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CULTURAL COMPETENCE—TACIT, YET FUNDAMENTAL: SELF, SOCIAL RELATIONS, AND COGNITION IN THE UNITED STATES AND JAPAN

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There are many cultural competences. Some are very explicit and obvious: For example, using chopsticks is a special skill quite well suited for some cuisines but not for others. Less obviously, there also exist myriad other competences, both social and nonsocial, that are highly tacit (Polyani, 1957). People rarely recognize these competences—in fact, it is not until a surge of careful cross-cultural experimental studies on self, social relations, and cognition in the past decade (e.g., Fiske, Kitayama, Markus, & Nisbett, 1998; Heine, Lehman, Markus, & Kitayama, 1999; Markus & Kitayama, 1991; Nisbett, Peng, Choi, & Norenzayan, 2001) that this point was brought to the attention of many researchers in psychology, anthropology, and other related disciplines (see Gay & Cole, 1967; Rivers, 1901; Titchener, 1916; Witkin, 1967, for earlier work on the issue). Whereas explicit practices, customs, and imperatives of culture can be intentionally followed, imitated, and sometimes resisted, implicit skills, abilities, and competences are much more difficult to identify, let alone to modify or improve. Yet, they are fundamen-

tal prerequisites for successfully engaging in and effectively carrying out culturally sanctioned modes of being human, relating to others, and perceiving and thinking about the social and nonsocial worlds. In the present chapter, our primary focus is on these tacit competences for cultural adaptation.

In examining tacit cultural competences, we draw on the cultural psychological literature. Cultural psychology is an interdisciplinary study of the ways in which cultural practices and meanings and psychological processes and structures relate to each other (Bruner, 1990; Cole, 1996; Fiske et al., 1998; Shore, 1996; Shweder, 1991). As argued by some theorists in anthropology (Boyd & Richardson, 1985; Durham, 1991), economics (Aoki, 2001), and psychology (Kitayama & Markus, 1999), culture and the psyche are likely to coevolve to form a mutually reinforcing state of equilibrium. Relatively recent research in this and adjacent topics has covered many domains, ranging from in-depth ethnographic descriptions of sociocultural activities of daily life (Cole, 1996), experimental studies on self (Markus & Kitayama, 1991), emotion (Kitayama, Karasawa, & Mesquita, in press), and cognition (Nisbett et al., 2001), to systemic analyses of coevolutionary processes (Aoki, 2001; Boyd & Richardson, 1985; Durham, 1991). Altogether, these studies have demonstrated the mutual constitutive relationship between culture and psychological processes. Thus, culture is best understood as being constantly motivated, directed, and co-opted by the collective functioning of individual psychological processes; at the same time, psychological processes are also best understood as embedded, reinforced, and constrained by the structuralized field of culture.

During the course of the past two decades, the literature has demonstrated that very different forms of self are constructed across different cultures (Markus & Kitayama, 1991; Sampson, 1988; Shweder & Bourne, 1984; Triandis, 1989). Many theorists have contrasted the notion of the autonomous, independent self, which is widespread in the West, with the notion of the relational, interdependent self of the East. Moreover, these selves are fostered, encouraged, and maintained by a variety of cultural practices and lay theories. For example, whereas the independent, autonomous, egocentric self is associated with the practices of free choice, market economy, self-expression, and associated ideas and folk beliefs, the interdependent, embedded, sociocentric self is associated with cultural practices of conformity and adjustment, obligation to others, and associated folk beliefs and cultural icons. These respective sets of cultural practices and meanings constitute very different fields for action—the field called *behavioral environment* by Hallowell (1955) and *action field* by Lewin (1936). Because psychological functions are often inseparable from their behavioral environment, it is often more illuminating to analyze these divergent selves as embedded in the specific behavioral environment of culture. The notion of selves-in-actual-behavioral-environment is close to what Bourdieu (1977) meant by his notions of *habitus* and *modus operandi*. We refer to it as *modes of being* (Markus & Kitayama, in press).

Although the distinction between the two notions of selves or the two corresponding modes of being might strike one as an oversimplification, it has served a reasonable heuristic function for generating testable hypotheses. Moreover, many theorists have been quite explicit in cautioning that these selves or associated modes of being should be seen as prototypes or models (Shweder & Sullivan, 1993). That is to say, they are not designed to describe each and every individual engaged within a given culture. The prototypes are used to summarize the nature of ideational resources distributed, often quite unevenly, within and over any given geographic region or historical time (Adams & Markus, 2001; Kitayama, 2002). Regardless of the specific focus of any given research, the hypothesis regarding the two forms of the self—or more fine-grained varieties—is not designed to reduce individuals to the corresponding types of personality, although allegations to the contrary have occasionally been made (e.g., Takano & Osaka, 1999). Fortunately, in recent years, there have been an increasing number of studies that explicitly examine regional and subgroup differences (Nisbett & Cohen, 1996; Plaut, Markus, & Lachman, 2002; Sampson, 2000; Sanchez-Burks, 2002).

In distilling the most significant contributions from this emerging literature, two points stand out. First, the two forms of self that are postulated to be more or less dominant across different cultures do not exist in a social vacuum. To the contrary, the different forms of self are assumed to be both antecedents and consequences of correspondingly divergent forms of social relationship, institutionalized practices, and publicly shared meanings (Kitayama & Markus, 1999, 2000). These selves are grounded significantly in a number of biologically prepared psychological tendencies or epigenetic rules for psychological functions that, as a whole, define the human species (Rozin & Schull, 1988; Seligman, 1970; Wilson, 1999). Yet, they are also culturally and collectively constructed. That is, they are given specific shapes and functions, in that they are animated and mobilized by means of a number of sociocultural artifacts, practices, meanings, tools, and devices. As suggested by Tomasello (1999) and other thinkers of culture and evolution (e.g., Boyd & Richardson, 1985; Durham, 1991; Sperber, 1985, 1996), humans have evolved to attain and use culture—its symbolic resources in particular—for the purpose of biological adaptation. Hence, to analyze and understand the forms and functions of each self, researchers need to attend to the self's surroundings, especially to the social relations of which it is part and other sociocultural practices and systems of socially shared meanings.

The second significant contribution of the cultural psychological literature concerns questions about the fundamental building blocks of the human mind. For the most part, cognitive processes traditionally have been conceptualized as basic building blocks of the mind that are used in managing all forms of self and social relations. According to this analysis, basic cognitions are held to be constant and little influenced, if at all, by the social or the cultural. Yet if psychological processes are designed to be shaped through

culture, cognitive processes may also be shaped in the same way. If so, the boundary between domains of basic cognition and more social domains such as self and social relationships may prove to be much fuzzier than has thus far been assumed in psychology. Indeed, some significant parameters of basic cognitive processes may be significantly modified by practices, strategies, and routines that are brought to bear on the construction of both self and social relationships. Hence, even some of the very basic cognitive competences may be best seen as part and parcel of the socioculturally constituted modes of self and social relationship. The two are mutually constitutive.

In what follows, we first review evidence pertaining to the cross-culturally divergent forms of the self and social relations. Next, we move on to review recent evidence on cultural variations in cognition. The cultural competences suggested throughout this chapter are quite tacit and often automatic and spontaneous. Moreover, they are quite systematic. In fact, we point out that they can be summarized in terms of a relatively simple parameter of allocating differential weights to "object" or "context." In the closing section of this chapter, we indicate directions of future research by raising a number of questions regarding the malleability, variability, and origins of this particular dimension that cut across many cultural competences.

SELF AND SOCIAL RELATIONS IN DIFFERENT CULTURAL CONTEXTS

In this section, we review evidence supporting the divergent *independent* and *interdependent* forms of the self and social relations across cultures. We illuminate divergent social worlds, selves, and social relations that are held in place in different cultural contexts. First we discuss the concepts of independence and interdependence and then discuss the acts of self-enhancement and self-criticism and influence and adjustment in relation to these concepts.

Independence and Interdependence

Markus and Kitayama (1991, 1998; Kitayama, Markus, & Matsumoto, 1995; Kitayama & Markus, 1999) have proposed that in North American middle-class culture, the idea of the self as independent is quite widespread and often taken for granted. This and other related ideas, such as individual choice, freedom, self-expression, and the notion of market as the prototype for social interactions in general, are also involved in creating and maintaining myriad practices and customs that permeate this culture. Accordingly, the personal is defined as relationship-independent because the personal is conceptualized prior to the social and, furthermore, it is imagined to be bounded and separate from the latter. Obviously, social relations are also

important; but they are often structured in terms of each person's choice to enter into such relations. In fact, social relations themselves are often grounded in the independence of each participating individual. These cultural practices and meanings as a whole reinforce and maintain the personal self. Although many elements of the independent mode of being can be found across cultures, they are assumed to be especially widespread, both elaborated and institutionalized, in many domains of social life of North American cultures.

In contrast, East Asian cultures are committed to the contrasting idea of the self as interdependent (Markus & Kitayama, 1991). Ideas such as interpersonal or societal obligations, hierarchical social order, and interpersonal adjustment and fitting-in are involved in creating and maintaining many central practices and customs that permeate these cultures. Obviously, personal selves are also important and often just as salient as social obligations and duties. However, the personal is largely defined vis-à-vis the expectations and demands of the surroundings. In some cases, personal desires and needs are more or less congruous with social expectations, as may be the case in identification and spontaneous role obligation; whereas in some other cases they may go against one another, as may be true in many cases of youth rebellion against authority figures. Whichever form it might take, the personal in these cultural contexts may then be best conceptualized as highly context- or relationship-dependent and, thus, fully embedded and connected.

Many elements of the interdependent mode are widely distributed across many cultures and, in nearly all of them, some domains such as intimate relationships or family may lend themselves to interdependence. At the same time, many domains of social life can be construed and constructed on the foundation of either one or even both of the two models of the self. In these cases, interdependence may be more instrumental in organizing these domains in some cultures (e.g., East Asian) than in others (e.g., North American).

Both the independent and the interdependent modes of being can be analyzed at a variety of different levels. Certain characteristic psychological tendencies are embedded in corresponding styles of interpersonal interactions, which, in turn, are included in customs and institutions at larger community and society levels. By way of illuminating the multifaceted nature of the two modes of being, we focus on two specific areas of research. First, one personal-level characteristic of the two modes of being that has been carefully studied in the current literature is a set of biases in perceiving and judging the self. Whereas self-enhancing tendencies are typically associated with the independent mode of being, self-critical tendencies are often associated with the interdependent mode of being. Second, these personal-level biases in self-perception are associated with a set of interpersonal-level processes. Whereas independent, self-enhancing selves form social relations by seeking to influence one another, interdependent, self-critical selves often do so by adjusting themselves to one another.

