crucifix that elevates the mind into the realm of the sublime, but also the absence of anything that might distract from this realm and remind people of their materialist, corporal, and individualistic selves. From a social cognitive perspective, the physical environment is a constellation of primes and effective socialization requires that these primes are assembled with care.

A social cognitive view also offers insight into the role of rituals in socialization. Socialization researchers have long recognized the importance of rituals as socialization practices (Elkin, 1960; Mayer, 1970). Rituals are ways of organizing experience by prescribing a specific material/symbolic environment and strictly defining appropriate behavior. From a social cognitive perspective, one can conceptualize rituals as means of instantiating particular mindsets and activating desired constructs. Often, as a ritual unfolds, both artifacts and conceptual elements are used to create a complex pattern of primes. These primes help to create the contexts in which thinking and behavior is molded. For example at the beginning of each school day, Japanese children rise and bow, saying 'sensei onegai shimasu' or 'Teacher, please do us the favor [of teaching us]' (White, 1987, p. 82). This, we believe, is not only a display of respect and gratitude for the teacher, but also an effective way of activating those values in children's minds every single day. It is a formalized

means of actively maintaining cultural values such as respect and gratitude for the teacher. It is conceivable that children who greet their teacher with these words not only learn that respect for learning and teachers is a basic norm, but this norm will also bear on their classroom behavior after they have participated in the ritual.

Prayer is a common daily ritual that millions of believers around the world engage in. One function of prayer is increasing the salience of religious norms and values in individual minds. Recall the study by Baldwin and Holmes (1987) in which visualizing faces from one's family made participants report less enjoyment of sexually permissive materials. Mental engagement with the divine through prayer may have the same effect of reducing subsequent accessibility and desirability of cognitions and actions that clash with one's divinity. Supporting this idea, participants who were primed with religious words, such as God and prayer, were later slower to recognize words associated with temptations, such as sex and drugs (Fishbach et al., 2003). Activation of the God concept is also associated with prosocial behavior (Pichon et al., 2007; Shariff & Norenzayan, 2007). Given these findings, it is not surprising that religions institutionalize prayer. Islam, for example, prescribes its believers to engage in ritualistic prayer five times a day – at dawn, noon, afternoon, sunset and nightfall. Moreover, in Muslim communities, the call to prayer that is recited from mosques to summon believers to prayer is an unmistakable reminder of religious schemata. The call to prayer sums up the teachings of Islam and is a regular public reminder of religious values that fills the streets five times a day. The prayer rituals impose a structure on the daily lives of many Muslims and social cognitive principles explain why they should make effective socialization tools. The widely recognized role of rituals in socialization may thus also be understood as applications of sound social cognitive principles.

In sum, the environment has the capacity to channel behavior toward a narrower set of options such that activated knowledge structures make some possibilities loom larger and some smaller. In order to get the most out of the immediate context, employers, teachers, parents, preachers and scout leaders need to activate the relevant schemata in the minds of those they are socializing. Optimally designed social environments take advantage of the cognitive mechanisms by which the environment influences behavior.

Conclusion

Socialization is the process by which groups help individuals become a group member. In this paper, we have outlined two implications of social cognitive principles for this process. Defining socialization as the acquisition, maintenance, and application of knowledge structures specific to a group, the immediate environment emerges as a critical factor in socialization. The immediate environment serves the maintenance and application of knowledge structures by increasing their current and future accessibility. This implies that socialization efforts should include not only teaching and modeling, but also modifying the environment to trigger desired cognition and behavior.

Although priming effects are not always straightforward and unknowns remain about the potential and limits of such efforts, environmental structuring is a promising focal point for socialization practices and interventions. Our review bridges social cognition to the practices of socialization which are customarily treated at higher levels of analysis. Keeping with the fundamental tenet of social psychology, our analysis reveals yet another sense in which the situation matters.

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Short Biographies

Selin Kesebir's research focuses on processes that make it possible for individuals to create well-functioning groups and organizations. These processes include morality, socialization and emotional synchrony.

