



Culturally based lay beliefs as a tool for understanding intergroup and intercultural relations[☆]

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ABSTRACT

Dialectical thinking represents a constellation of culturally based lay theories about the nature of the world in which social objects are viewed as inherently contradictory, fundamentally interconnected, and in constant flux. In this paper, we argue that dialectical thinking gives rise to cultural differences in numerous social cognitive phenomena (e.g., stereotyping) that are known to influence intergroup and intercultural relations. Specifically, we present psychological evidence relating dialectical thinking to cultural (East–West) differences in social categorization, causal attribution, group perception, stereotyping, ingroup/outgroup attitudes, cooperative/competitive behavior, and cross-cultural adjustment and competence. Dialectical thinkers are hypothesized, for example, to be less vulnerable to essentialistic, rigid thinking about social groups and more open to stereotype change and intercultural adaptation. We note important topics in need of further investigation and offer predictions regarding possible cultural differences in as yet unexplored social cognitive domains.

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1. Introduction

Culture may be conceptualized as a set of folk theories or lay belief systems that are developed through an individual's social experiences. These theories help social perceivers understand and make inferences about the individuals and groups they interact with in their everyday social environment, as well as people they encounter from different countries and cultures. Lay theories influence basic cognitive processes, such as person and group perception, causal attribution for social behavior, and judgment and decision making, among others (Hong, Levy, & Chiu, 2001; Lehman, Chiu, & Schaller, 2004; Norenzayan, Choi, & Nisbett, 2002; Peng, Ames, & Knowles, 2001). This approach to studying cultural differences – as mediated by lay theories (Hong & Chiu, 2001; Hong & Mallorie, 2004) – has guided recent research into a wide variety of domains, including intergroup and intercultural relations (e.g., Hong et al., 2001; Menon, Morris, Chiu, & Hong, 1999; Oyserman & Sorensen, 2009).

The lay theory perspective provides a middle level of analysis between individuals and the national or cultural groups to which they belong (Morris, Menon, & Ames, 2001). That is, rather than locating the origins of individual differences

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within individuals themselves (free of their cultural context) or within cultures (glossing over intracultural heterogeneity), researchers can locate underlying causal mechanisms in lay theories, beliefs that are maintained in individual minds but fostered and sustained by cultural contexts. Lay beliefs are transmitted through various cultural institutions, including religion, philosophy, and literature (e.g., the *I-Ching* or *Book of Changes*; Legge, 1964), the popular media (e.g., advertising, television, cinema), and cultural symbols (e.g., yin/yang). By locating the source of many cultural differences in different folk epistemologies and ways of viewing the world, a new level of understanding of culture and social cognition may be achieved. This may have particular relevance for intergroup and intercultural relations. Culturally based lay beliefs influence how individuals understand, interact, communicate, and competently relate to the members of the ethnic, national, political, religious, and other collectives that surround them. Naïve dialecticism (Peng & Nisbett, 1999; Spencer-Rodgers, Williams, & Peng, 2010) represents one constellation of culturally based lay beliefs that can provide new insight into these topics.

The effects of naïve dialecticism or “dialectical thinking” have been studied extensively in the domains of self-perception, emotional complexity/ambivalence, and psychological well being (for a review, see Spencer-Rodgers et al., 2010). Considerably less scholarship has been devoted to the role of dialecticism in how people think about others, such as in intergroup or intercultural contexts. Because the empirical evidence is limited, many of the hypotheses put forth in this article are necessarily tentative. In the following sections, we offer predictions and summarize previous findings on cultural (East–West) differences in various social cognitive phenomena that have been shown to differ between Eastern and Western cultures, and connect them to the relatively stronger presence of dialectical thinking among East Asians. The topics include social categorization, attribution for individual and group behavior, group perception and impression formation, stereotype maintenance and change, intergroup attitudes (e.g., ingroup/outgroup evaluations), cooperative/competitive behavior, and cross-cultural adjustment and competence. We hope that this review may stimulate further research into dialectical thinking, especially in areas of interest to scholars of intercultural relations.

1.1. Naïve dialecticism

Naïve dialecticism (Spencer-Rodgers et al., 2010) is based on three main concepts: (a) the concept of *change* (reality is not static, it is a process and is in constant flux), (b) the concept of *contradiction* (reality is not precise, it is complex and paradoxical), and (c) the concept of *holism* (nothing is isolated; all phenomena in the universe are interconnected). With its origins in Buddhist, Daoist, and Confucian philosophy, naïve dialecticism is more frequently found among members of East Asian than Western cultures. Naïve dialecticism has broad implications for human cognition, emotion, and behavior, and influences the manner in which lay people in East Asian countries (notably, China, Japan, and Korea) deal with contradiction and change in the self, others, and the physical environment (Nisbett, Peng, Choi, & Norenzayan, 2001; Peng & Nisbett, 1999).

