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Cultural Processes: An Overview

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Bickhard (2004) has made the following comments on the development of science:

> Every science passes through a phase in which it considered its basic subject matter to be some sort of substance or structure. Fire was identified with phlogiston; heat with caloric; and life with vital fluid. Every science has passed beyond that phase, recognizing its subject matter as being some sort of process: combustion in the case of fire; random thermal motion in case of heat; and certain kinds of far from thermodynamic equilibrium in the case of life. (p. 122)

In the case of cross-cultural and cultural psychology, decades of research have revealed many substantive differences among cultures (see Chiu & Hong, 2006, 2007; Lehman, Chiu, & Schaller, 2004). The field is now ready to transition into a new phase "that empirically establishes linkages between the active cultural ingredients hypothesized to cause between-country differences and the observed differences themselves" (Matsumoto & Yoo, 2006, p. 234).

The objective of the present volume is to attempt a systematic inquiry into basic cultural processes. In this chapter, we will provide an overview of the cultural processes presented in this volume. We will begin with defining what culture is, and proceed to discuss its functions, activation principles, and interconnections with society. Next, we will discuss cultural processes in trans-cultural settings as well as future research directions.

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DEFINITION OF CULTURE

Culture is an elusive concept. Many theorists have offered definitions of culture. In a classic review of the concept in the mid-1950s, Kroeber and Kluckhohn (1952) brought more than 160 definitions to light.

In this volume, we define culture as *a constellation of loosely organized ideas and practices that are shared (albeit imperfectly) among a collection of interdependent individuals and transmitted across generations for the purpose of coordinating individual goal pursuits in collective living.*

This working definition highlights several noteworthy aspects of culture. First, culture refers to a knowledge tradition of ideas or practices, rather than a demarcated population (Barth, 2002; Braumann, 1999; Chiu & Chen, 2004; Hong, Wan, No, & Chiu, 2007; Chapter 7, this volume), although in many empirical investigations of culture, a demarcated population is commonly used as proxy for a certain culture. For example, cross-cultural and cultural psychologists often assess the psychological effects of cultural traditions by comparing national groups (e.g., Japanese vs. Americans) or ethnic groups within a nation (e.g., Asian Americans vs. European Americans). This research practice assumes that the characteristic or mainstream knowledge traditions in the groups being compared are markedly different.

Second, the ideas and practices that characterize a culture are only loosely organized. A common assumption in cross-cultural and cultural psychology is that ideas and practices in a cultural tradition are organized around a dominant theme (e.g., individualism, collectivism, independent self-construal, or interdependent self-construal). This view of culture, which has been referred to as *the system view of culture*, has been seriously criticized in both anthropology (Shore, 2002) and cross-cultural psychology (Kashima, 2009; Tay, Woo, Klafehn, & Chiu, 2010).

As we argue in the second section of this volume, the three major questions that a knowledge tradition tries to answer are:

What is true?
What is important in life?
What is the right thing to do?

As illustrated in Figure 1.1, cultural beliefs (or lay theories; see Chapter 2, this volume) are responses to the first question. Likewise, values (see Chapter 3, this volume) are answers to the second question, and norms (see Chapter 4, this volume) provide answers to the third question. Thus, although the list is not meant to be exhaustive, we contend that every major knowledge tradition in the world includes lay theories, values, and norms.

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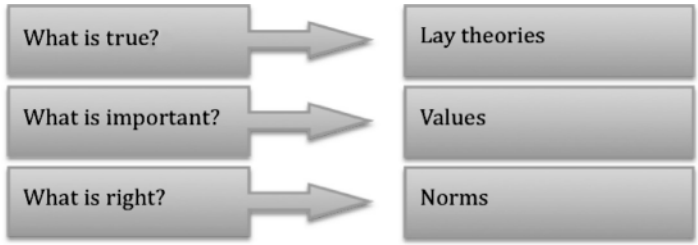


Figure 1.1. Culture provides answers to fundamental questions in life.