Self-Enhancement and Self-Criticism

In the independent mode of being, internal attributes of the self such as motives, abilities, talents, and personality traits are assumed to be central to defining the nature of the self. Construing the self as highly competent, resourceful, and thus, autonomous, is quite self-affirming. It therefore carries considerable significance to confirm and express such desirable internal attributes of the self. Individuals are often highly motivated to maintain and pursue a high sense of self-esteem (Taylor & Brown, 1988), autonomy and choice (Iyengar & Lepper, 1999), rationality (Miller, 1999), competence (Deci & Ryan, 1995), and efficacy (Bandura, 1997). For those engaged in the independent mode of being, it is an important cultural competence to maintain a positive view of the personal self because it facilitates the ever-important cultural mandates of self-expression, choice, and autonomy.

In contrast, in the interdependent mode of being, social connectedness as actualized in social obligations, duties, and responsibilities, constitutes the central theme of self-definition. Construing the self as fully embedded and appreciated in a meaningful social relation is highly self-affirming. It therefore carries a premium to pay close attention to the surroundings and fit in. "Standing out" by boosting the positivity of the self can hardly be seen as mature or respectable. Instead, to "stand in" by focusing on one's relatively negative aspects is better accepted and encouraged and is seen as a sign of maturity. As may be expected, the tendencies for self-enhancement, which are quite widespread in North America, are hardly as pronounced and, often times, barely observed in any consistent fashion in Japan and other East Asian cultures (Heine et al., 1999). In fact, in many cases, Japanese draw self-critical appraisals of themselves. Moreover, this self-criticism is the case even if there is no chance of public scrutiny of their responses (Karasawa, 2001). For those engaged in the interdependent mode of being, it is an important cultural competence to maintain a self-critical attitude toward one's self because it promotes the ever-important goal of fitting-in.

The divergent psychological tendencies of self-enhancement and criticism are mediated by myriad collective, society-level processes. For example, in a recent study, American and Japanese respondents were asked to remember what they did when something either good or bad happened to their friends (Kitayama, Nakama, & Saitoh, 2003). They were also asked to remember how many days ago the event occurred, as a proxy measure of the frequency of the behaviors. The median recentness of the latest acts of such support showed a dramatic cross-cultural difference. Whereas in the United States such acts of support occurred fairly recently, regardless of the state of the friends being positive or negative (the average median recentnesses were four and three days, respectively), in Japan, similar acts of support were offered fairly recently if the friends were in a negative state (the average median recentness was three days). However, such acts of support must have, in

all likelihood, been very rare if the friends were in a positive state. The mean median recentness was 60, which is longer than the corresponding number for Americans by factor of 12. These numbers imply, then, that in the United States, but not in Japan, friends tacitly encourage and reinforce the positivity of one another.¹

It is likely that there are many similar cultural patterns that collectively maintain the psychological tendencies of self-enhancement and self-criticism. Indeed, the collective foundation for these psychological tendencies may be both very subtle and highly pervasive. For example, a study suggests that the very ways in which mundane social situations are defined and constructed are systematically different across cultures so that these situations themselves foster and reproduce the respective psychological biases in self-perception (Kitayama, Markus, Matsumoto, & Norasakkunkit, 1997). This work was composed of two phases. In the first phase, both American and Japanese college students were asked to remember and describe as many situations as they could in which their self-esteem increased or decreased (called the success and the failure situations, respectively). The researchers then sampled 400 situations from the much larger set of situations thus generated. The sampling was entirely random except that there were equal numbers of success and failure situations generated by the American and Japanese respondents (100 each \times 4 = 400). These situations were translated, back-translated, and prepared in both languages. In the second phase, new groups of American and Japanese students were asked to read each situation carefully and to report the degree to which their own self-esteem would increase or decrease in the situation.

Are Americans really self-enhancing, in that their self-esteem is more likely to increase in success situations than it decreases in failure situations? Alternatively, are Japanese really self-critical, in that their self-esteem is more likely to decrease in failure situations than to increase in success situations? To address these questions, the researchers averaged both the degree of estimated increase in self-esteem in the success situations and the degree of estimated decrease in self-esteem in the failure situations. The average estimate for the decrease in self-esteem in the failure situations was then subtracted from the average estimate for the increase in self-esteem in the success situations to yield an index of relative self-esteem change. Positive scores on this index indicate that self-esteem is more likely to increase with success than it decreases with failure (self-enhancement), whereas negative scores indicate an opposite tendency (self-criticism). This index was computed separately for both Americans and Japanese when they were presented with either American- or Japanese-made situations.

¹This occurrence happens either because there are a greater number of positive events in North America than in Japan, because Americans are more likely to offer well-intended acts when a good event happens to their friends, or both. We suspect that both of these mechanisms are involved.

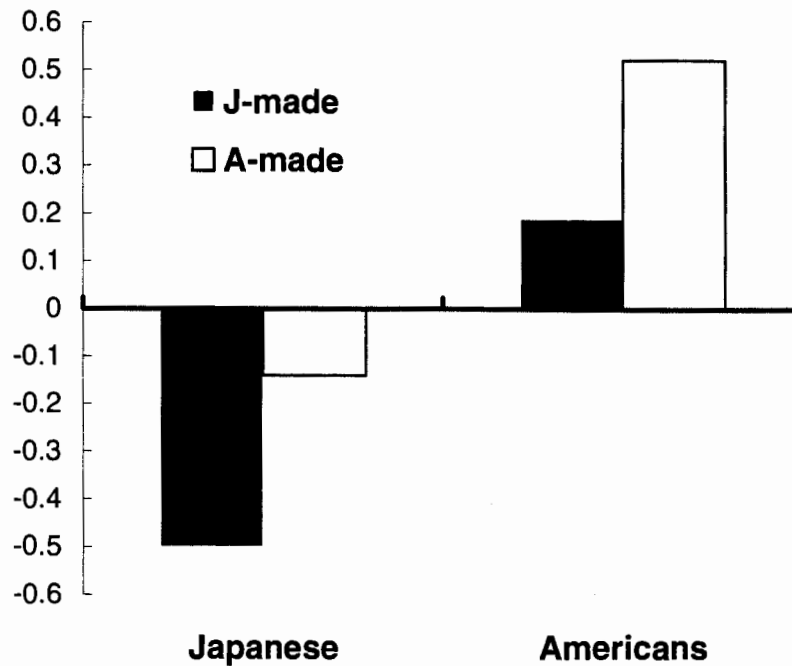


Figure 3.1. Self-enhancement in the United States and self-criticism in Japan: Whereas Americans were more likely to feel an increase of self-esteem in success (relative to a decrease of self-esteem in failure), Japanese were more likely to feel a decrease of self-esteem in failure. Moreover, these culture-contingent biases in self-perception are more pronounced when individuals are presented with situations that are commonly available in their own cultural contexts. From the data reported in Kitayama, Markus, Matsumoto, and Norasakkunkit, 1997.

The results are summarized in Figure 3.1. First, consider cases in which the respondents were presented with situations that had been sampled from their own respective cultural contexts. As can be seen, Americans (when responding to the American-made situations) showed a massive self-enhancing effect. Indeed, in this condition, nearly 90% of the respondents showed a varying degree of the same tendency, hence replicating earlier research in this area. In contrast, Japanese (when responding to the Japanese-made situations) showed an equally robust self-critical effect. Again, nearly 90% of the respondents showed the same effect to a varying extent. Second, the remaining two conditions fell between the two extremes. Thus, when responding to the Japanese-made situations, Americans were less self-enhancing and, likewise, when responding to the American-made situations, Japanese were less self-critical. This pattern of results strongly suggests that the psychological tendencies of self-enhancement and self-criticism are grounded importantly in the actual social situations of the respective cultures. Specifically, it is likely that American situations are constructed in such a way that they encourage individuals to attend to, elaborate, and express the positivity of the self while ignoring, suppressing, or discounting

negativity of the self. Likewise, Japanese situations may be constructed to carry a reversed pattern of affordances for self-perception.

Influence and Adjustment

The two modes of being may also be associated with equally divergent interpersonal functions. Weisz, Rothbaum, and Blackburn (1984) have proposed that there are two ways of relating to others (or, more generally, to the external environment). One is to influence and cause changes to happen to others in accordance with one's own wishes, desires, and needs. This strategy is called *primary control*. The other is to adjust the self to others or, more generally, to external contingencies. This strategy is called *secondary control*. Although some researchers have suggested that the first strategy of influence is literally more dominant and primary and, thus, taken prior to the second strategy of adjustment (e.g., Heckhausen & Schulz, 1995), the present analysis suggests that deployment of the two social coping strategies is contingent on a variety of factors including, among others, the predominant cultural views of the self as independent or interdependent (e.g., Gould, 1999; Kitayama, 2002; Morling, Kitayama, & Miyamoto, 2002, in press).

In the independent mode of being, in accordance with the positivity, competence, and abilities of each personal self, social relations are organized in terms of each person's choice to enter into them. Furthermore, individuals exercise primary control or influencing strategies in relating to others. They therefore seek mutual fulfillment of each other's positive self-images. In this form of social relationship, it is important to carefully attend to and even manage each other's self-esteem so as to continue a positive relationship with others. Hence, to be generous (i.e., to offer supportive acts even when there is no obvious need) may become an important virtue. It may be recalled that American friends extended supportive acts to one another regardless of the other's state being positive or negative. Thus, individuals must have acquired important competences to form relationships and to maintain them in a way that is most satisfactory to them.

An analogous argument can be made for the interdependent mode of being. Within this mode of being, social relations are likely to be relatively stable and, more often than not, assigned and prearranged for each individual (e.g., as in arranged marriages or in social networks in a school classroom). The primary task of fitting-in and adjustment, then, goes hand-in-hand with these forms of social relationship. Fitting into these social relations often, if not always, involves finding, creating, and returning obligations. It is a social responsibility, for example, to help someone in need, which in turn produces an obligation to return the favor when the roles are reversed. Therefore, it is an important moral imperative never to fail to help someone in distress. In the absence of such obligations, helping someone is "strange" or "unnatural," interpreted accordingly with suspicions about ulterior motives.

In short, dependability is required to assure a respectable membership in a social relationship like this. Remember, Japanese friends extended supportive acts only when the other was in trouble. Thus, individuals must have acquired important competences to be attentive to others in a relationship and to coordinate themselves in accordance with others' expectations.