The dialectical concept of change asserts that the universe is in a state of flux and that all objects, events, and states of being in the world are forever oscillating between two extremes or opposites (yin and yang). From this perspective, all phenomena are composed of elements that are harmoniously counterbalanced (e.g., prosperity/adversity, joy/sorrow, health/illness), with each element perpetually transforming into its counterpart over time (e.g., prosperity will become adversity and vice versa). As a result, East Asians, in comparison to North Americans, take a broader temporal perspective and are more likely to expect and predict cyclical change (Ji, Nisbett, & Su, 2001). For example, Chinese college students estimate a higher probability than do Canadian college students that financial stock will grow and decline in value over time. North Americans, in contrast, including experienced investors, tend to predict that recent trends will continue and they overlook longer price patterns when making selling decisions (Alter & Kwan, 2009; Ji, Zhang, & Guo, 2008). Another consequence of the dialectical proclivity to expect and anticipate change is that individuals high in dialectical thinking, in various nations, demonstrate greater variability in their self-judgments and emotions than do those low in dialectical thinking (Spencer-Rodgers et al., 2010), as well as greater change in their actual behaviors as rated by outside observers (e.g., Chinese supervisor ratings of employees' work performance; Chen, Wang, Huang, & Spencer-Rodgers, 2012).

According to the related concept of contradiction, all objects and events in the universe are thought to comprise opposing elements. Because contradiction is regarded as natural and ubiquitous, dialectical thinkers are less likely to recognize contradiction in themselves and others or to seek to reconcile incongruities. Considerable scholarship shows that Chinese, Japanese, and Koreans are more tolerant of apparent contradiction than are Americans (Choi & Choi, 2002; Peng & Nisbett, 1999). An apparent contradiction occurs when two propositions are seemingly logically inconsistent; if one proposition is true, then the other is probably – but not inevitably – false (e.g., “Human beings are inherently good” and “Human beings are inherently bad”). When confronted with such contradiction, East Asians are more likely than Americans to endorse both propositions, finding each to be valid, without the need for resolution (e.g., “Human beings are both inherently good and bad at the same time”). Westerners, who are guided by Greek Aristotelian logic, exhibit more polarized judgments when faced with apparent contradiction (Norenzayan, Smith, Kim, & Nisbett, 2002; Peng & Nisbett, 1999). In order to avoid or reduce cognitive dissonance (Festinger, 1957), they seek to synthesize conflicting information by rejecting the least, in favor of the most, reasonable argument, sometimes to the point of exaggerating their views in favor of their preferred perspective.

Lastly, the concept of holism has been shown to differentiate East Asian thought from the relatively analytic Western thought (Nisbett et al., 2001). For a person who perceives the world holistically, all components are interconnected, and a single object cannot be recognized or understood without simultaneous perception of the context in which it is embedded. Whereas Westerners tend to focus on the attributes of a single, salient person or object, individuals with holistic mentalities attend more to the larger field in which persons and objects are embedded (Ji, Nisbett, & Zhang, 2004; Masuda & Nisbett,

2001; Miyamoto, Nisbett, & Masuda, 2006). They are more sensitive to patterns of association and tend not to dissociate phenomena from their natural environment. To illustrate, early cross-cultural research using Rorschach tests revealed that Chinese Americans were more likely than European Americans to give “whole-card” responses rather than responses that focused on a single part of the card (Abel & Hsu, 1949). In a more recent, parallel finding, Masuda and Nisbett (2001) showed that Americans tended to recall underwater scenes by describing the primary fish, whereas Japanese descriptions were more likely to comprise the scene as a whole. Japanese recognize previously seen stimuli better when they are presented in their original setting (e.g., an animal in a wildlife setting) than when they are presented in isolation (e.g., an animal against a white background). This manipulation does not improve memory among Americans, however, suggesting that Japanese attend more to contextual information than do the latter (Masuda & Nisbett, 2001). These findings support the idea that East Asians’ lay theories lead them to perceive novel situations in their entirety. In contrast, non-dialectical or “linear” thinkers (Peng & Nisbett, 1999) may selectively attend to the components that seem most relevant or focal. East Asians also are more adept at recognizing interconnections among objects and events: they estimate stronger associations between two random events, are better at detecting covariation, and are more confident about their covariation judgments, compared to Americans (Ji, Peng, & Nisbett, 2000).