People who follow a certain cultural tradition use the lay theories, values, and norms in the tradition as behavioral guides. Thus, these symbolic components of culture are often accompanied by concrete practices and behavioral routines (e.g., rituals).

Oftentimes, the symbolic elements within a cultural tradition are not coherently organized because each tradition may offer several competing answers to the same question (e.g., different solutions to the body–mind problem in Greek philosophy) and competing interpretations of the same answer (e.g., different interpretations of the Gospels in different churches of the Christian tradition). Followers of a knowledge tradition may negotiate the validity of different answers or different interpretations of an answer, but, typically, multiple answers and their interpretations are retained in the knowledge tradition. As Triandis (2004) puts it, "A (cultural) tool that works well may be replaced by a tool that works slightly better, but frequently the culture retains both tools."

The research on collective responsibility attribution described in Chapter 4 provides a good illustration of how seemingly unrelated ideas are retained in a culture. Collective responsibility was first introduced in China by legalist reformers in the state of Qin (which later became the Qin Empire after the state had conquered other feudal powers) in mid-300 B.C. to enforce delegated deterrence – the practice of holding people responsible for monitoring and preventing misdeeds in one's neighborhood. Confucius (551–479 B.C.) also advocated collective responsibility but for a different reason. He held that, for the purpose of maintaining ingroup harmony, ingroup members should share the responsibility to protect individual members from being punished or ostracized. For the purpose of strengthening imperial power, in approximately 100 B.C., the Legalist principle of delegated deterrence was integrated into Confucian thoughts and written into Chinese law. The seemingly unrelated justifications for the practice of collective responsibility had coexisted in the Confucian legal traditions for more than

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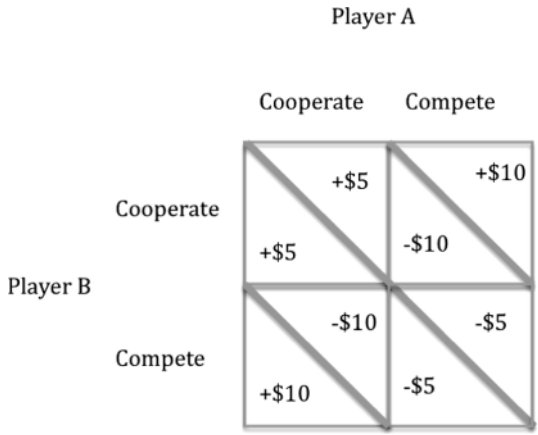


Figure 1.2. Payoff matrix in a Prisoner's Dilemma game.

two millennia. In fact, the practice continues to influence Chinese people's social judgments. The Chinese increase the extent of collective responsibility attribution both when the goal of delegated deterrence is salient and when the goal of maintaining ingroup harmony is highlighted in the situation (Chao, Zhang, & Chiu, 2008).

Third, culture is an adaptive device for coordinating individual goal pursuits in a society. People in a society simultaneously engage in competitive and cooperative behaviors. People are driven by selfish motives to maximize their personal gains. Meanwhile, the society needs to ensure that competition between individuals does not lead to cutthroat competition that threatens the survival of the society (Chiu & Chao, 2009; Heylighen & Campbell, 1995). As an illustration, consider the following payoff in a Prisoner's Dilemma game. The payoff, as illustrated in Figure 1.2, is symmetrical. If both players choose to cooperate, both parties will win \$5. If both players choose to compete, both parties will lose \$5. If one player chooses to cooperate and the other chooses to compete, the cooperative player will lose \$10 and the competitive player will win \$10. This matrix encourages individuals to engage in competition. If Player A assumes that Player B has a 50% chance of choosing to cooperate, the anticipated outcome of cooperation for Player A would be: $(0.5 \times \$5) + (0.5 \times -\$10) = -\$2.5$, and the anticipated outcome of competition for Player A would be: $(0.5 \times -\$5) + (0.5 \times \$10) = \$2.5$. Furthermore, if Player A knows that Player B is aware of the payoff matrix, Player A will expect Player B to compete rather than to cooperate, because Player A knows that Player B knows that he/she will make more money by choosing to compete than