Recent research by Morling, Kitayama, and Miyamoto (2002) has provided initial support for the hypothesis on the relational functions associated with the two modes of being. These researchers asked both American and Japanese college undergraduates to describe as many situations as possible in which they either "influenced things in their surroundings in accordance with their own wishes and desires" or "adjusted themselves to things in their surroundings." The respondents were asked to report only those situations that had actually happened to them. They also indicated how long ago each situation took place. The first important finding concerns the recentness of the reported situations. This finding yielded a reliable cross-cultural difference. Thus, when asked to generate situations involving influencing acts, Americans reported much more recent situations than did Japanese (4 days ago versus 14 days ago). But when asked to generate situations involving adjustment, Japanese reported more recent situations than did Americans (1 day ago versus 7 days ago). Thus, as hypothesized, in the United States, acts of influencing were more commonly constructed and, thus, cognitively more elaborate and hence more available in memory. They are, in fact, primary. But in Japan, acts of adjusting are more common, more elaborate, and more available in memory. Hence, in Japan, it is these acts of adjustment—secondary control (Weisz et al., 1984)—that are arguably more primary.

According to our analysis of the two modes of being, however, the acts of influencing and adjusting are likely to be not only different in prevalence and mnemonic availability but also defined or framed in very different ways across the two cultures. In the United States, influencing is assumed to be a means of both keeping one's own self-esteem high and forging a meaningful social relationship. One typical example of this form of influence is persuasion. In contrast, in Japan, adjusting is assumed to be a means for creating and maintaining a meaningful social relationship. One typical example is sympathy and compassion extended to someone in need or distress. In this cultural context, self-esteem in the sense of perceived efficacy, power, and competence, is not central and, therefore, is unlikely to be implicated in many social domains and activities, including the main cultural task of adjustment.

To investigate these ideas, Morling and colleagues selected 320 acts from the entire set of acts that had been generated in the first phase of the study. The selection was constructed randomly with the constraint that equal numbers of influencing and adjusting acts were sampled from both the United States and Japan. These acts were subsequently translated and back-translated and prepared in both languages. These acts were then presented to

new groups of American and Japanese college students. The respondents were asked to imagine that they had engaged in each act and to report both how efficacious, competent, or powerful they would feel ($-4 = \textit{very inefficacious and incompetent}$; $+4 = \textit{very efficacious and competent}$) and how connected and close they would feel to others (who are present in actuality or in imagination) in the situation ($-4 = \textit{quite separate and independent}$; $+4 = \textit{quite connected and close}$).

It is reasonable to assume that acts sampled from one's own culture are ecologically and culturally more valid. More often than not, Americans are likely to find themselves engaging in acts that are sampled from the United States, whereas Japanese are likely to find themselves engaging in acts that are sampled from Japan. Only those ecologically or culturally valid cases are discussed here. The culturally foreign cases (where the participants respond to foreign-made situations) are omitted.² Figure 3.2-A shows the increase in self-esteem estimated by both American and Japanese respondents in the influence and the adjustment conditions. First of all, it is clear that acts of adjustment have virtually nothing to do with self-esteem. Second, and more important, the respondents reported that engaging in acts of influence would be quite effective in increasing their self-esteem. Moreover, this effect was substantially stronger for Americans than for Japanese. Consistent with our analysis, this finding demonstrates that influencing serves as a booster of self-esteem and, moreover, that this is especially true in the United States.

Next, Figure 3.2-B shows the estimated increase in interpersonal connectedness. As predicted, Japanese reported much more connectedness when engaging in acts of adjusting than when engaging in acts of influencing. This finding is quite consistent with the hypothesis that in the Japanese cultural context, interpersonal adjustment is the culturally sanctioned means for creating and maintaining social relationships. It is important to note that when Americans were engaging in acts of adjustment, they experienced little or no sense of interpersonal connectedness. Instead, Americans experienced a strong sense of connectedness to others when engaging in acts of influencing. This finding lends support to the hypothesis that mutual influence is the culturally sanctioned mode of relating to one another in the United States. Note again that the Japanese reportedly experienced little or no sense of connectedness when engaging in comparable acts of influencing.

Summary

Along with other relevant research findings (e.g., Fiske et al., 1998; Heine et al., 1999; Kitayama & Markus, 1999; Markus & Kitayama, in press, for reviews), the two studies examined in some detail here (Kitayama et al., 1997; Morling et al., 2002) suggest that the way in which the notion of self

²By examining the responses to acts sampled from the culture different from the respondents'.

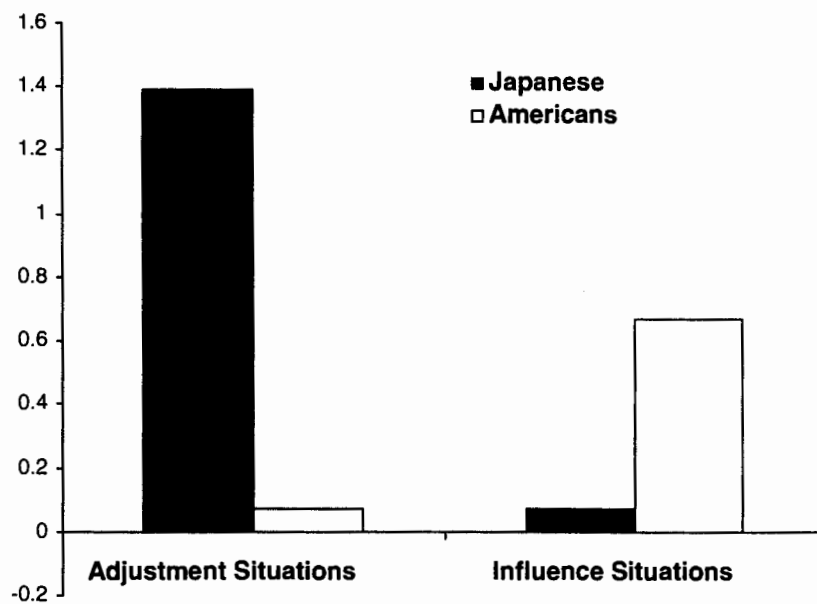
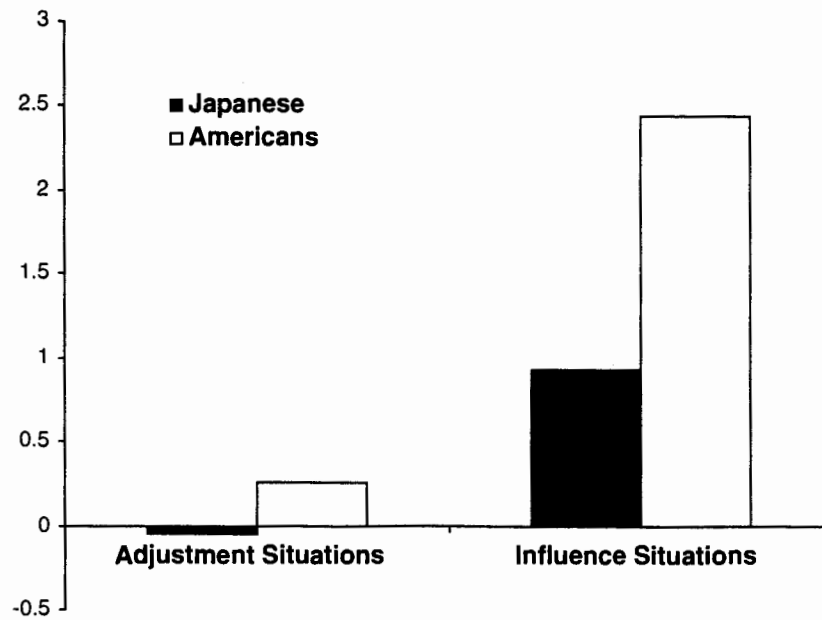


Figure 3.2. Perceived levels of self-esteem (Figure 3.2-A) and connectedness (Figure 3.2-B) for Americans and Japanese during the acts of either influencing or adjusting. From the data reported in Morling, Kitayama, and Miyamoto (2002).

and social relations are constructed varies across cultures. In the independent mode, which is more common in the United States, attending to one's self-esteem-related concerns is primary. Moreover, acts of influencing others serve the functions of both maintaining high self-esteem and forging social relations. The associated skills and psychological tendencies constitute a significant cultural competence.

In contrast, in the interdependent mode, which is more common in Japan, adjusting to others and, thus, feeling embedded in a social relationship constitute much more central concerns. Furthermore, skills and psychological tendencies that promote this mode of being (such as self-criticism and adjustment) constitute a significant cultural competence. As may be expected, interpersonal adjustment serves the function of enhancing social connectedness. But little or no self-esteem appears to be involved in this process. This set of findings strongly suggests that forms of self-in-social-context vary considerably across cultures and correspondingly divergent sets of cultural competences are called for.

CULTURAL VARIATIONS IN COGNITION

The cross-culturally divergent forms of self and social relations, along with the associated personal and interpersonal skills and competences, are likely to be related to cognitive competences. In differently organized social worlds, individuals are likely to (a) think differently because very different beliefs, schemas, and folk assumptions about the nature of the person and his or her surroundings are encouraged, vividly revealed in cultural icons, media, and other cultural artifacts of daily life, and made highly accessible in memory; (b) attend differently because quite different pieces and configurations of stimuli or quite different parts of the social world are held to be relevant and informative; and, moreover, (c) perceive differently because of varying informativeness and relevance of different parts of the perceptual world. These considerations suggest that there should be considerable variations not only in the domains of self and social relations, but also in the domains of basic cognition and perception.

The notion that cultural factors may influence perception is related to a set of ideas first proposed by Jerome Bruner and his colleagues in the 1950s under the name of the *New Look*. The basic thesis of the *New Look* is that perception relies not only in part on sensory information but that percepts are also significantly modified by factors endogenous to the perceiver, such as value, expectation, needs, desire, and emotion (Bruner, 1957; Bruner & Goodman, 1947; Higgins & Bargh, 1987). Exogenous factors such as the physical properties of a stimulus or the resulting sensory impression do not fully explain the experienced percept.

If value, need, expectation, desire, and emotion affect perception, it is relevant to ask whether culture may be an important source of these endogenous factors. Individuals constantly engage themselves in the institutions, practices, technologies, and rituals of their culture and rely on these cultural resources to create meaning from their experiences. Thus, culture may be an important source of the kinds of endogenous factors that modify perception. Given the variability in the practices and beliefs maintained by different

cultures, it is likely that these cultural resources maintain and encourage divergent attentional and perceptual capacities.