David Uttal's research interests are in cognitive development, school achievement, and culture. He has authored articles and book chapters on each of these topics. This paper represents a return to the kind of research he conducted earlier, with Harold Stevenson, on cultural influences on achievement.

Wendi Gardner's research interests include social aspects of the self, and particularly the centrality of social inclusion to the self.

Endnote

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References

- Aarts, H., & Dijksterhuis, A. (2003). The silence of the library: Environmental control over social behavior. *Journal of Personality and Social Psychology*, **84**, 18–28.
- Andersen, S. M., & Chen, S. (2002). The relational self: An interpersonal social-cognitive theory. *Psychological Review*, **109**, 619–645.
- Anderson, C. A., Benjamin, A. J. Jr, & Bartholow, B. D. (1998). Does the gun pull the trigger? Automatic priming effects of weapon pictures and weapon names. *Psychological Science*, **9**, 308–314.
- Baldwin, M. W., & Holmes, J. G. (1987). Salient private audiences and awareness of the self. *Journal of Personality and Social Psychology*, **52**, 1087–1098.
- Bargh, J. A. (2006). What have we been priming all these years? On the development, mechanisms, and ecology of nonconscious social behavior. *European Journal of Social Psychology*, **36**, 147–168.
- Bargh, J. A., & Chartrand, T. L. (2000). The mind in the middle: A practical guide to priming and automaticity research. In H. T. Reis & C. M. Judd (Eds.), *Handbook of Research Methods in Social and Personality Psychology* (pp. 253–285). New York: Cambridge University Press.
- Bargh, J. A., & Williams, E. L. (2006). The automaticity of social life. *Current Directions in Psychological Science*, **15**, 1–4.
- Benet-Martinez, V., Leu, J., Lee, F., & Morris, M. W. (2002). Negotiating biculturalism: Cultural frame switching in biculturals with oppositional versus compatible cultural identities. *Journal of Cross-Cultural Psychology*, **33**, 492–516.
- Berger, J., Meredith, M., & Wheeler, S. C. (2008). Cotextual priming: Where people vote affects how they vote. *Proceedings of the National Academy of Sciences*, **105**, 8846–8849.
- Berkowitz, L., & LePage, A. (1967). Weapons as aggression-eliciting stimuli. *Journal of Personality and Social Psychology*, **7**, 202–207.
- Bond, M. H., & Cheung, M.-K. (1984). Experimenter language choice and ethnic affirmation by Chinese trilinguals in Hong Kong. *International Journal of Intercultural Relations*, **8**, 347–356.
- de Botton, A. (2006). *The Architecture of Happiness*. New York: Pantheon Books.
- Brezinka, W., & Brice, J. S. (1994). *Socialization and Education: Essays in Conceptual Criticism*. Westport, CT: Greenwood Press.
- Bronfenbrenner, U. (1970). *Two Worlds of Childhood: U.S. and U.S.S.R.* New York: Russell Sage Foundation.
- Bruner, J. S. (1957). On perceptual readiness. *Psychological Review*, **64**, 123–152.
- Carlston, D. E., & Smith, E. R. (1996). Principles of mental representation. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social Psychology: Handbook of Basic Principles* (pp. 184–210). New York: Guilford Press.
- Chao, M. M., Chen, J., Roisman, G. I., & Hong, Y. (2007). Essentializing race: Implications for bicultural individuals' cognition and affect. *Psychological Science*, **18**, 341–348.
- Chiu, C.-Y., & Hong, Y.-Y. (2007). Cultural processes: Basic principles. In E. T. Higgins & A. E. Kruglanski (Eds.), *Social Psychology: Handbook of Basic Principles* (pp. 785–804). New York: Guilford.