Naïve dialecticism represents a belief system that is more commonly – but not exclusively – held by members of East Asian cultures. Individuals holding dialectical beliefs certainly exist outside of East Asia, just as not all East Asians espouse dialectical lay theories with equal strength. In this sense, we take the “dynamic constructivist” perspective advocated by Hong and Mallorie (2004) that seeks to understand cultural differences as mediated by differences in social cognitive processes, such as lay theories. For example, East–West differences in causal attributions for individual behavior are mediated by scores on a measure of dialectical self beliefs (Spencer-Rodgers et al., 2011; Ma-Kellams, Spencer-Rodgers, & Peng, 2011), which asks respondents about their endorsement of such statements as “I sometimes believe two things that contradict each other” (representing the concept of contradiction) and “I often find that my beliefs and attitudes will change under different contexts” (representing the concept of change). Studies indicate that there are significant individual differences in the extent to which people, in various cultures and countries, endorse these statements (Spencer-Rodgers, Peng, Wang, & Hou, 2004).

Importantly, naïve dialecticism is conceptualized as a constellation of lay beliefs about the nature of the world, rather than as a global way of thinking or cognitive style (e.g., field dependent/independent cognitive styles; Witkin, Moore, Goodenough, & Cox, 1977). Cognitive styles differ from lay theories in that they are domain-general (e.g., they operate for perceptions of the self, social groups, and the physical environment), and they are applied consistently across all contexts (Levy, Plaks, Hong, Chiu, & Dweck, 2001). Indeed, dialectical beliefs can be manipulated experimentally among members of various national and ethnic groups (Cheng, 2009; Ma-Kellams et al., 2011; Spencer-Rodgers et al., 2004), suggesting that they represent cognitive structures that can be situationally activated. For instance, European Americans who were primed with the yin/yang symbol made more change-sensitive stock market and weather predictions than did control participants (Alter & Kwan, 2009), and Chinese participants primed with dialectical thinking subsequently exhibited ingroup-derogating attributions for an individual’s behavior, whereas those primed with linear thinking made ingroup-favoring attributions (Ma-Kellams et al., 2011). Another central feature of naïve dialecticism is that it is thought to operate outside of conscious awareness. As with other lay theories (e.g., incremental and entity theories, Dweck, Chiu, & Hong, 1995), individuals are not necessarily aware that they espouse these beliefs or that their belief systems guide their judgments and behaviors.

By taking the lay theory approach to culture, naïve dialecticism does not seek to replace other theoretical explanations for cultural differences, but rather to complement them, and to extend our knowledge of the cultural dimensions on which individuals and groups vary. Thus, we position naïve dialecticism as complementary to research in the value tradition (e.g., individualism/collectivism; Triandis, 1995), the self-tradition (e.g., independent/interdependent self-construal; Markus & Kitayama, 1991), and other traditions (e.g., social axioms; Leung & Bond, 2004). Following the “cultural syndrome” perspective in psychology (Oyserman & Sorensen, 2009), we believe that these overarching cultural variables can have a unique influence on people’s thoughts, emotions, and behaviors in different domains and contexts. Hence, an East Asian individual may take a highly dialectical approach to the self, but a non-dialectical, linear view of social groups, and her scores on the Dialectical Self Scale may predict her level of critical/analytical thinking (Lun, Fischer, & Ward, 2010), but not overall academic performance (Bestwick, 2008) or level of creative thinking (Paletz & Peng, 2009).

1.2. Social categorization

The process by which individuals categorize and classify other people is essential to understanding intergroup and intercultural relations. Research in Western, non-dialectical cultures shows that the mere categorization of objects produces ingroup/outgroup distinctions such that ingroups are more highly valued and outgroups are derogated (Tajfel & Turner, 1986). A range of positive and negative characteristics is ascribed to the groups and then the attributes are applied to all members of the groups (Vescio, Hewstone, Crisp, & Rubin, 1999). These cognitive structures or stereotypes subsequently guide evaluative judgments and intergroup behavior (Tajfel & Turner, 1986). Culturally based lay theories may influence each of these processes: the creation of social categories, the nature, structure, and function of categorical knowledge, and the development, transmission, application, and alteration of stereotypic beliefs over time (Choi, Nisbett, & Smith, 1997; Kashima, 2000; Morris, Nisbett, & Peng, 1995; Williams & Eberhardt, 2008; Williams & Spencer-Rodgers, 2010).