Folk Beliefs and Social Inference

In the independent mode of being, each individual is held to be independent and separate from her or his context and, moreover, she or he is assumed to guide her or his own behaviors to influence and cause changes to happen in her or his surroundings. In other words, the prevailing assumption is that each person has her or his own disposition, which is causally related to her or his own overt behaviors. This belief, called *lay dispositionism* by Ross and Nisbett (1991), has been suggested to be responsible, at least in part, for fundamental attribution error namely, the tendency to estimate an undue causal power in the actor. One of the most discussed cases of fundamental attribution error is the effect called *correspondence bias*. A number of studies have shown that when observing another person making a statement on an issue, North Americans attribute the corresponding attitude to the person even if the person's behavior is heavily constrained by external factors (e.g., being pressured by an authority figure to make the statement; see Gilbert & Malone, 1995; Jones, 1979, for reviews).

In the interdependent mode of being, by contrast, individuals are held to be interconnected through a web of obligations and, moreover, it is assumed that they will adjust themselves to expectations, needs, and desires of people in their surroundings. In other words, the prevailing assumption is that social surroundings often solicit, induce, encourage, and guide each person to behave one way or the other. This assumption does not deny individual agency because the agency itself is conceptualized as inclusive of the individual's surroundings and thus as conjoint rather than as disjoint. That is, each person is assumed to be attentive to his or her social surroundings, actively incorporating cues available in those surroundings, and eventually coordinating their wills and desires in accordance with situational expectations and inducements. However, beliefs in interdependence may not give rise to a simplified notion that every behavior is likely to have a cause in the corresponding disposition of the actor. Other factors such as situational constraints and affordances are equally likely to be taken into account.

An increasing number of cross-cultural studies have suggested that dispositional biases and errors in causal inference and attitude attribution may not be as robust in the Asian cultures of India (Miller, 1984), Hong Kong (Lee, Hallahan, & Herzog, 1996; Morris, Menon, & Ames, 2001), China (Morris & Peng, 1994), Korea (Choi & Nisbett, 1998), and Japan (Miyamoto & Kitayama, 2002). This finding, however, should not be taken to suggest that there is no dispositional understanding in East Asia. East Asians do take dispositional factors into account. However, they are also likely to weigh the

situational factors as heavily as the dispositional factors. Their decision rules about the degree to which to give weight to disposition versus situation might prove to be more complex than the lay dispositionism that is demonstrably more common in North America.

Specifically, according to the lay belief in interdependence, when behavior takes place, it is placed in a web of many factors, including the disposition of the actor himself or herself and certain situational factors that are impinging on the actor. Under this scheme of social understanding, it is crucial to find out how diagnostic behavior is in respect to the actor's corresponding disposition. If, for example, the actor is making a very lengthy, passionate, and more or less coherent argument for a certain position, the behavior is highly diagnostic of his own attitude. Unless motivated by his conviction, it is hard to imagine why the person is acting the way he does. If, however, the actor's argument is emotionless, quite short, and unpersuasive, it may seem that the person is acting out of other, external concerns. Under these conditions, the individuals will weigh possible situational factors quite seriously. If so, they may not exhibit any correspondence bias.

To investigate these possibilities, Miyamoto and Kitayama (2002) manipulated attitude diagnosticity of behavior and examined whether correspondence bias would be diminished if the diagnosticity were quite low (see also Masuda & Kitayama, 2002). Both American and Japanese college students were given an essay that was allegedly composed by a fellow student. It was explained to them that the student was asked by his political science instructor to write an essay. The position to be taken in the essay, so the explanation continued, was decided on by the instructor and, thus, the student had no choice. The stimulus essay either supported or argued against capital punishment. Furthermore, the essay was either highly diagnostic of the writer's attitude (i.e., it was quite long and persuasive) or utterly nondiagnostic (i.e., it was quite short and unpersuasive). After reading the essay, the participants estimated the true attitude of the essay writer. Correspondence bias would be indicated if the estimated attitude was more pro-capital punishment in the "pro" essay condition than in the "anti" essay condition.

Miyamoto and Kitayama (2002) found that American respondents showed a quite strong correspondence bias regardless of the attitude diagnosticity of the stimulus essay. Along with other findings indicating a strong dispositionism of Americans, this finding demonstrates a strong cognitive bias that favors dispositional attributions for these individuals. In contrast, Japanese showed an equally strong correspondence inference when the stimulus essay was highly diagnostic of the attitude of the essay writer. However, when the essay was nondiagnostic and, therefore, there was reason to suspect outside influences on behavior, Japanese no longer showed any correspondence bias.

The extra weight devoted to verbal content by Americans can be found at the level of more spontaneous attention. In a recent series of studies,

Kitayama, Ishii, and Reyes have applied a Stroop-type paradigm to examine spontaneous attention to verbal content and vocal tone (Ishii, Reyes, & Kitayama, 2003; Kitayama & Ishii, 2002). In one study, Ishii and colleagues (2003) prepared a number of English words and their translation equivalents in Japanese. Half of the words had positive verbal content (e.g., grateful, warm) and the remaining half had negative content (e.g., tasteless, sly). Furthermore, the words were spoken in either a positive (smooth and round) or a negative (harsh and constricted) tone of voice, which are recognized to be either pleasant or unpleasant, respectively. The researchers exercised some necessary controls over the stimuli. First, several English–Japanese bilinguals served as speakers to create both the English and the Japanese stimuli. Second, a series of pretests were conducted on low-pass filtered stimuli (with verbal meanings made indiscernible) to make sure that the pleasantness or unpleasantness of the verbal content and the vocal tone was equivalent in the two languages.

The respondents were presented with each word one at a time and asked either to judge whether the verbal meaning of the word was pleasant or unpleasant while ignoring the attendant vocal tone, or to judge whether the vocal tone of the word was pleasant or unpleasant while ignoring the attendant verbal meaning. Using this Stroop-type procedure, it was possible to examine the degree to which attention was automatically captured to either vocal tone or verbal meaning when respondents were instructed to ignore the respective channels of information. To the extent that the to-be-ignored channel automatically captures attention, it should interfere with the required judgment. Hence, the time required to make this judgment should be longer if the to-be-ignored channel carries incongruous information than if it carries congruous information.

Response times of both Americans and Japanese showed a significant interference effect in both judgments, indicating that regardless of languages, both verbal content and vocal tone are automatically processed. As predicted, however, the size of the interference effect varied substantially between the two judgments and, moreover, the direction of the effect was diametrically opposite in the two cultures or languages. Thus, as predicted, Americans showed a stronger interference effect in vocal tone judgment, indicating that they processed verbal content more automatically than they processed vocal tone. In contrast, Japanese showed a stronger interference effect in the verbal content judgment than in vocal tone judgment, hence indicating that they spontaneously attended more to vocal tone than to verbal content. Thus, this data indicates that Americans are much more likely than Japanese to concentrate their attention on the focal aspect of what the person is saying (i.e., verbal content). We should hasten to add, however, that the relative sensitivity to word versus tone is most likely to vary across different social settings. For example, Sanchez-Burks (2002) used a similar vocal Stroop-type paradigm and showed a reliable preference for tone over word (the pat-

tern observed for Japanese in the Ishii et al. study) for Americans when they were placed in a family context.

Perceiving an Object and Its Context

Whenever individuals are exposed to a configuration of stimuli, they are likely to segregate the environment into an object and its context (Kahneman, 1973). The findings reviewed so far suggest that a major cross-cultural difference lies in the weight given to the object vis-à-vis its context in perceiving, recognizing, and drawing inferences about the stimulus configuration. If greater weight is given to the object (with its context relatively ignored), the perception becomes quite narrowly focused on the object. In this sense, the perception may be said to be *field-independent* (Witkin et al., 1954). Moreover, any reasoning and inferences generated from the perception are bound to be linearly derived. Inferences, in other words, become more rule-based (Norenzayan, Smith, Kim, & Nisbett, 2002). In this sense, the associated style of thought may be said to be *analytic* (Nisbett et al., 2001).

By contrast, if greater weight is given to the context in lieu of the attendant object, perception becomes quite broadly encompassing. Particularly when there is an imminent need or requirement to ignore any stimuli in the context, individuals might have serious difficulty ignoring them. Hence, the perception may be said to be *field-dependent* (Witkin et al., 1954), although, as we shall note below, failure to ignore context can also be seen as an important competence under conditions in which context provides critical information for judgments. Moreover, any reasoning and inferences generated from context-oriented perception may become more gestalt-like: They may be difficult to articulate in linear logic, but may be more readily subjected to iconic images and ideographic configurations. Inferences, in other words, will become more similarity-based (Norenzayan et al., 2002). In this sense, the style of thought may be characterized as *holistic* (Nisbett et al., 2001).

It is debatable whether divergent phenomena encompassed in the rubric of field-independence and field-dependence and analytic-holistic mode of thought is reducible to the abilities to either include or exclude context. Yet, it is clear that both of these theoretical distinctions have these attentional competences as their integral parts. As we shall see, growing evidence suggests that the ability to weigh in context varies systematically across cultures even at nonsocial, largely unconscious levels of information processing.

Framed Line Test

Several recent studies suggest that East Asians place greater attentional resources on contextual information, whereas Americans attend to object features and characteristics. Masuda and Nisbett (2001) showed Japanese and American participants computerized vignettes of underwater scenes with

various objects such as fish, bubbles, and seaweed. In a subsequent recognition task that included objects from the scene in similar and unique settings, Japanese made more references to contextual information and relationships within the environment and were more accurate in recognizing previously seen objects in their original settings than Americans. American participants were equally accurate regardless of whether a previously seen object was shown in its original setting or in a novel setting. Moreover, they provided more descriptions of individual object features than relationships within the environment.

Ji, Peng, and Nisbett (2000) explored differences in context sensitivity by testing American and Chinese participants on Witkin's (Witkin et al., 1954) rod-in-frame task, which was designed to test individual differences in the construct of field-dependence and field-independence. Participants were presented with a tilted frame, at the center of which was a rotating line. The participants rotated the line to be orthogonal to the earth's surface while ignoring the frame. Context-sensitive individuals tended to be influenced by the tilted frame, while context-independent individuals tended to be more accurate at the task. Ji and colleagues (2000) found that Americans were more accurate at the task than Chinese, suggesting that Chinese were unable to ignore the contextual information provided by the tilted frame. Kato (1965) reported a similar effect of greater context dependency among Japanese compared with Westerners as measured by the rod-in-frame task.

The Ji and colleagues (2000) study demonstrates that East Asians are influenced by contextual information to a greater extent than Americans in a perceptual task. One limitation of the task, however, is that the rod-in-frame task only measures the ability to ignore context. This ability may be separate from the ability to incorporate context. This limitation is partly due to the general bias of the cognitive literature, which views human and cultural development as a progression from an ontogenetically primitive field-dependence to a rational, field-independent cognitive style (Witkin, 1967). Yet a variety of cognitive and perceptual mechanisms depend on the ability to incorporate context effectively and accurately into judgments. For example, the spatial scaling involved in using a model or map requires accurately encoding the relation among a variety of objects and encoding proportional distances among symbolically represented objects (Uttal, 1994). Thus, it is possible that the ability to include contextual information may often be extremely adaptive if these abilities are called for by the task at hand.