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cooperate. The same calculation will enter Player B's mind. As a consequence, both players will tend to compete and both players will lose money. Thus, paradoxically, when both players act rationally to maximize their personal gains, the dyad suffers. In summary, unregulated selfish maximization could threaten the survival of the society. A recent example of this is that unregulated selfish maximization of Wall Street bankers has led to the collapse of the financial market.

Accordingly, every society needs social control mechanisms (e.g., the law, culture) to regulate but not to suffocate selfish, maximizing actions of the individual (see Chapter 4, this volume). Culture, as a social control mechanism, evolved to encourage cooperative coordination of individual actions and discourage selfish actions that would threaten the survival of the group. As an analogy, culture, like the conscience (or Superego) of the society, emerged to regulate but not to suffocate selfish maximization (the Id), so that the Society (the Ego) can channel selfish maximization into socially constructive actions and outcomes (Chiu & Chao, 2009; Chiu, Kim, & Chaturvedi, 2009; Chiu, Kim, & Wan, 2008).

Culture also helps direct individual actions to the protection of the society from various kinds of threats. A major threat to the survival of a human group is infectious disease, which, if not contained, could kill many in the group. In societies with high pandemic risk (e.g., societies in warm regions), strict norms were evolved to control the spread of pathogens in the community (e.g., norms that limit interactions with foreigners who could be carriers of exotic pathogens; Schaller & Murray, in press).

Culture also helps mobilize individuals to engage in a collective effort to protect the group from threatening natural disasters and foreign invasions. For example, the emphasis on loyalty in Confucianism gave the ancient rulers of China an inordinate amount of legitimate power to mobilize their people to engage in massive construction projects to protect the country (e.g., fortification of the Yellow River Banks to prevent massive flooding from bank collapses or breaching; the building of the Great Wall to defend against northern invasions). Recent research has shown that strong patriotic belief in Chinese culture contributed to the Chinese government's success in mobilizing the mass to volunteer for the 2008 Summer Olympics in Beijing (Yang et al., 2010).

FUNCTIONS OF CULTURE

Culture serves important social regulatory functions for the society. What does it do for the individual?

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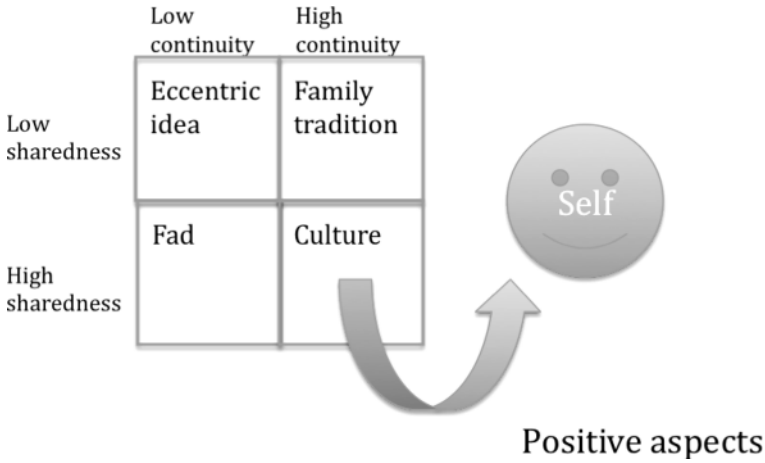


Figure 1.3. Psychological functions of culture.

As mentioned, two defining characteristics of a cultural knowledge tradition are its sharedness and continuity (Chiu & Liu, in press). A unique family tradition is one that has a history but is not widely shared in the community. A fad is a fashion, notion, or manner of conduct followed enthusiastically by a large group, but its popularity is temporary. An individual's eccentric belief is not shared by others and would unlikely be passed down through history. As illustrated in Figure 1.3, unlike a unique family tradition, a fad, or an eccentric belief, a cultural tradition (a) is shared among many people and (b) has a history.