Western and East Asian cultures differ significantly with respect to the nature and structure of their categories and their use of categorical knowledge. Because Western folk epistemologies emphasize knowable, immutable truths and isolatable facts and ideas, Westerners tend to organize their world in terms of categories and rules (Choi, Nisbett, & Norenzayan, 1999; Norenzayan, Smith et al., 2002). Objects are classified according to their salient features, formal rules are developed regarding category membership, all objects are perceived as belonging to distinct categories, and categorical information is readily used in judgment and decision-making. East Asian cultures, on the other hand, tend to organize their world in terms of relationships, rather than categories. They learn arbitrary categories less readily from abstract rules, they prefer intuitive to formal reasoning strategies, and they are less likely to rely on categorical knowledge when making causal attributions (Choi et al., 1999; Norenzayan, Smith et al., 2002). As a result, East Asians, relative to Westerners, might be less likely to seek to categorize social objects.

There are qualitative differences, moreover, between the categories employed by members of East Asian and Western cultures. Because all phenomena are perceived as dynamic and fluid, members of dialectical cultures may view social categories as more changeable and diffuse (with fuzzier, less distinct boundaries). When asked to create (and justify) a category combining two of three possible social objects (e.g., “mother,” “father,” “child,”), East Asians are more likely to focus on relationships between category memberships (e.g., “mother and child, because the mother takes care of the child”), rather than logical similarities or shared properties (e.g., “mother and father, because they are both adults”) (Ji et al., 2004; Unsworth, Sears, & Pexman, 2005). Thus, mutually exclusive social categories based on skin color (e.g., “Blacks”), religion (e.g., “Mormons”), or other shared properties, rather than categories based on inter relations (e.g., “people who work for me”), may be less common in East Asian cultures.

This tendency among members of Western cultures to perceive objects as separate from their context may help explain their increased reliance on formal rules for forming and learning categories, compared to East Asians (Choi et al., 1997). To use the example of ethnic categories, American culture has in many cases established distinct, abstract rules for category membership—such as the “one drop rule” holding that a person is Black if he or she has any African ancestry, or the current convention of allowing a person to claim Native American category membership if he or she is of at least “1/8” Native heritage. East Asians may be less reliant on such formal rules for determining ethnic category membership.

2. Causal attribution for individual and group behavior

In addition to categorization, culturally grounded lay theories influence causal attribution of social behavior. In explaining the behavior of individuals, East Asians are less likely than Westerners to exhibit the fundamental attribution error (Ross, 1977): they are less inclined to attribute enduring dispositions to individuals and to use those dispositions as causal explanations, preferring instead to explain behavior in terms of the social context. These cultural differences have been confirmed in numerous studies (Chiu, Hong, & Dweck, 1997; Choi et al., 1999; Lee, Hallahan, & Herzog, 1996; Menon et al., 1999; Norenzayan, Choi et al., 2002). To illustrate, in one study, Morris and Peng (1994) compared American and Chinese participants' explanations for mass murders. When providing explanations for these catastrophic events, Americans tended to invoke personal factors (e.g., “the man was mentally unstable”), whereas Chinese participants placed greater weight on situational variables (e.g., “the gunman had recently been fired from his job”) and the societal context (e.g., “the availability of guns”). Cultural differences in attribution extend to the behavior of groups as well. In the ultimate attribution error (Pettigrew, 1979), perceivers explain negative behaviors in terms of enduring dispositions (i.e., internal, stable, and global causal factors) for outgroups and as situationally caused (i.e., external, unstable, and specific causal factors) for ingroups. These group-serving biases are likewise less prevalent among East Asians than Americans (Hewstone & Ward, 1985; Morris & Peng, 1994).

Cultural differences in dispositional versus situational causal attribution extends even to explanations of the behavior of computer-generated objects and perceptions of physical phenomena. In computer simulation studies, Americans perceive more internal, whereas Chinese perceive more contextual, influences on the movements of fish (Morris et al., 1995; Morris & Peng, 1994). Paralleling culture-specific lay theories of social behavior, Chinese tend to explain the behavior of physical objects in terms of external forces (e.g., “objects float due to water pressure”), whereas Americans emphasize innate properties (e.g., “objects float because they are buoyant”) (Peng & Knowles, 2003). Peng and Knowles (2003) demonstrated with bicultural participants that these effects are due to culture: Chinese Americans whose identity as Asians was primed endorsed external factors, whereas those whose identity as Americans was cognitively accessible, cited internal causes when explaining an object's behavior.

The experimental findings outlined above can be readily explained via naïve dialecticism, and more specifically, the concepts of change and contradiction. These concepts imply that dialectical thinkers will hold more open and flexible views of people, objects, and events than do linear thinkers. If the universe is constantly changing, then individual characteristics and behaviors should also vary substantially over time and context. East Asians are more likely to believe that personality is malleable (Norenzayan, Choi et al., 2002) and that their own behavior is changeable and inconsistent (Choi & Choi, 2002; Spencer-Rodgers, Boucher, Peng, & Wang, 2009). If East Asians expect people to exhibit highly variable and contradictory behaviors, they should be less likely to explain people's actions in terms of innate personality traits and stable, internal forces. The lay theories of East Asian cultures are also more holistic and complex than are those of Western cultures. If all people, objects, and events in the universe are interconnected, it follows that East Asians will perceive individual characteristics and behaviors as influenced by a multitude of causal factors.