If we are to be able to test the hypothesis that those engaging in the independent and the interdependent mode of being are more capable of excluding and including context, respectively, it is important to measure the ability to include context in perception separately from measurement of the ability to exclude context in perception. Moreover, the two measurement tasks must be directly comparable. To address these issues, Kitayama, Duffy, Kawamura, and Larsen (2003) have developed a new task called the *framed*

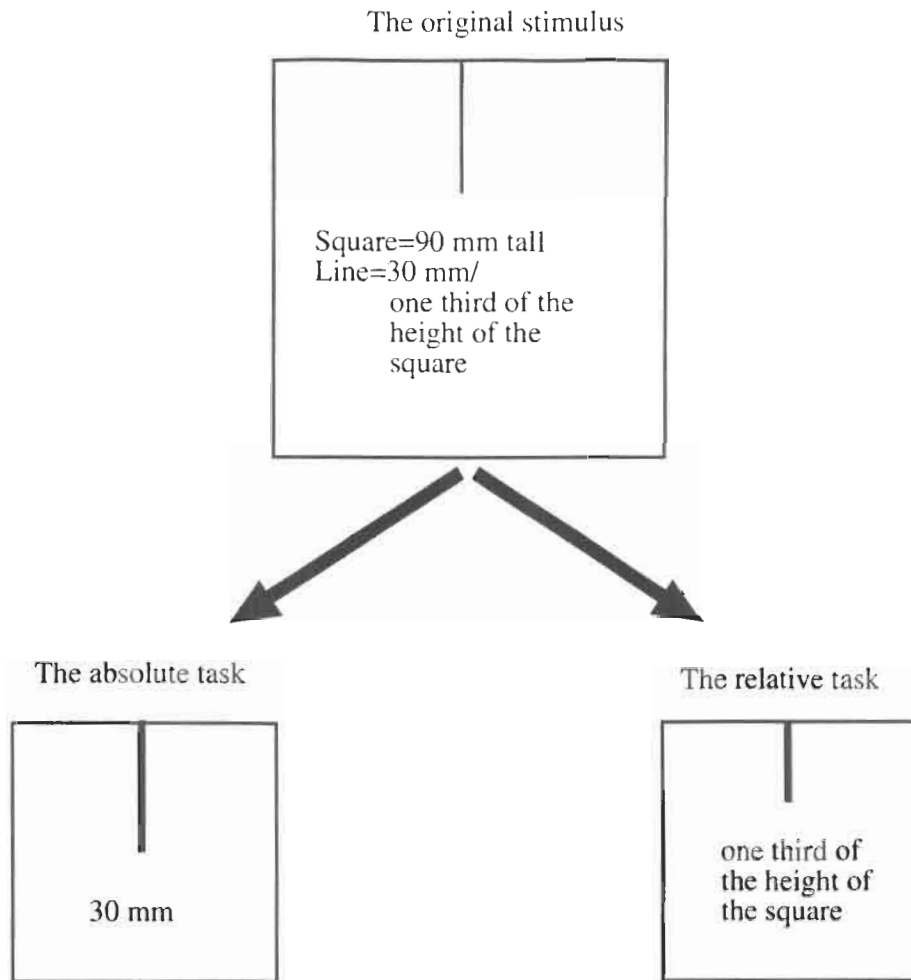


Figure 3.3. The original stimulus, the absolute task, and the relative task from the framed line test. From "Perceiving an Object and its Context in Different Cultures: A Cultural Look at New Look," by S. Kitayama, S. Duffy, T. Kawamura, & J. T. Larsen (2003), *Psychological Science*, 14, p. 201. Copyright by Blackwell. Reprinted with permission.

line task. As illustrated in Figure 3.3, participants are shown a line in a square frame. Participants are then presented with another square frame of the same or different size and asked to draw a line in it. In the *absolute task*, participants are instructed to draw a line that is identical in absolute length to the original line in the first frame. In the *relative task*, participants are instructed to draw a line in the second frame so that it has the same proportion to the new frame as the original line in the original frame. The absolute task requires ignoring the contextual information provided by the original frame while the relative task requires incorporating the context provided by the initial frame in reproducing the line.

In their first experiment, Kitayama and colleagues (2003) applied the framed line task to both Americans and Japanese. The size of the errors in the two tasks is reported in Figure 3.4. As shown, Japanese were more accurate in the relative task whereas Americans were more accurate in the abso-

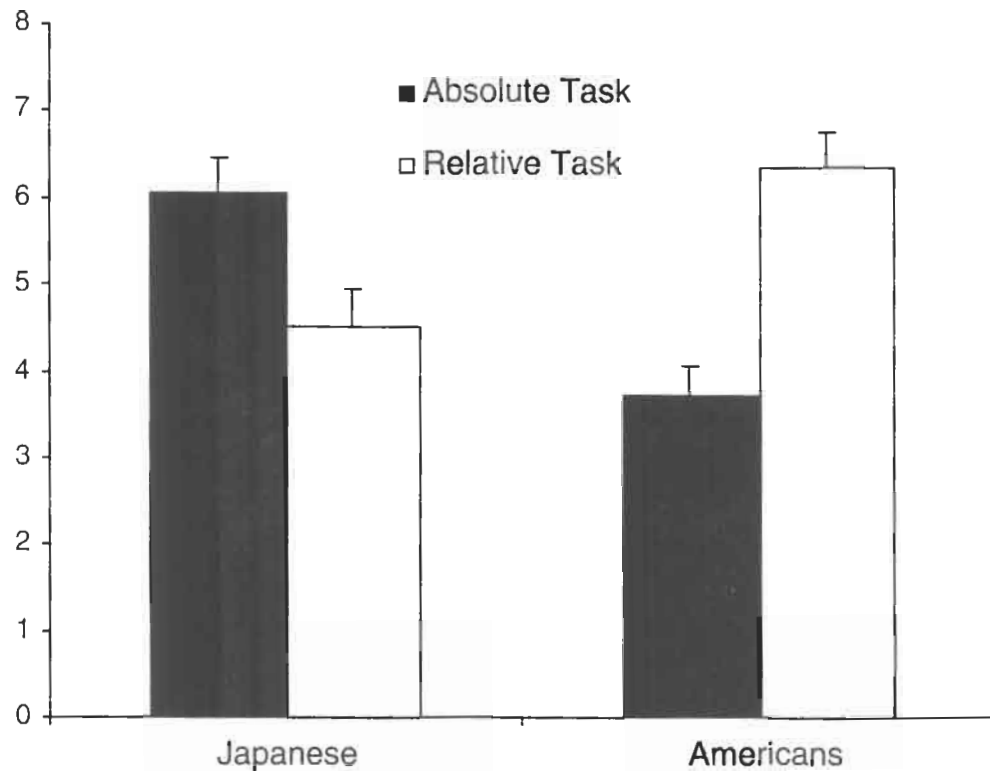


Figure 3.4. Mean error (mm) for the absolute and relative tasks of the framed line test for Japanese and Americans. From "Perceiving an Object and its Context in Different Cultures: A Cultural Look at New Look," by S. Kitayama, S. Duffy, T. Kawamura, & J. T. Larsen (2003), *Psychological Science*, 14, p. 201. Copyright by Blackwell. Reprinted with permission.

lute task. This finding suggests that Japanese were better able to incorporate context into their judgments, but less able to ignore context, whereas Americans were better at ignoring context, but less capable at incorporating context into their reproductions.

In their second experiment, Kitayama and colleagues tested Americans engaged in Japanese culture (Americans studying in Japan) and Japanese engaged in American culture (Japanese studying in the United States). Kitayama and colleagues found that individuals engaged in a host culture demonstrated an effect that mimicked the effect normally observed in the host culture. Moreover, this was the case even for those who stayed in the host culture only for a few months.

There are at least two alternative interpretations for the finding. First, the attentional bias may be malleable enough to become readily adjusted to the new attentional demands of a host culture. Such an acculturation effect has been observed in attitudes and other social psychological measures such as self-esteem (Heine et al., 1999). Second, the perceptual orientations may be analogous to a personality trait that is stable and static over time once acquired, perhaps, quite early in socialization (e.g., Lucy & Gaskins, 2000). According to this interpretation, the above finding may be due to selection

bias, whereby people are attracted to a culture that promotes the orientation they themselves have. To tease apart these two interpretations will entail quite significant implications for the malleability and stability of these competences, as well as for the specific role that bias might have in cultural adaptation.

Preliminary evidence suggests that the acculturation effect might happen in the nonsocial cognitive competence of excluding and including context, but this effect might be weak at most. In a recent study, Kawamura, Kitayama, Greenholtz, and Lehman (2003) applied framed line task to a group of Japanese college students who participated in a six-month exchange program with a Canadian university. Whereas half of the students were tested right before the departure to Canada, the remaining half were tested right before the return to Japan from Canada at the end of the program period. Before the departure to Canada, the ability to include context was much higher than the ability to exclude it. Indeed, the performance of these participants on the framed line task was no different than other Japanese students. If there were any substantial acculturation effect, their cognitive competence would show a reversed pattern at the end of the six-month period. An earlier study by Heine and Lehman (reported in Heine et al., 1999) suggested that this period is long enough to produce a substantial increase in self-esteem of the Japanese students who participated in the same program. However, the Kawamura and colleagues study revealed that the acculturation effect, as measured by performance on the framed line task, was discernible but quite marginal both in actual magnitude and in terms of statistical significance. Hence, acculturation in social psychological domains does happen within the short period of time, but cognitive acculturation might not. Further work is necessary to determine whether longer periods of acculturation are required to reverse these cognitive orientations.

Perceptual Base Rate in Judgment of Object Size

Although context is generally conceptualized as information that physically surrounds a target object within a perceptual field, context may be more broadly construed as information that conceptually surrounds or encompasses a focal object. For example, when individuals hear someone speak, some may be more inclined than others to engage in memory search for potentially useful contextual information to identify the true speech intent (Sperber & Wilson, 1986). Or, when one sees someone on the street, generic knowledge associated with the person, such as race, gender, and age, might be recruited in constructing the conscious representation of the person. For example, if specified as Black, the person might be perceived in terms of the associated stereotypes of Black people as, say, athletic or aggressive (e.g., Wittenbrink, Judd, & Park, 2001). Likewise, if presented with any given perceptual focal object, say, a particular fish, some individuals may be more inclined than

others to engage in memory search to locate pertinent generic knowledge associated with fish in general, and to use the information from stored knowledge to develop a conscious representation of the fish (Huttenlocher, Hedges, & Vevea, 2000).