By virtue of its sharedness and consensual validity, culture provides to its followers a sense of epistemic security (Chiu, Morris, Hong, & Menon, 2000; Fu, Morris, Lee, et al., 2007; see Chapter 5, this volume). Widely shared cultural knowledge provides individuals with a consensually validated framework to interpret otherwise ambiguous experiences. It informs individuals in the society what ideas or practices are generally considered to be true, important, and appropriate. Thus, it protects individuals from the epistemic terror of uncertainty and unpredictability.

By virtue of its continuity, culture provides its followers a sense of existential security, protecting the individual from the terror of recognizing one's mortality (Tam, Chiu, & Lau, 2007; see Chapter 6, this volume). Despite the finitude of an individual's life, the cultural tradition to which one belongs, as well as its sacred icons, will be passed down through history. Thus, connecting the self to a seemingly immortal cultural tradition can help assuage existential terror.

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Culture also serves a self-definitional need (Hong et al., 2007; see Chapter 7, this volume). Individuals identify with a cultural tradition that enhances the positive distinctiveness of the self. Many components in a cultural tradition represent what most people in the culture agree to be true, valuable, and morally desirable. These components provide individuals with the symbolic materials for constructing a positive self-identity. Individuals can select, internalize, and even connect the self to ideas and practices in a culture with which they identify. Because different individuals may select a different subset of cultural ideas and/or practices for constructing self-identity, the meaning of the cultural self may mean different things to different individuals even within the same culture. Nonetheless, when the individual's cultural self is threatened, he or she will seek to affirm cultural identity and support a broader range of ideas and practices in the culture (Wan, Torelli, & Chiu, in press; Wan et al., 2007).

WHERE DOES CULTURE RESIDE?

Investigators have debated where culture resides. Does it reside in the individuals in the form of a cultural self, or does it reside as public representations carried in various cultural practices and artifacts (Morling & Lamoreaux, 2008)?

In this volume, we take the view that cultural knowledge is a kind of intersubjective knowledge (Chiu, Gelfand, Yamagishi, Shteynberg, & Wan, 2010; Wan & Chiu, 2009; see Chapter 3, this volume). Heylighen (1997) maintains that an intersubjective idea is selected for reproduction in culture based on its publicity (how extensively it is carried in public media), expressivity (how easily it can be expressed in a particular language or medium), formality (how context independent the expression of the idea is), collective utility (how much the idea benefits the collective), conformity (how popular the idea is), and authority (to what extent the idea is backed up by experts or authority).

First, according to this view, an idea is likely to be assimilated into the cultural tradition if its meanings are encoded in tangible, public representations that are accessible to all members of the culture and embodied in the culture's instituted social relations. Thus, important values, beliefs, and norms in a culture usually have many public representations (Morling & Lamoreaux, 2008).

Second, ideas that have high linguistic codability (the ease with which people can describe them in words) tend to prevail in the culture. This idea is consistent with the linguistic relativity hypothesis, which emphasizes

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Table 1.1. *Types of cultural elements*

	Lay theories	Values	Norms
Knowledge of	Knowledge of lay theories	Knowledge of values	Knowledge of norms
Cultural self encompasses	Internalized lay theories	Internalized values	Internalized norms

the effects of linguistic encoding of a state of affairs on the development of a shared representation of that state of affairs (Chiu, Leung, & Kwan, 2007; Lau, Chiu, & Lee, 2001; Lau, Lee, & Chiu, 2004). For example, some languages (e.g., Puerto Rican Spanish and Turkish) have formal grammatical markers for false belief states (the state of believing in something that is not true). Children who speak this language, compared to those whose language does not have such markers, are more adept at comprehending false belief states when they use the false belief markers to describe them (Shatz, Diesendruck, Martinez-Beck, & Akar, 2003).