- Choi, I., Nisbett, R. E., & Norenzayan, A. (1999). Causal attribution across cultures: Variation and universality. *Psychological Bulletin*, **125**, 47–63.
- Collins, A. M., & Quillian, M. R. (1969). Retrieval time from semantic memory. *Journal of Verbal Learning and Verbal Behavior*, **8**, 240–247.
- Csikszentmihalyi, M., & Rochberg-Halton, E. (1981). *The Meaning of Things: Domestic Symbols and the Self*. Cambridge: Cambridge University Press.
- Dant, T. (1999). *Material Culture in the Social World: Values, Activities, Lifestyles*. Philadelphia, PA: Open University Press.
- Deaux, K. (1996). Social identification. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social Psychology: Handbook of Basic Principles* (pp. 777–798). New York: Guilford.
- Dewey, J., & Bentley, A. F. (1949). *Knowing and the Known*. Boston, MA: Beacon Press.
- Dijksterhuis, A., Spears, R., Postmes, T., Stapel, D. A., Koomen, W., van Knippenberg, A., et al. (1998). Seeing one thing and doing another: Contrast effects in automatic behavior. *Journal of Personality and Social Psychology*, **75**, 862–871.
- Dijksterhuis, A., & van Knippenberg, A. (1998). The relation between perception and behavior, or how to win a game of trivial pursuit. *Journal of Personality and Social Psychology*, **74**, 865–877.
- Dunn, J. (2006). Siblings and socialization. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of Socialization* (pp. 309–327). New York: Guilford Press.
- Eccles-Parsons, J. E., Kaczala, C. M., & Meece, J. I. (1982). Socialization of achievement attitudes and beliefs: Classroom influences. *Child Development*, **53**, 322–339.
- Elkin, F. (1960). *The Child and Society: The Process of Socialization*. New York: Random House.
- Fishbach, A., Friedman, R. S., & Kruglanski, A. W. (2003). Leading us not unto temptation: Momentary allurements elicit overriding goal activation. *Journal of Personality and Social Psychology*, **84**, 296–309.
- Friedman, R., & Elliot, A. J. (2008). Exploring the influence of sports drink exposure on physical endurance. *Psychology of Sports and Exercise*, **9**, 749–759.
- Goodenough, W. H. (1976). Multiculturalism as the normal human experience. *Anthropology and Education Quarterly*, **7**, 4–7.
- Goodnow, J. J., Miller, P. J., & Kessel, F. S. (1995). *Cultural Practices as Contexts for Development*. San Francisco, CA: Jossey-Bass.
- Gosling, S. D. (2008). *Snoop: What your stuff says about you*. New York: Basic Books.
- Greenfield, P. M., Keller, H., Fuligni, A., & Maynard, A. (2003). Cultural pathways through universal development. *Annual Review of Psychology*, **54**, 461–490.
- Grusec, J. E., & Davidov, D. (2006). Socialization in the family: The role of parents. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of Socialization* (pp. 284–308). New York: Guilford Press.
- Grusec, J. E., & Hastings, P. D. (Eds.) (2006). *Handbook of socialization*. New York: Guilford Press.
- Harris, J. R. (1995). Where is the child's environment? A group socialization theory of development. *Psychological Review*, **102**, 458–489.
- Heine, S. J., Lehman, D. R., Markus, H. R., & Kitayama, S. (1999). Is there a universal need for positive self-regard? *Psychological Review*, **106**, 766–794.
- Higgins, E. T. (1996). Knowledge activation: Accessibility, applicability and salience. In E. T. Higgins & A. W. Kruglanski (Eds.), *Social Psychology: Handbook of Basic Principles* (pp. 133–168). New York: Guilford Press.
- Higgins, E. T., & Brendl, C. M. (1995). Accessibility and applicability: Some activation rules influencing judgment. *Journal of Experimental Social Psychology*, **31**, 218–243.
- Hong, Y.-Y., & Chiu, C.-Y. (2001). Toward a paradigm shift: From cross-cultural differences in social cognition to social-cognitive mediation of cultural differences. *Social Cognition*, **19**, 181–196.
- Hong, Y.-Y., Chiu, C.-Y., & Kung, T. M. (1997). Bringing culture out in front: Effects of cultural meaning system activation on social cognition. In K. Leung, Y. Kashima, U. Kim & S. Yamaguchi (Eds.), *Progress in Asian Social Psychology* (Vol. 1, pp. 135–146). Singapore: Wiley.
- Hong, Y.-Y., Morris, M. W., Chiu, C.-Y., & Benet-Martinez, V. (2000). Multicultural minds – A dynamic constructive approach to culture and cognition. *American Psychologist*, **55**, 709–720.
- Hugenberg, K., & Bodenhausen, G. V. (2004). Category membership moderates the inhibition of social identities. *Journal of Experimental Social Psychology*, **40**, 233–238.
- Kay, A. C., Wheeler, S. C., Bargh, J. A., & Ross, L. (2004). Material priming: The influence of mundane physical objects on situational construal and competitive behavioral choice. *Organizational Behavior and Human Decision Processes*, **95**, 83–96.
- Kitayama, S., Markus, H. R., Matsumoto, H., & Norasakkunkit, V. (1997). Individual and collective processes in the construction of the self: Self-enhancement in the United States and self-criticism in Japan. *Journal of Personality and Social Psychology*, **72**, 1245–1267.
- Lehman, D. R., Chiu, C.-Y., & Schaller, M. (2004). Psychology and culture. *Annual Review of Psychology*, **55**, 689–714.
- Leontiev, A. (1981). *Problems of the Development of Mind* (Trans. M. Kopylova). Moscow: Progress.
- LeVine, R. A. (1994). *Child Care and Culture: Lessons From Africa*. New York, NY: Cambridge University Press.