We suggest that generic knowledge activated in this way constitutes a *cognitive context* for the focal object. Thus, those engaging in the interdependent mode of being (e.g., East Asians) might be predicted to assign a greater weight to the context than might those engaging in the independent mode of being (e.g., North Americans). In a recent study (Duffy & Kitayama, 2003), we investigated whether this possibility might be true in a perceptual domain by using an experimental procedure developed by Huttenlocher and colleagues (2000) with Japanese and North Americans.

Participants were presented with a number of trials in which they reproduced lines of varying lengths. On each trial, participants saw a target line for one second, and after a short delay they adjusted a reproduction line to have the same length as the target line. There were 192 trials of 24 distinct lines that varied in length from 48 pixels (1.5 cm) to 432 pixels (14 cm) in 16 pixel (.5 cm) increments. Under these conditions, Huttenlocher and colleagues suggested that individuals automatically develop a representation of the average (prototypic) line, which in this study was a line length of 240 pixels (8 cm). Once this generic representation is developed after exposure to several lines of varying lengths, the estimation of subsequent lines is influenced by this generic representation. Specifically, the final representation of any individual line is an integration of both the actual sensory input for that specific line and the stored generic representation of the average line length. This integration of sensory information and generic knowledge results in a biased response in which smaller lines are overestimated and longer lines are underestimated.

It has been shown that individuals assign varying weights to the sensory input versus the generic representation in performing this integration on estimation. For instance, if the memory for a particular instance is very inexact, people generally rely more heavily on a stored generic knowledge to reconstruct the instance than if the memory for the particular instance is very exact (Huttenlocher, Hedges, & Duncan, 1991). Over the long run, the use of generic information is likely to enhance the accuracy of perception, especially if sensory information is relatively impoverished. This adaptive function of the prototype, however, may be differentially used in different cultural contexts. To the extent that East Asians are more likely than Americans to strongly weigh cognitive context, the effect of generic knowledge in perception should be more pronounced for the former than for the latter.

The results of this study are presented in Figure 3.5. Bias (the average difference between the participant's estimate of the line length and its actual length) is plotted against the actual line length. Both Japanese and North Americans bias their responses toward the average line length, as indicated

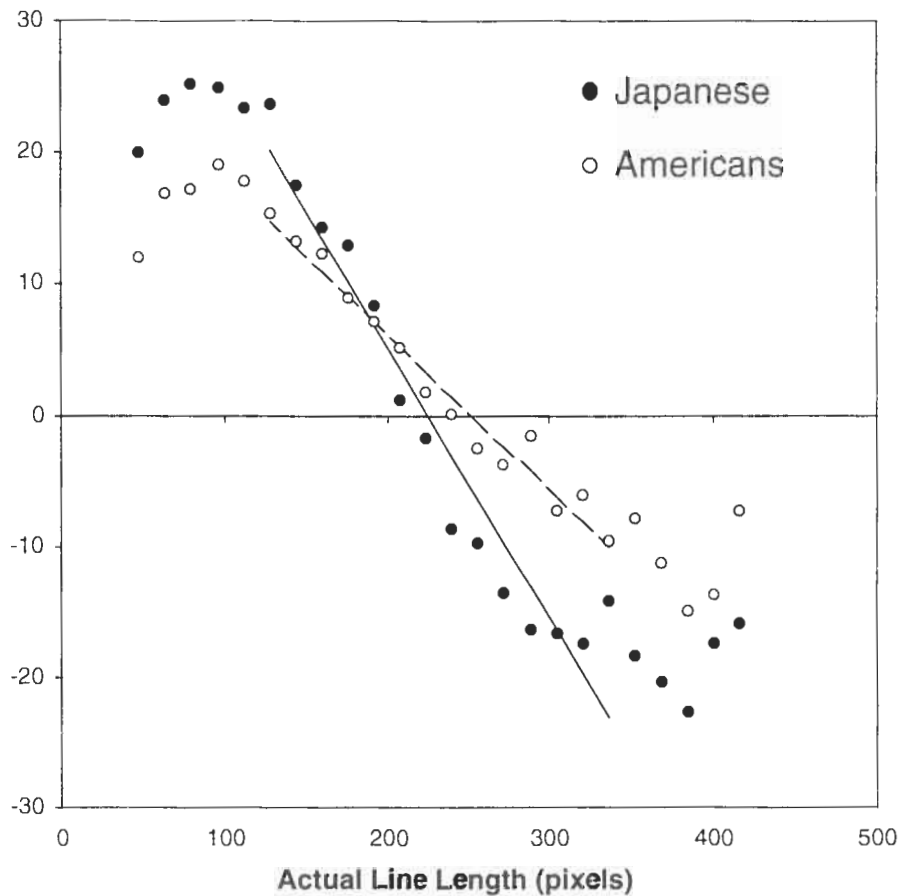


Figure 3.5. Bias (in pixels) as a function of actual stimulus values by culture in a line-estimation task. The steeper the slope for the regression line for Japanese participants suggests that a greater incorporation of cognitive context. From Duffy and Kitayama (2003).

by the negative slope of the line. However, the bias toward the prototype was significantly stronger for Japanese participants than for North American participants. We replicated this cross-cultural difference in another study that drew a comparison between Americans and Chinese. In both studies, the East Asian participants were influenced by the context provided by the prior distribution of lines to a greater extent than the North Americans. These results are consistent with the findings of Kitayama and colleagues (2003), which show that East Asians incorporate context in their judgments of a target object to a greater extent than North Americans. However, in the present task, the context is not a physical frame that surrounds a focal stimulus but a conceptual “frame” in the form of average information that influences the estimation of a focal object’s features.

It remains to be seen whether analogous effects of generic knowledge or schema effects in general, including some of the vicious effects of stereotypes, might also be stronger and more persistent among East Asians or those engaging in the interdependent mode of being than among Americans or those engaging in the independent mode of being. On the one hand, such a

cross-cultural difference is the most straightforward extrapolation from the study reported above (Figure 3.5). On the other hand, different domains—say, domains of racial stereotyping—do carry many extraneous factors such as strength and mnemonic accessibility of relevant stereotypes, severity of consequences associated with such knowledge, and associated discourse patterns and social institutions. These factors, in turn, make any simple extrapolation from a nonsocial domain to the social domains seriously premature. It is only through careful comparative empirical work that any believable answers can be suggested and, at present, such studies have yet to be conducted.

IMPLICATIONS FOR FUTURE RESEARCH ON CULTURAL COMPETENCE

In this chapter, we have summarized, in broad strokes, the two divergent modes of both being a self and relating to others. We have further delineated some consequences of these social dynamics on cognitive processes. In this section we summarize the findings of the chapter.

Cultural Modes of Being

Within the independent mode of being, individuals are quite motivated to establish desirable internal attributes and use them to regulate their own behaviors and influence others. This general schema for self and social relations serves as a cognitive template for interpreting and drawing inferences about another person. Hence, the causes of another's behavior are first searched for in the person himself or herself, resulting in fundamental attribution error or correspondence bias. In all these social instances of cultural influence, major bias occurs in the assignment of a greater weight to a focal object such as person and verbal content. Indeed, this bias for object has been demonstrated even in some domains that are arguably nonsocial, such as determining the length of a line presented in varying contexts.

In contrast, within the interdependent mode of being, individuals are quite motivated to adjust themselves to others, thereby maintaining and managing social ties and mutual obligations. This general schema for self and social behavior serves as a cognitive template for social perception and inference. Hence, the cause of another's behavior is often distributed relatively evenly to both dispositional and situational factors. As may be expected, the fundamental attribution error or the correspondence bias is demonstrably attenuated. In all these instances of cultural influence, an appreciably greater weight is assigned to context rather than to the object. Moreover, this bias for including context has also been established in nonsocial domains.

It must be kept in mind that although the modes of being are associated, from a broad cross-cultural perspective, with general cultural regions

such as North America and East Asia, there may be many exceptions to this general association. In fact, it may be predicted that cultural biases may be quite variable within any single culture, depending on the specific mode of being that is evoked in any given situation. For example, it is entirely possible that North Americans show interdependent patterns of social behavior and cognitive biases if placed in close friendship relationships (Kitayama & Uchida, 2003) or within a family context (Sanchez-Burks, 2002). Conversely, East Asians may exhibit independent patterns if placed in anonymous social settings that encourage the pursuit of self-interest (Yamagishi, 1986). More generally, any cultural biases may be contingent on specific social situations that subtly, yet powerfully, prime and highlight one or the other mode of being. Given the evidence reviewed earlier (Kitayama et al., 1997; Morling et al., 2002) on the effect of exposure to situations sampled from different cultures, it would seem entirely possible that any given cultural biases are most vividly observed on the home cultural turf. Temporarily activating alternative cultural frames or situations might effectively induce the correspondingly different cultural biases. The studies on priming effects have suggested that this possibility is quite plausible at least in some social and cognitive domains (e.g., Brewer & Gardner, 1996; Hong, Morris, Chiu, & Benet-Martinez, 2000; Kuhnen, Hannover, & Schubert, 2001; Kuhnen & Oyserman, 2002).

Malleability and Variability of Cultural Competences

Our analysis suggests that engagement in the specific modes of being that organize and animate an individual's social world nurture a myriad of cultural competences. These competences are constantly encouraged and reinforced so that many of them may ultimately form an integral part of the psychological system of regulating attention, perception, cognition, emotion, motivation, and action. Although these specific competences are quite unique and variable in detail, one unmistakable theme cuts across these various domains. The work we have reviewed suggests that whereas the independent mode of being fosters a competence for focusing on focal objects and excluding contextual information, the interdependent mode of being fosters a competence for incorporating context in thinking about focal objects.

Future research must explore a number of issues pertaining to the differential weighing of focal versus contextual information. Given the degree to which modern technologies and economies promote and foster individual engagement within international contexts and settings, it is of utmost significance to determine the degree of stability or malleability of the independent and interdependent modes of being and their consequent effects on cognition and perception. Research on priming (e.g., Kuhnen & Oyserman, 2002) suggests that these social and cognitive processes may temporarily change by activating constructs associated with an alternative mode of be-

ing. However, in view of the many difficulties immigrants have in coping with the norms and customs of a new host culture, the cultural competences we have described may not be nearly as malleable as the priming studies suggest. Thus, there is reason to suspect that the kinds of cultural competences we have reviewed—especially those that are nonsocial and, hence, relatively dissociated from the specific details of daily social activities—represent deeply entrenched and fundamentally divergent ways of thinking and interacting within fundamentally different sociocultural worlds.