Third, as Sperber (1996) puts it, ideas that are "repeatedly communicated and minimally transformed in the process will end up belonging to the culture" (p. 83). In fact, research has shown that ideas that tend to be distorted in or drop out of a communication chain are unlikely to be assimilated into a cultural tradition (Kashima, 2000).

Furthermore, according to the collective utility principle, an idea is likely to be assimilated into a cultural tradition if it serves the social regulatory functions described in the previous section. According to the authority principle, ideas circulated among cultural elites are more likely to become a part of a culture. Finally, well-known ideas, practices, and people tend to maintain their cultural prominence in the presence of equally good or better alternatives, because people tend to use shared knowledge to establish common ground with their conversation partners. Consistent with this principle of conformity, research has shown that, regardless of performance, familiar baseball players are discussed more often than lesser-known players in natural discussions on the Internet. More important, regardless of performance, baseball players who are discussed more often on the Internet receive more All-Star votes, an institutionalized measure of cultural prominence (Fast, Heath, & Wu, 2009).

As mentioned, individuals may internalize a subset of ideas and practices in their culture. These ideas and practices form the contents of the individual's cultural self. As emphasized in Chapter 7 and illustrated in Table 1.1,

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for each idea and/or practice in a cultural tradition, only a portion of individuals will internalize it. For each individual, the cultural self consists of only a subset of the ideas and practices that are circulated in the culture. The separation of cultural knowledge from cultural mind creates the pretext for exploring the active identity negotiation processes presented in Chapters 7 and 12 (see Tadmor, Hong, Chiu, & No, in press).

Thus, culture exists both as tangible, public representations as well as in communication practices. Indeed, Sperber (1996) suggests that the best way to study how culture spreads and evolves is by examining how shared representations "are cognized by individuals and how they are communicated within a group" (p. 97). Likewise, Bruner (1990) submits: "our culturally adapted way of life depends upon shared meanings and shared concepts and depends as well upon shared modes of discourse for negotiating differences in meaning and interpretation" (pp. 12–13).

This distinction between cultural mind and cultural self has an important implication. Because all culturally competent individuals possess knowledge of their culture and may use this knowledge as a behavioral guide irrespective of whether they personally identify with it, knowledge of cultural expectations may have a more consistent effect on behaviors than do personal endorsement of these expectations. Indeed, recent research shows that cultural differences in judgments and behaviors are better predicted by knowledge of the shared lay theories and values in a particular culture than by personal endorsement of these lay theories or values (Shteynberg, Gelfand, & Kim, 2009; Zou et al., 2009).

Crossing the three kinds of knowledge representations (lay theories, values, and norms) with whether these representations are simply cultural knowledge or parts of the cultural self gives rise to the six types of cultural elements illustrated in Table 1.1. Chapter 2 illustrates how personal endorsement of shared lay theories about the world, race, and fate affect decisions and behaviors. Similarly, Chapter 9 illustrates how cultural differences in personal endorsement of lay theories of the self give rise to cultural differences in subjective well-being (Wirtz, Chiu, Diener, & Oishi, 2009). Chapters 3 and 7 discuss how knowledge of cultural values and personal endorsement of these values jointly determine overall level of cultural identification. Chapter 5 describes how knowledge of shared conflict resolution norms affects conflict resolution behaviors when people manage conflicts in their own culture and in a foreign culture (Chao, Zhang, & Chiu, 2010).