- Lyons, A., & Kashima, Y. (2003). How are stereotypes maintained through communication? The influence of stereotype sharedness. *Journal of Personality and Social Psychology*, **85**, 989–1005.
- Macrae, C. N., & Bodenhausen, G. V. (2000). Social cognition: Thinking categorically about others. *Annual Review of Psychology*, **51**, 93–120.
- Macrae, C. N., Bodenhausen, G. V., Milne, A. B., Castelli, L., Schloerscheidt, A. M., & Greco, S. (1998). On activating exemplars. *Journal of Experimental Social Psychology*, **34**, 330–354.
- Markus, H. R., & Hamedani, M. Y. G. (2007). Sociocultural psychology: The dynamic interdependence among self systems and social systems. In S. Kitayama & D. Cohen (Eds.), *Handbook of Cultural Psychology* (pp. 3–39). New York: The Guilford Press.
- Markus, H. R., & Kitayama, S. (1994). The cultural construction of self and emotion: Implications for social behavior. In S. Kitayama & H. R. Markus (Eds.), *Emotion and Culture: Empirical Studies of Mutual Influence* (pp. 89–130). Washington, DC: American Psychological Association.
- Mayer, P. (Ed.). (1970). *Socialization: The Approach From Social Anthropology*. London: Tavistock.
- Mok, A., & Morris, M. W. (2009). Cultural chameleons and iconoclasts: Assimilation and reactance to cultural cues in biculturals' expressed personalities as a function of identity conflict. *Journal of Experimental Social Psychology*, **45**, 884–889.
- Morling, B., & Lamoreaux, M. (2008). Measuring culture outside the head: A meta-analysis of individualism–collectivism in cultural products. *Personality and Social Psychology Review*, **12**, 199–221.
- Morris, M. W., & Peng, K. (1994). Culture and cause: American and Chinese attributions for social and physical events. *Journal of Personality and Social Psychology*, **67**, 949–971.
- Newman, L. S., Duff, K., Schnopp-Wyatt, N., Brock, B., & Hoffman, Y. (1997). Reactions to the O. J. Simpson verdict: 'Mindless tribalism' or motivated inference processes? *Journal of Social Issues*, **53**, 547–562.
- Oyserman, D., & Lee, S. W. (2008). Does culture influence what and how we think? Effects of priming individualism and collectivism. *Psychological Bulletin*, **134**, 311–342.
- Peng, K., & Knowles, E. D. (2003). Culture, education, and the attribution of physical causality. *Personality and Social Psychology Bulletin*, **29**, 1272–1284.
- Pichon, I., Boccato, G., & Saroglou, V. (2007). Nonconscious influences of religion on prosociality: A priming study. *European Journal of Social Psychology*, **37**, 1032–1045.
- Ramirez-Esparza, N., Gosling, S. D., Benet-Martinez, V., Potter, J. P., & Pennebaker, J. W. (2006). Do bilinguals have two personalities? A special case of cultural frame switching. *Journal of Research in Personality*, **40**, 99–120.
- Reid, T. R. (1999). *Confucius Lives Next Door*. New York: Vintage Books.
- Reis, H. T. (2008). Reinvigorating the concept of situation in social psychology. *Personality and Social Psychology Review*, **12**, 311–329.
- Roccas, S., & Brewer, M. B. (2002). Social identity complexity. *Personality and Social Psychology Review*, **6**, 88–106.