The concept of holism may be especially germane to cultural differences in causal attribution. Scholars have examined the underlying cognitive mechanisms that give rise to cultural variation in the fundamental attribution error. Because their cognitive processes are relatively holistic, East Asians attend more to situational constraints on behavior and take into account a greater amount of information when making causal attributions. Specifically, they make an initial causal judgment and then adjust that judgment in response to contextual factors (Choi et al., 1999). These adjustment processes, moreover, appear to be relatively automatic (Knowles, Morris, Chiu, & Hong, 2001). Choi and colleagues (Choi, Dalal, Kim-Prieto, & Park, 2003) have also shown that Koreans consider more information than do Americans when making causal attributions and there is a positive correlation between the amount of information considered and external attributions for an individual's behaviors.

3. Group perception and impression formation

A vast literature has documented the content of ingroup and outgroup stereotypes among cultural groups in nations around the world (Bond, 1986; Marin & Salazar, 1985). One central and as yet unresolved question in cultural psychology, however, concerns the nature and prevalence of stereotyping in East Asian and Western cultures. All things being equal, do East Asians stereotype more or less than do Westerners? And are the antecedents and consequences of stereotyping culture-specific or culturally universal? Given the paucity of cross-cultural research on stereotyping processes, as separate from the content of stereotypic beliefs, the following section is necessarily speculative (for a review, see Williams & Spencer-Rodgers, 2010). Moreover, two central cultural models – naïve dialecticism and collectivism (Triandis, 1995) – point to diverging hypotheses regarding the nature and prevalence of stereotyping in East Asian and Western cultures. Consequently, this is an important avenue of new research as researchers uncover the mediators and moderators of cultural differences in basic group perception and stereotyping processes.

A number of factors converge on the notion that East Asian, dialectical thinkers might be less likely to hold stereotypic beliefs about social groups than are Western, non-dialectical thinkers. East Asians may be less inclined to organize social objects in terms of artificial categories (favoring relationships and interconnections instead) and the social categories they employ may be fuzzier, with less distinct boundaries. In accordance with the dialectical concepts of change and contradiction, social objects may be perceived as belonging to multiple, and even mutually exclusive, categories. Furthermore, East Asians have been shown to be less likely to commit the so-called fundamental and ultimate attribution errors. Given the importance of categorization to stereotyping processes (Tajfel & Turner, 1986), one might expect that East Asians would stereotype less than do Westerners. That is, they might be less likely to develop and maintain oversimplified impressions of the characteristics of a group (group stereotyping), and they might be less inclined to use stereotypic knowledge in the formation of an impression about an individual (individual stereotyping).

On the other hand, several cultural factors might lead to greater stereotyping among East Asians (Spencer-Rodgers, Williams, Wang, & Peng, 2007). First, as members of collectivist societies, East Asians are generally more cognizant of and sensitive to the influence of group norms and social roles on the behavior of individuals (Triandis, 1995). Individuals are expected to conform to the needs and expectations of group members, especially those of group leaders. Hence, East Asians may expect greater homogeneity in the characteristics and behaviors of a group's members, and social group membership may be more (accurately) diagnostic of others in the East than the West. For example, knowing that person X is a member of the marketing department at Y Corporation might provide useful information about the physical, personality, and behavioral characteristics of that person. Second, the concept of holism encourages perceivers to view social groups as unified structures that are greater than the individual sum of their parts. The collectivist/interdependent tendency to view groups as uniform and the dialectical tendency to view groups synergistically might lead East Asians to stereotype to the same extent or more than do Westerners.

To illustrate, some research has shown that East Asians do not make fewer dispositional attributions in an absolute sense than do Westerners; rather, they make more attributions to the dispositional properties of groups than do North Americans, whereas the latter make more attributions to the dispositional properties of individuals. In a series of studies, Menon et al. (1999) demonstrated that Hong Kong Chinese attribute causality more to the properties of organizations (e.g., “the group was irresponsible”), whereas Americans focus more on the properties of persons within organizations (e.g., “[person Z] was irresponsible in not completing the work”). In individualist cultures, people are viewed as autonomous units that retain their independence within groups. Consequently, behavior is thought to reflect a person's internal qualities. In collectivist cultures, individuals are viewed primarily as group members and group membership is frequently involuntary. Thus, behavior is thought to reflect group norms, social roles, and situational demands (Menon et al., 1999; Morris et al., 2001; Triandis, 1995). Groups, not individuals, are the principal agents of action.