Intersubjective knowledge is different from objective knowledge. People may believe that a certain value is popular in the society, although few people in the society actually endorse it (Chiu, Gelfand, Yamagishi, et al.,

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2010). In Chapter 3, Wan and Chiu relate this to the phenomenon of pluralistic ignorance, which refers to the situation in which a majority of group members privately reject a norm but assume (incorrectly) that most others accept it (Katz & Allport, 1931). In Chapter 11, Zhang illustrates this argument with the example of the social harmony norm in Chinese conflict situations. Chinese typically assume that others value interpersonal harmony and avoid direct confrontation, despite the fact that most Chinese actually prefer using direct confrontation to resolve a conflict. Because of pluralistic ignorance, the Chinese tend to avoid direct confrontation in conflict situations. Paradoxically, because of the motivation to maintain harmony through confrontation avoidance, the conflicts are not resolved and their negative interpersonal effects linger on, creating tensions in subsequent interactions between the disputants.

PRINCIPLES OF CULTURAL KNOWLEDGE ACTIVATION

Through cultural immersion, individuals acquire knowledge about the various lay theories, values, and norms as well as about their distributions in their culture. These lay theories, values, and norms are stored in the individual's memory as knowledge items. In response to the cultural demands of the situation, individuals will retrieve from memory the pertinent knowledge items as behavioral guides (Chiu & Hong, 2007; Hong & Chiu, 2001).

Application of cultural knowledge follows three basic principles: (1) availability, (2) accessibility, and (3) applicability. A knowledge item must be cognitively available to the individual before it can be applied. Among the cognitively available cultural knowledge items, those that are frequently or recently used are more cognitively accessible; they can be more readily retrieved from memory. Among the cognitively accessible cultural knowledge items, those that can be used to guide behaviors or solve problems in an immediate situation are more likely to be applied (Hong, Benet-Martinez, Chiu, & Morris, 2003; Hong, Morris, Chiu, & Benet-Martinez, 2000; Wong & Hong, 2005). These principles are illustrated in Chapter 4 using the example of collective responsibility attribution.

Finally, when the psychological functions of culture are highlighted in the situation, cultural knowledge (vs. personal or other types of knowledge) is more likely to be used. Evidence for this principle abounds. The research evidence cited in Chapters 5–7 illustrates that the tendency to apply cultural knowledge is heightened when the need for epistemic security is salient (Chao et al., 2010; Chiu et al., 2000; Fu, Morris, Chiu, et al., 2007; Chapter 5), when mortality is primed (Tam et al., 2007; Chapter 6), or when the

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situation presents a threat to one's cultural self (Chapter 7; Wan et al., 2007, in press).

SOCIETY, CULTURE, AND THE INDIVIDUAL

A major emphasis in our analysis is that cultural processes do not emerge in a social vacuum. Instead, individuals pursue their goals and construct their identities in a social context and are subject to the constraints that society imposes on individual behaviors. As a consequence, individuals need to negotiate personal control under such constraints. Shared lay theories – a part of the cultural tradition in the society – emerge in response to these constraints. Recent studies have shown that people living in a society with limited job mobility tend to endorse the lay theory that the world is fixed (Chen, Chiu, & Chan, 2009; see Chapter 2, this volume) and to display role conformance in job situations. In Chapter 2, Dach-Gruschow, Au, and Liao describe how pursuing goals under severe societal constraints could lead to the development of a fate belief that simultaneously recognizes the power of fate and personal agency. This lay theory is referred to as negotiable fate – the idea that fate determines one's outcomes but that one can negotiate with fate for better treatment (Chaturvedi, Chiu, & Viswanathan, 2009).

The social environment also constrains the way people express their basic needs (Chiu & Kim, in press). In Chapter 8 of this volume, Kim concludes from a review of the extant empirical evidence that, like Americans, Asians also desire positive self-regard and public acknowledgment of their strengths. Nonetheless, blatant expressions of one's strengths go against the culturally prescribed norms of self-presentation (modesty, dialectical self-presentation) and self-regulatory values (prevention focus, self-improvement) in Asian societies. As a result, individuals from Asian backgrounds often need to find indirect ways to express their positive selves (Kim, Chiu, Peng, Cai, & Tov, 2010; Kim, Peng, & Chiu, 2008).