Developmental Time Course

Indeed, most nonsocial competences within the domains of cognition and perception are likely to be established fairly early in life (Arterberry & Kellman, 2000; Spelke, 1990). Hence, as we suggested earlier, it seems unlikely that cultural competences within these domains may be mutable through minimal exposure to an alternative mode of being. Phonemic learning is a case in point. Although neonates are born with the capacity to discriminate all the phonemes used in all human languages, by age nine months exposure to the phonemes in the language environment fixes the categorical boundaries so that nonnative distinctions become indiscriminable (Werker & Tees, 1984). Once brought up in Japan, the phonemic distinction between the // and the /r/ sound, which is absent in Japanese, becomes totally blurred and recoverable only after extensive training (McCandliss et al., 2002; Miyawaki et al., 1975). Likewise, the cultural bias in the allocation of weight to “object-in-general” versus “context-in-general” may also have a relatively early origin, which, in turn, provides a constant constraint over all matters of cognitive, emotional, and motivational functions that begin to unfold in every corner of social life. This constraint and the resulting bias on the emerging social competences may be relatively easy to overcome with self-conscious effort, but will, in all likelihood, be impossible to totally nullify or, much less, to ignore. Moreover, the bias itself may be relatively difficult to change.

Once acquired, these nonsocial cognitive competences are likely to channel higher-order thought and action in social domains in certain systematic directions. And yet, they are unlikely to be directly challenged or compromised by demands and requirements of social tasks and activities. These considerations raise an important possibility that nonsocial cognitive competences, which are variable across cultures, might prove to be relatively easy to acquire fairly early in life and, yet, might be quite stable afterward. If so, these nonsocial cognitive competences might be good candidates for a mechanism for the durable maintenance and reliable cross-generational reproduction of culture (see also Sperber, 1985, 1996, for a related analysis of cognitive basis of culture). This possibility is schematically illustrated in Figure 3.6. This preliminary model of cultural competence highlights the potentially important role played by nonsocial competences that are acquired

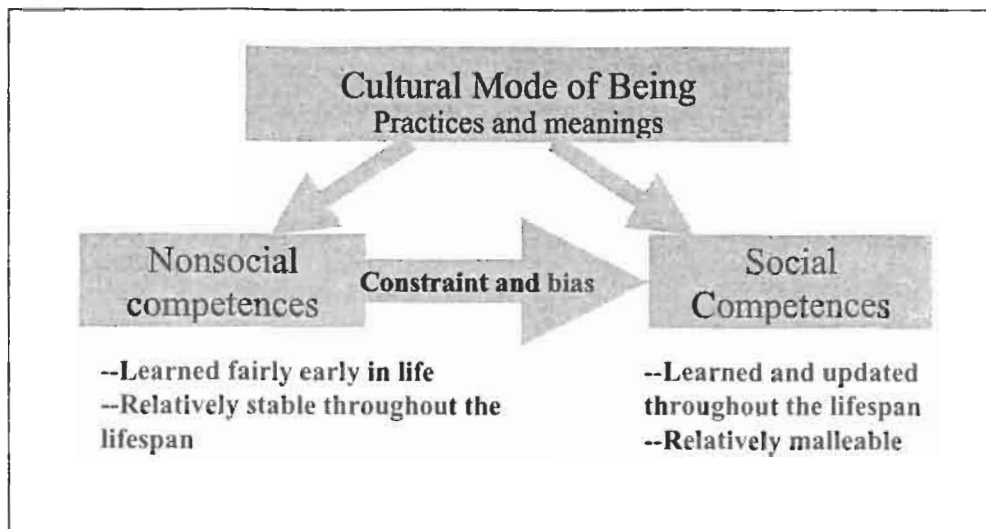


Figure 3.6. A preliminary model of cultural competences: The critical role of nonsocial competences acquired early in life.

early in life and that remain relatively stable throughout the lifespan. Here we might be able to locate a significant psychological underpinning of cultural traditions, which fluctuate, to be sure and, yet, are extremely unlikely to change in any drastic ways over a very short time.

To the extent that this conjecture has any merit, future research in this area will benefit from a concerted effort to explore the critical period when such weight assignment in nonsocial domains is acquired (Lucy & Gaskins, 2000; Minoura, 1990). Moreover, it is also important to examine what kinds and extent of training or experience might be required to challenge and even reverse habitual modes of focusing on object or context in perception and cognition. A systematic program of empirical work addressing these questions will have very important practical bearings in helping people to adapt to new cultural environments if they move across cultural boundaries.

Final Thought

Aside from some of the practical implications of the nonsocial cultural competences we noted above, we are well aware of one enormous challenge the relevant findings pose to the theories of cultural psychology. The challenge has to do with the origins of these competences. The past two decades of research has shown, or at least has strongly suggested, that the origins of nonsocial cultural competences are in the sociocultural worlds or, more specifically, in the culturally constituted practices and meanings available in given regions and groups (e.g., Fiske et al., 1998; Markus & Kitayama, in press; Nisbett et al., 2001). Yet, to argue for this cultural constructionist view only begs the question of where culture comes from: How have the very practices, customs, and meaning systems that make up culture been developed,

selected, and institutionalized? To make the matter even more complicated, it would seem likely that the very cultural competences at issue, say, divergent weighting of object versus context, are significantly implicated in the selection and development of the attendant cultural customs, practices, and their configurations. Exploring the process of emergence is a significant new direction for future research.

REFERENCES

- Adams, G., & Markus, H. R. (2001). Culture as patterns: An alternative approach to the problem of reification. *Culture & Psychology, 7*, 283–296.
- Aoki, M. (2001). *Toward a comparative institutional analysis*. Cambridge, MA: MIT Press.
- Arterberry, M. E., & Kellman, P. J. (2000). *Cradle of knowledge: Development of perception in infancy*. Cambridge, MA: MIT Press.
- Bandura, A. (1997). *Self-efficacy in changing societies*. New York: Cambridge University Press.
- Bourdieu, P. (1977). *Outline of a theory of practice*. Cambridge, England: Cambridge University Press.
- Boyd, R., & Richardson, P. J. (1985). *Culture and the evolutionary process*. Chicago: University of Chicago Press.
- Brewer, M. B., & Gardner, W. L. (1996). Who is this “we”? Levels of collective identity and self representations. *Journal of Personality and Social Psychology, 71*, 83–93.
- Bruner, J. (1957). On perceptual readiness. *Psychological Review, 64*, 123–152.
- Bruner, J. (1990). *Acts of meaning*. Cambridge, MA: Harvard University Press.
- Bruner, J., & Goodman, C. C. (1947). Value and need as organizing factors in perception. *Journal of Abnormal and Social Psychology, 42*, 33–44.
- Choi, I., & Nisbett, R. E. (1998). Situational salience and cultural differences in the correspondence bias and the actor-observer bias. *Personality and Social Psychology Bulletin, 24*, 949–960.
- Cole, M. (1996). *Cultural psychology: A once and future discipline*. Cambridge: Harvard University Press.
- Deci, E. L., & Ryan, R. M. (1995). Human autonomy: The basis for true self-esteem. In M. H. Kernis (Ed.), *Efficacy, agency, and self-esteem* (pp. 31–49). New York: Plenum Press.
- Duffy, S., & Kitayama, S. (2003). [Japanese, Chinese, and American responses in a line estimation task]. Unpublished raw data.
- Durham, W. H. (1991). *Coevolution: Genes, culture and human diversity*. Palo Alto, CA: Stanford University Press.
- Fiske, A., Kitayama, S., Markus, H. R., & Nisbett, R. E. (1998). The cultural matrix of social psychology. In D. Gilbert, S. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (4th ed., pp. 915–981). San Francisco: McGraw-Hill.

- Gay, J., & Cole, M. (1967). *The new mathematics and an old culture*. New York: Holt, Rinehart & Winston.
- Gilbert, D. T., & Malone, P. S. (1995). The correspondence bias. *Psychological Bulletin*, *117*, 21–38.
- Gould, S. J. (1999). A critique of Heckhausen and Schultz's (1995) life-span theory of control from a cross-cultural perspective. *Psychological Review*, *106*, 597–604.
- Hallowell, A. I. (1955). *Culture and experience*. Philadelphia: University of Pennsylvania Press.
- Heckhausen, J., & Schulz, R. (1995). A life-span theory of control. *Psychological Review*, *102*, 284–304.
- 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., & Bargh, J. A. (1987). Social cognition and social perception. *Annual Review of Psychology*, *38*, 369–425.
- Hong, Y., Morris, M., Chiu, C., & Benet-Martinez, V. (2000). Multicultural minds: A dynamic constructivist approach to culture and cognition. *American Psychologist*, *55*, 709–720.
- Huttenlocher, J., Hedges, L., & Duncan, S. (1991). Categories and particulars: Prototype effects in estimating spatial location. *Psychological Review*, *95*, 471–484.
- Huttenlocher, J., Hedges, L., & Vevea, J. (2000). Why do categories affect stimulus judgment? *Journal of Experimental Psychology: General*, *129*, 220–241.
- Ishii, K., Reyes, J. A., & Kitayama, S. (2003). Spontaneous attention to word content versus emotional tone: Differences among three cultures. *Psychological Science*, *14*(1), 39–45.
- Iyengar, S. S., & Lepper, M. R. (1999). Rethinking the value of choice: A cultural perspective on intrinsic motivation. *Journal of Personality and Social Psychology*, *76*, 349–366.
- Ji, L. J., Peng, K., & Nisbett, R. E. (2000). Culture, control, and perception of relationships in the environment. *Journal of Personality and Social Psychology*, *78*, 943–955.
- Jones, E. E. (1979). The rocky road from act to disposition. *American Psychologist*, *34*, 107–117.
- Kato, N. (1965). The validity and reliability of new rod frame test. *Japanese Psychological Research*, *4*, 120–125.
- Kahneman, D. (1973). *Attention and effort*. Englewood Cliffs, NJ: Prentice-Hall.
- Karasawa, M. (2001). A Japanese perception of self and others: Self-critical and other-enhancing biases. *Japanese Journal of Psychology*, *72*, 195–203.
- Kawamura, T., Kitayama, S., Greenholtz, J., & Lehman, D. (2003). *Framed line test and acculturation effect: A preliminary study*. Unpublished data, Kyoto University.
- Kitayama, S. (2002). Cultural and basic psychological processes: Toward a system view of culture. *Psychological Bulletin*, *128*, 89–96.