If East Asians attribute causality more to the dispositional properties of groups than do Westerners (Menon et al., 1999), they may be more likely to hold stereotypic beliefs about groups, at least in the absence of contextual information (Spencer-Rodgers et al., 2007). On the other hand, because their dialectical worldview includes a greater expectation of contradiction and change within social objects, East Asians may be less likely to maintain the relatively stronger stereotypes they initially formed, and their belief systems also may be comprised of more stereotypic and counter-stereotypic knowledge. Further research is needed determine whether dialectical thinkers possess more changeable and contradictory stereotypes than do non-dialectical, linear thinkers.

3.1. Stereotype maintenance and change

Culturally grounded lay theories may affect the manner in which new information is assimilated into existing knowledge structures and the processes through which individuals develop new categories, such as stereotype subtypes. Research in Western cultures shows that information about social groups is often hierarchically organized into broad, superordinate categories (global stereotypes), which can be divided into basic-level categories (subtypes), which can be further broken down into specific exemplars of a category (Brewer, Dull, & Lui, 1981; Devine & Baker, 1991). For example, the superordinate category “Blacks” includes the subtypes “professional Blacks” and “ghetto Blacks” (Brewer et al., 1981). These hierarchical knowledge structures are thought to be rather rigid, stable, and resistant to contradictory evidence (Weber & Crocker, 1983).

A number of theoretical models have been proposed to explain how people respond to individuals who contradict the stereotypes they hold. Western models of stereotype maintenance and change assume that individuals employ a variety of cognitive strategies to preserve their stereotypic beliefs. The subtyping model (Weber & Crocker, 1983) posits that perceivers attempt to maintain their global stereotypes by subtyping the contradictory exemplars of a social category (e.g., “professional Blacks” are viewed as separate from the broader category “Blacks”). Subtypes are viewed as exceptions to the rule, and therefore, as unrepresentative of the category as a whole. In this way, subtyping serves to insulate the global stereotype.

Yet if East Asians more readily tolerate contradiction and favor a more holistic approach to social perception, they might be less likely to subtype exemplars that contradict their stereotypes they hold. Subtyping is a cognitive process that distinguishes between typical and atypical members of a category (Weber & Crocker, 1983). Members of dialectical cultures are less likely to recognize contradiction in others and exhibit less surprise when a person violates their expectations (Choi & Nisbett, 2000). Consequently, they should more readily assimilate contradictory information into existing knowledge structures. If so, cultural differences in reasoning about contradiction may have important implications for strategies aimed at altering cultural stereotypes. For example, a conversion model of stereotype change (Rothbart, 1981), in which disconfirming information is concentrated within a few exemplars of a category, might effect greater stereotype change among dialectical than non-dialectical thinkers.

4. Intergroup attitudes

The East Asian dialectical tendency to tolerate contradiction, including evaluative contradiction (e.g., good/bad, prosperity/adversity, etc.), has been linked to evaluative ambivalence toward a wide range of social objects, including the self. For example, a substantial body of research indicates that East Asians are more dialectical in their self-evaluations than are Westerners, seeing themselves as both “good” and “bad” at the same time (Boucher, Peng, Shi, & Wang, 2009; Spencer-Rodgers et al., 2004). Similarly, naïve dialecticism provides a cogent cultural explanation for the lack of ingroup favoritism sometimes found among some East Asian cultures: If good and bad coexist in all things, then positive and negative elements also must coexist in the self, valued others, and meaningful ingroups. Indeed, East Asians (Chinese and Japanese) typically evaluate their romantic partners, family members, friends, ethnic ingroup members, and country less favorably than do Westerners (Diener, Suh, Smith, & Shao, 1995; Endo, Heine, & Lehman, 2000; Heine & Lehman, 1997; Ma-Kellams et al., 2011; Shiota, Campos, Gonzaga, Keltner, & Peng, 2010).