Such negotiation processes also take place in identity construction processes and are particularly intense in bicultural identity negotiation (Hong et al., 2007; Tadmor et al., in press). As discussed in Chapter 12, cultural identity negotiations invariably take place in a social context in which different ethnic and/or cultural groups are associated with different statuses and stereotypes. On the one hand, strong between-group status differences and group stereotypes may lead to the development of essentialist beliefs about ethnic and/or cultural groups (Chapter 2). On the other hand, believing that each group is a fixed entity with a certain essence reinforces the perceived impermeability of intergroup boundaries, rendering cognitive

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crossing of cultural boundaries difficult (Chao, Chen, Roisman, & Hong, 2007; Hong, Chao, & No, 2009; No et al., 2008; see Chapter 12, this volume). Thus, the intergroup reality and its attendant cultural lay theories can have tremendous impact on the outcome of bicultural identity negotiation.

Even positively evaluated minority groups often experience subtle forms of discrimination. Take the model minority stereotype in the United States as an example. Asian Americans are considered a model minority with such positive traits as being quiet and hardworking. This stereotype obscures huge within-group variations among the Asians in the United States, particularly in their need for public assistance. Not all Asian groups in the United States perform well, and those who do not are denied public assistance simply because Asians are believed to know how to overcome obstacles through hard work. Also, the achievements of the model minority are sometimes cited as evidence for withdrawing public assistance to other minority groups – if Asians can manage without help, so can other minorities. Such cultural comparisons can create further tensions between Asians and other minority groups (Chao, Chiu, & Lee, 2010).

Finally, unequal status in multicultural contexts may create silent, marginalized cultural minorities. Members of these minorities often hesitate to voice their opinions in multicultural groups. Such a self-sanctioning process reduces opportunities for intercultural learning and limits the creative potential of a multicultural group (see Chapter 15, this volume). Thus, an analysis of cultural processes cannot be complete without considering the broader societal context in which they are embedded.

THE BENEFITS OF MULTICULTURAL EXPERIENCES

Although culture confers many benefits to the individual, it also limits the individual's intellectual horizons. People who are deep in a cultural tradition see the world primarily through the lens of that tradition (Leung, Maddux, Galinsky, & Chiu, 2008). In contrast, individuals who have extensive exposure to multiple cultures can view the world from different cultural lenses. Multicultural experiences have at least four cognitive benefits. First, they allow acquisition of knowledge about the dominant lay theories, values, norms, and behavioral scripts in other cultures (Chiu & Hong, 2005). Second, they enable flexible switching of cultural frames in response to the changing cultural demand in the situation (Fu, Chiu, Morris, & Young, 2007; Hong et al., 2000; Sui, Zhu, & Chiu, 2007). For example, Chinese Americans with rich bicultural knowledge can switch to a Chinese communication

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style when interacting with a Chinese and to an American communication style when interacting with an American. Such flexible switching will in turn improve intercultural communication (see Chapter 13, this volume). Third, in a multicultural work team, knowing what people in other cultures know, believe in, and value also facilitates coordination of team activities, leading to a higher level of team performance (see Chapter 10, this volume). Finally, with knowledge from different cultures at one's disposal, individuals can use knowledge from different cultures as resources to create new knowledge (Leung & Chiu, in press; Chapters 14 and 15, this volume).

Nonetheless, as pointed out in Chapters 13–15, the presence of some situational factors can curtail the cognitive benefits of multicultural experiences. For example, when the epistemic, existential, and self-definitional functions of culture are emphasized in a situation, individuals tend to follow the knowledge tradition of their own culture rather than learn from other cultures (Leung & Chiu, 2008, in press; Chapters 13 and 14, this volume). Also, the presence of unequal statuses in a multicultural group may lead to marginalization of low status groups and self-sanctioning (see Chapter 15, this volume).

SUMMARY AND FUTURE DIRECTIONS

In this volume, we describe a collection of works that were carried out to systematically examine cultural processes. We believe that this analysis has deepened our understanding of the active transactions of the society, the culture, and the individual.