- Rogoff, B. (2003). *The Cultural Nature of Human Development*. New York: Oxford University Press.
- Rogoff, B., & Angelillo, C. (2002). Investigating the coordinated functioning of multifaceted cultural practices in human development. *Human Development*, **45**, 211–225.
- Ross, M., Xun, W. Q. E., & Wilson, A. E. (2002). Language and the bicultural self. *Personality and Social Psychology Bulletin*, **28**, 1040–1050.
- Sechrist, G. B., & Stangor, C. (2001). Perceived consensus influences intergroup behavior and stereotype accessibility. *Journal of Personality and Social Psychology*, **2**, 645–654.
- Shariff, A. F., & Norenzayan, A. (2007). God is watching you: Priming God concepts increases prosocial behavior in an anonymous economic game. *Psychological Science*, **18**, 803–809.
- Shih, M., Pittinsky, T. L., & Ambady, N. (1999). Stereotype susceptibility: Identity salience and shifts in quantitative performance. *Psychological Science*, **10**, 81–84.
- Sinclair, S., Lowery, B., Hardin, C., & Colangelo, A. (2005). Social tuning of automatic racial attitudes: The role of affiliative motivation. *Journal of Personality and Social Psychology*, **89**, 583–592.
- Smith, E. R. (1998). Mental representations and memory. In D. T. Gilbert, S. T. Fiske & G. Lindzey (Eds.), *Handbook of Social Psychology* (4th edn, Vol. 1, pp. 391–445). New York: McGraw-Hill.
- Smith, E. R., & Semin, G. R. (2004). Socially situated cognition: Cognition in its social context. *Advances in Experimental Social Psychology*, **36**, 53–117.
- Super, C. M., & Harkness, S. (1997). The cultural structuring of child development. In J. W. Berry, P. R. Dasen & T. S. Saraswathi (Eds.), *Handbook of Cross-Cultural Psychology* (2nd edn, Vol. 2, pp. 3–29). Boston, MA: Allyn&Bacon.
- Turner, J. P., Oakes, S., Haslam, A., & McGarty, C. (1994). Self and collective: cognition and social context. *Personality and Social Psychology Bulletin*, **20**, 454–463.
- Verkuyten, M. and Pouliasi, K. (2002). Biculturalism among older children: Cultural frame switching, attributions, self-identification, and attitudes. *Journal of Cross-Cultural Psychology*, **33**, 596–609.
- Vincent, N. (2006). *Self-Made man: One Woman's Journey Into Manhood and Back Again*. New York, NY: Viking Penguin.
- Vygotsky, L. S. (1986). *Thought and Language* (A. Kozulin, Ed. and Trans.). Cambridge, MA: MIT Press.

- Weisner, T. S. (2002). Ecocultural understanding of children's developmental pathways. *Human Development*, **45**, 275–281.
- White, M. I. (1987). *The Japanese educational challenge: a commitment to children*. New York, NY: Free Press.
- Whiting, B. B., & Edwards, C. P. (1988). *Children of Different Worlds: The Formation of Social Behavior*. Cambridge, MA: Harvard University Press.
- Wong, R. Y., & Hong, Y. (2005). Dynamic influences of culture on cooperation in the prisoner's dilemma. *Psychological Science*, **16**, 429–434.
- Wyer, R. S. (2007). Principles of mental representation. In A. Kruglanski & E. T. Higgins (Eds.). *Social Psychology: Handbook of Basic Principles* (2nd edn, pp. 285–307). New York: Guilford.