The effects outlined above have been observed on both explicit and implicit measures, such as the Implicit Association Test (Greenwald, McGhee, & Schwartz, 1998), in which people’s unconscious attitudes are tapped (Boucher et al., 2009; Ma-Kellams et al., 2011; Spencer-Rodgers, Boucher, Peng et al., 2009). This suggests that East–West differences in evaluative ambivalence are not simply due to self-presentation or social desirability concerns. Ma-Kellams and colleagues manipulated people’s lay beliefs by having them read a fabricated scientific news article in support of either dialectical (Confucian) or non-dialectical (Aristotelian) logic, and then assessed their ethnic group attitudes. Specifically, Chinese and European Americans were presented with a series of scenarios describing an ingroup or outgroup member’s negative (rude, dishonest) behaviors, and provided a written explanation for the target’s actions. Ingroup derogation was said to occur when participants attributed the ingroup actor’s behaviors to internal traits and the outgroup actor’s actions to external, situational circumstances. Participants who underwent the dialectical prime made less favorable ingroup attributions and the effect tended to be more pronounced for Chinese than European Americans, presumably because it is easier to prime dialectical thinking among members of a Confucian-based than an Aristotelian-based culture.

Although as yet untested empirically, dialectical thinkers also might exhibit greater evaluative ambivalence toward outgroups, including ethnic and national groups. Rather than reflecting ethnocentrism, historical factors, or realistic group conflict (LeVine & Campbell, 1972; Sherif, 1966), these critical tendencies may be indicative of a dialectical approach to person and group perception. Dialectical cultures are encouraged to recognize both the positive and negative in all things. Consequently, East Asians may expect members of social groups to possess a greater balance of desirable and undesirable qualities.

Likewise, naïve dialecticism may influence the type of information that is regarded as diagnostic about a social object. Dialectical lay beliefs about change and contradiction, in particular, may affect the relative weight that is given to positive, negative, and extreme information about a social target. Prior research indicates that Koreans, relative to their American counterparts, exhibit less surprise when a person violates their expectations (e.g., when a Good Samaritan fails to help a victim in need), and they behave as though they could have predicted the deviant behavior (Choi & Nisbett, 2000). If human

beings are seen as possessing contradictory attributes that are ever-changing, then East Asians may view undesirable and extreme behaviors as less diagnostic of others than do Westerners.

5. Cooperative/competitive behaviors

Considerable scholarship has been devoted to the study of the East Asian preference for compromise and cooperation, especially within organizations, where decision-making and negotiating styles have significant implications for dyadic relations, group dynamics, and conflict management (e.g., Chen et al., 2012; Aaker & Sengupta, 2000; Leung, 1987). Scholars have long known that East Asians show a greater willingness to compromise in bargaining situations than do Westerners (Leung, 1987); however, less research has investigated the precise cultural underpinnings of this phenomenon. We believe that both collectivism and dialecticism contribute to this finding. When presented with a conflict between two opposing parties, members of collectivist cultures (e.g., Hong Kong Chinese), who are concerned with establishing long-term social relationships, adopt a bargaining strategy that seeks resolution through mutually acceptable compromise, whereas members of individualist cultures (e.g., Americans) adopt a more adversarial, competitive strategy that seeks to maximize gains for one side (Leung, 1987). The East Asian preference for compromise and cooperation may also derive from the dialectical tendency to tolerate contradiction, to accept and anticipate change, and to prefer a “middle way” (e.g., Zhong Yong in China; Yao, Yang, Dong, & Wang, 2010). In a computer simulation study on negotiation styles within teams (Keller, Loewenstein, & Jin, 2010), Chinese participants scored higher on the Dialectical Self Scale than did Americans, and scores on the DSS were related to a greater propensity to regard seemingly competitive intentions and behaviors as cooperative. In addition, individuals high in dialecticism were more willing to share information with a potential competitor. Although this research investigated dialectical thinking in the realm of intragroup dynamics, one might hypothesize that the findings would generalize to other types of interpersonal and intergroup interactions.