- Kitayama, S., Duffy, S., Kawamura, T., & Larsen, J. T. (2003). Perceiving an object and its context in different cultures: A cultural look at New Look. *Psychological Science*, *14*, 201–206.
- Kitayama, S., & Ishii, K. (2002). Word and voice: Spontaneous attention to emotional utterances in two languages. *Cognition and Emotion*, *16*, 29–59.
- Kitayama, S., Karasawa, M., & Mesquita, B. (in press). Collective and personal processes in regulating emotions: Emotion and self in Japan and the U.S. In P. Philippot & R. S. Feldman (Eds.), *The regulation of emotion*. Hillsdale, NJ: Erlbaum.
- Kitayama, S., & Markus, H. R. (1999). Yin and yang of the Japanese self: The cultural psychology of personality coherence. In D. Cervone & Y. Shoda (Eds.), *The coherence of personality: Social cognitive bases of personality consistency, variability, and organization* (pp. 242–302). New York: Guilford Press.
- Kitayama, S., & Markus, H. R. (2000). The pursuit of happiness and the realization of sympathy: Cultural patterns of self, social relations, and well-being. In E. Diener & E. Suh, (Eds.), *Subjective well-being across cultures* (pp. 113–116). Cambridge, MA: MIT Press.
- Kitayama, S., & Markus, H. R., & Matsumoto, H. (1995). Culture, self, & emotion: A cultural perspective on “self-conscious” emotions. In J. P. Tangney & K. W. Fisher (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride*. (pp. 439–464). New York: Guilford Press.
- 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.
- Kitayama, S., Nakama, D., & Saitoh, K. (2003). *Culture, self, and social support*. Unpublished data, Kyoto University.
- Kitayama, S., & Uchida, Y. (2003). Explicit self-criticism and implicit self-regard: Evaluating self and friend in two cultures. *Journal of Experimental Social Psychology*, *39*, 476–482.
- Kuhnen, U., Hannover, B., & Schubert, B. (2001). The semantic-procedural-interface model of the self: The role of self-knowledge for context-dependent versus context-independent modes of thinking. *Journal of Personality and Social Psychology*, *80*, 397–409.
- Kuhnen, U., & Oyserman, D. (2002). Thinking about the self influences thinking in genera: Cognitive consequences of salient self-concept. *Journal of Experimental Social Psychology*, *38*, 492–499.
- Lee, F., Hallahan, M., & Herzog, T. (1996). Explaining real life events: How culture and domain shape attributions. *Personality and Social Psychology Bulletin*, *22*, 732–741.
- Lewin, K. (1936). *Principles of topological psychology* (1st ed.). New York: McGraw-Hill.
- Lucy, J., & Gaskins, S. (2000). Grammatical categories and the development of classification preferences: A comparative approach. In S. Levinson & M. Bowerman

- (Eds.), *Language acquisition and conceptual development* (pp. 257–283). Cambridge, England: Cambridge University Press.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Markus, H. R., & Kitayama, S. (1998). The cultural psychology of personality. *Journal of Cross-Cultural Psychology*, 29, 32–61.
- Markus, H. R., & Kitayama, S. (in press). Models of agency: Sociocultural diversity in the construction of action. In *Nebraska Symposium on Motivation*.
- Masuda, T., & Kitayama, S. (2002). *Culture and correspondence bias*. Unpublished manuscript, University of Michigan.
- Masuda, T., & Nisbett, R. A. (2001). Attending holistically versus analytically: Comparing the context sensitivity of Japanese and Americans. *Journal of Personality and Social Psychology*, 81, 922–934.
- McCandliss, B. D., Fiez, J. A., Protopapas, A., Conway, M., & McClelland, J. L. (2002). Success and failure in teaching the [r]-[l] contrast to Japanese adults: Predictions of a Hebbian model of plasticity and stability in spoken language perception. *Cognitive, Affective, and Behavioral Neuroscience*, 2, 89–108.
- Miller, D. T. (1999). The norm of self-interest. *American Psychologist*, 54, 1053–1060.
- Miller, J. G. (1984). Culture and the development of everyday explanation. *Journal of Personality and Social Psychology*, 46, 961–978.
- Minoura, Y. (1990). A sensitive period for the incorporation of a cultural meaning system: A study of Japanese children growing up in the United States. *Ethos*, 20, 304–339.
- Miyamoto, Y., & Kitayama, S. (2002). Cultural variation in correspondence bias: The critical role of attitude diagnosticity of socially constrained behavior. *Journal of Personality and Social Psychology*, 83, 1239–1248.
- Miyawaki, K., Strange, W., Verbrugge, R., Liberman, A., Jenkins, J. J., & Fujimura, O. (1975). An effect of linguistic experience: The discrimination of [r] and [l] by native speakers of Japanese and English. *Perception & Psychophysics*, 18, 331–340.
- Morling, B., Kitayama, S., & Miyamoto, Y. (2002). Cultural practices emphasize influence in the U.S. and adjustment in Japan. *Personality and Social Psychology Bulletin*, 28, 311–323.
- Morling, B., Kitayama, S., & Miyamoto, Y. (in press). American and Japanese women use different coping strategies during normal pregnancy. *Personality and Social Psychology Bulletin*.
- Morris, M. W., Menon, T., & Ames, D. R. (2001). Culturally conferred conceptions of agency: A key to social perception of persons, groups, and other actors. *Personality and Social Psychology Review*, 5, 169–182.
- 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.

- Nisbett, R. E., & Cohen, D. (1996). *Culture of honor: The psychology of violence in the South*. Denver, CO: Westview Press.
- Nisbett, R. E., Peng, K., Choi, I., & Norenzayan, A. (2001). Culture and systems of thought: Holistic vs. analytic cognition. *Psychological Review*, *108*, 291–310.
- Norenzayan, A., Smith, E. E., Kim, B. J., & Nisbett, R. E. (2002). Cultural preferences for formal versus intuitive reasoning. *Cognitive Science*, *26*, 653–684.
- Plaut, V., Markus, H. R., & Lachman, M. E. (2002). Place matters: Consensual features and regional variation in American well-being and self. *Journal of Personality and Social Psychology*, *83*, 160–184.
- Polanyi, K. (1957). *The great transformation: The political and economic origins of our time*. Boston: Beacon Press.
- Rivers, W. H. R. (1901). Physiology and psychology. In A. C. Haddon (Ed.), *Report of the Cambridge anthropological expedition to the Torres Straits* (Vol. 2). Cambridge, England: Cambridge University Press.
- Ross, L., & Nisbett, R. E. (1991). *The person and the situation: Perspective of social psychology*. New York: McGraw-Hill.
- Rozin, P., & Schull, J. (1988). The adaptive-evolutionary point of view in experimental psychology. In R. C. Atkinson, R. J. Herrnstein, G. Lindzey, & R. D. Luce (Eds.), *Handbook of experimental psychology* (pp. 503–546). New York: Wiley.
- Sampson, E. E. (1988). The debate on individualism: Indigenous psychologies of the individual and their role in personal and societal functioning. *American Psychologist*, *43*, 15–22.
- Sampson, E. E. (2000). Reinterpreting individualism and collectivism: Their religious roots and monologic versus dialogic person-other relationship. *American Psychologist*, *55*, 1425–1432.
- Sanchez-Burks, J. (2002). Protestant relational ideology and (in)attention to relational cues in work settings. *Journal of Personality and Social Psychology*, *83*, 919–929.
- Seligman, M. A. (1970). On the generality of the laws of learning. *Psychological Review*, *77*, 406–418.
- Shore, B. (1996). *Culture in mind: Cognition, culture and the problem of meaning*. New York: Oxford University Press.
- Shweder, R. A. (1991). *Thinking through culture: Expeditions in cultural psychology*. Cambridge, MA: Harvard University Press.
- Shweder, R. A., & Bourne, E. J. (1984). Does the concept of the self vary cross-culturally? In R. A. Shweder & R. A. Levine (Eds.), *Culture theory: Essays on mind, self, and emotion* (pp. 158–199). New York: Cambridge University Press.
- Shweder, R. A., & Sullivan, M. A. (1993). Cultural psychology: Who needs it? *Annual Review of Psychology*, *44*, 497–523.
- Spelke, E. (1990). Principles of object perception. *Cognitive Science*, *14*(1), 29–56.
- Sperber, D. (1985). Anthropology and psychology: Towards an epidemiology of representations. *Man*, *20*, 73–89.

- Sperber, D. (1996). *Explaining culture: A naturalistic approach*. Oxford, England: Blackwell.
- Sperber, D., & Wilson, D. (1986). *Relevance, communication and cognition*. New York: Academic Press.
- Takano, Y., & Osaka, E. (1999). An unsupported common view: Comparing Japan and the U.S. on individualism/collectivism. *Asian Journal of Social Psychology*, 2, 311–341.
- Taylor, S. E., & Brown, J. D. (1988). Illusion and well-being: A social psychological perspective on mental health. *Psychological Bulletin*, 103, 193–210.
- Titchener, E. H. (1916). On ethnological tests of sensation and perception with special reference to the Cambridge University expedition to the Torres Straits. *Proceedings of the American Philosophical Society*, 55, 204–236.
- Tomasello, M. (1999). *The cultural origins of human cognition*. Cambridge, MA: Harvard University Press.
- Triandis, H. C. (1989). The self and social behavior in differing cultural contexts. *Psychological Review*, 96, 506–520.
- Uttal, D. (1994). Preschoolers' and adults' scale translation and reconstruction of spatial information acquired from maps. *British Journal of Developmental Psychology*, 12, 259–275.
- Weisz, J. R., Rothbaum, F. M., & Blackburn, T. C. (1984). Standing out and standing in: The psychology of control in America and Japan. *American Psychologist*, 39, 955–969.
- Werker, J., & Tees, R. C. (1984). Cross-language speech perception: Evidence from the first year of life. *Infant Behavior and Development*, 7(1), 49–63.
- Wilson, E. O. (1999). *Consilience: The unity of knowledge*. New York: Vintage Books.
- Witkin, H. A. (1967). A cognitive-style approach to cross-cultural research. *International Journal of Psychology*, 2, 233–250.
- Witkin, H. A., Lewis, H. B., Kertzman, M., Machover, K., Meissner, P. B., & Karp, S. A. (1954). *Personality through perception*. New York: Harper.
- Wittenbrink, B., Judd, C. M., & Park, B. (2001). Spontaneous prejudice in context: Variability in automatically activated attitudes. *Journal of Personality and Social Psychology*, 81, 815–827.
- Yamagishi, T. (1986). The provision of a sanctioning system as a public good. *Journal of Personality and Social Psychology*, 51, 110–116.