6. Cross-cultural adjustment and competence

Individuals who study abroad, immigrate to new countries, and work closely with people from diverse cultures must be able to adapt flexibly to innumerable demands. In light of their tolerance of contradiction, ambiguity, and change, dialectical thinkers should be better able to cope and adjust more readily to different cultural contexts. Support for this prediction comes from cross-cultural studies on the self (e.g., self-concept inconsistency; Spencer-Rodgers, Boucher, Peng et al., 2009), social identity (e.g., malleable racial identification; Sanchez, Shih, & Garcia, 2009), and coping (e.g., coping flexibility; Cheng, 2009). Whereas Westerners define the self more in terms of global, internal traits that are stable across situations (Cousins, 1989), East Asians exhibit greater variability in their self-conceptions and behaviors (Chen et al., 2012; Spencer-Rodgers et al., 2010). East Asians (and people high in dialectical thinking in various nations) perceive themselves as possessing contradictory personality traits (e.g., as both “shy” and “outgoing” at the same time; Spencer-Rodgers, Boucher, Mori, Wang, & Peng, 2009), change their self-descriptions in different contexts (English & Chen, 2007; Spencer-Rodgers, Boucher, Peng et al., 2009), and adapt more effectively to changes within organizations (e.g., during the privatization of Chinese state-owned enterprises; Chen et al., 2012). People high in dialecticism also perceive themselves as having more flexible social identities (Sanchez et al., 2009). In a series of cross-sectional studies, participants of mixed Asian ethnic heritage (e.g., Asian/European American) and multiethnic Americans who possessed a dialectical orientation (as measured by the DSS), scored higher on a scale of *malleable racial identification* or the tendency to identify with different ethnic identities depending on the social context (Sanchez et al., 2009). Overall, an unstable ethnic identity was associated with psychological ill health; however, this was not the case for dialectical thinkers, as presumably they have a greater capacity to manage ambiguity and change. Lastly, dialectical thinkers report using a greater variety of coping strategies when dealing with an array of stressful events (Cheng, 2009). In a prospective study with Hong Kong Chinese participants, Cheng (2009) found that dialectal self-beliefs assessed at time 1 predicted greater coping flexibility twelve months later, which in turn, was related to lower state anxiety. Although none of the studies outlined above investigated cross-cultural adjustment and competence, per se, converging evidence suggests that dialectical thinkers may be more capable and resilient when adapting to change. Direct tests of this hypothesis are needed.

Through the process of cross-cultural adjustment, people can come to acquire and assimilate the cognitive styles and lay beliefs of other cultures. Once acquired, and depending on cues in the environment, different cultural frames can be activated via what appears to be largely automatic mechanisms (Hong, Morris, Chiu, & Benet-Martínez, 2000). These cultural frames subsequently can influence people's decision-making, attitudes, and behaviors (Hong et al., 2000). For example, biculturals (e.g., Westernized Hong Kong Chinese) can be primed to adopt an interdependent or independent mind-set in different situations, leading them to exhibit collectivist or individualist behaviors, respectively (Hong, Chiu, & Kung, 1997). It is reasonable to predict that people can similarly acquire dialectical or linear lay beliefs through cross-cultural adaptation. Some evidence for this hypothesis comes from studies with iconic and language primes (Boucher & O'Doud, 2011; Alter & Kwan, 2009). As outlined earlier, North Americans generally are less likely to anticipate and expect cyclical change than are Chinese (Alter & Kwan, 2009; Ji et al., 2001). Alter and Kwan (2009) reasoned, however, that monocultural individuals (in this case, European Americans) who have travelled abroad have been exposed to and influenced by foreign cultures, thus developing an understanding of culturally laden icons, such as the yin/yang symbol (representing change and balance), which when activated, can guide behavior. In an experimental study, European American students were either presented

with the yin/yang or a culturally neutral symbol. European Americans exposed to the dialectical prime and who had travelled overseas (within the past two years) made more change-sensitive stock market decisions, relative to both primed and control participants who had not travelled internationally. These findings suggest that dialectical lay beliefs can be incorporated into the mindset of people from non-dialectical, linear cultures. The converse also can occur: people from dialectical cultures can assimilate linear lay beliefs. Environmental factors (such as the language that is being spoken in a person's immediate environment) can then activate either a dialectical or linear cultural frame, leading to measurable differences in judgment and behavior. To illustrate, Chinese bilinguals living in the United States were randomly assigned to complete a battery of self-assessments in Mandarin or in English, and a control group of European Americans completed the same instruments in English. Chinese participants who responded in Mandarin reported higher scores on the Dialectical Self Scale and more contradictory self-judgments, relative to Chinese participants who responded in English, and the latter participants' scores closely paralleled those of European Americans (Boucher & O'Doud, 2011).

7. Conclusion

In this article, we have argued that culturally based lay beliefs, such as dialectical lay beliefs, can inform our understanding of cultural variation in a wide variety of social cognitive phenomena that are known to influence intergroup and intercultural relations. Dialectical thinkers, who reside primarily in East Asian countries, perceive the world and its social and nonsocial objects as inextricably interconnected, internally inconsistent, and ever-changing. As a result, East Asians differ, sometimes strikingly, from Westerners in terms of how they approach such diverse tasks as categorizing human beings, explaining the actions of individuals and the social collectives they belong to, and evaluating social groups. For example, East Asian dialectical thinkers tend to categorize people according to perceived relationships rather than abstract rules (concept of holism) and they exhibit evaluative ambivalence rather than favoritism toward ingroups (concept of contradiction). Naïve dialecticism can explain and integrate a number of findings in the cross-cultural literature, although much work remains to be done. We hope that this article will be generative for scholars interested in understanding how people from around the world tackle the problem of perceiving, interacting, communicating and competently relating to others in a complex global world.

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