Our analysis emphasizes the social coordination functions of culture. Indeed, only humans have the ability and motivation to (a) form shared goals and intentions with others in collaborative activities and (b) share experiences with others via joint attention, cooperative communication, and teaching. These abilities are believed to be the cognitive foundation of the evolution of culture (Tomasello, 2009).

As individual actors negotiate meanings and coordinate their goal pursuits through communication, culture as a collectively constructed knowledge tradition emerges. The symbolic contents of a cultural tradition address the fundamental questions of what is true, what is important, and what is right. By virtue of their sharedness, continuity, and positive values, a cultural tradition helps individuals meet their epistemic security, existential security, and self-definition needs.

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A cultural tradition consists of intersubjective knowledge. The main body of it is externalized in various public representations, and a subset of it is internalized and forms the individual's cultural self.

Contents of cultural knowledge are organized in memory into knowledge structures, which are applied when they are cognitively available, accessible, and applicable. When the psychological functions of culture are made salient, the tendency to access and apply cultural knowledge (vs. other forms of knowledge) increases.

Cultural processes do not occur in a social vacuum. Existing social structures can shape the lay theories and norms in a culture, which in turn can affect the ways in which individuals express and try to meet their basic needs. Existing status structures and group stereotypes can also affect cultural identity choices and intercultural interactions.

Multicultural experiences can create many cognitive and social benefits. Specifically, multicultural experiences can improve cultural sensitivity, behavioral flexibility in intercultural interaction, and coordination in multicultural teamwork and creative performance. Nonetheless, these benefits will be curtailed if the needs for epistemic security, existential security, and cultural identity are salient or when there are unequal statuses among different cultural groups in intercultural interactions.

Several questions remain to be answered in future research. First, our analysis focuses on the social coordination function of culture. Sometimes, however, culture not only fails to perform this function, it actually promotes social disorganization. An example is the evolution of the culture of corruption in many societies.

Another example is the evolution of a materialist culture in some industrialized societies. A dominant lay theory in materialist culture is "wealth = worth"; wealth is used as the primary criterion for evaluating a person's worth and contribution to the society. A recent study carried out by the New Economics Foundation challenges the objective validity of this lay theory. The Foundation calculated the total contribution that six jobs make to society, including the impact on communities and the environment. These six jobs are waste recycler, hospital cleaner, childcare worker, elite banker, advertising executive, and tax accountant.

As shown in Table 1.2, elite bankers, advertising executives, and tax accountants make a lot more money than do waste recyclers, hospital cleaners, and childcare workers. Waste recyclers, hospital cleaners, and childcare workers, however, all make a positive contribution (from £9.5 to £12) to the society for every pound they are paid, whereas elite bankers, advertising executives, and tax accountants all make a negative contribution

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Table 1.2. *Contributions of six job categories to society*

Job category	Value created for every £1 paid
Hospital cleaner	£10
Childcare worker	£9.50
Waste recycler	£12
Elite banker	–£7
Advertising executive	–£11
Tax accountant	–£47

Note: Based on New Economics Foundation study results reported in Shankleman (2009).

(from −£7 to −£47) to the society for every pound they are paid. Nonetheless, the materialist culture rewards elite bankers, advertising executives, and tax accountants with higher income and social status.

As Eilís Lawlor, spokeswoman for the New Economics Foundation, put it: "Pay levels often don't reflect the true value that is being created. As a society, we need a pay structure which rewards those jobs that create most societal benefit rather than those that generate profits at the expense of society and the environment" (Shankleman, 2009). Research is needed to understand when culture would fail its social coordination function and what can be done to fix the problem.

A second important future research topic concerns the cultural effects of globalization. As globalization proceeds at an increasingly rapid rate, research is needed to understand how globalization affects people's perceptions of their culture as their national economy globalizes (Cheng et al., 2010), as well as how individuals react to foreign cultures (Chen & Chiu, 2010; Chiu, Mallorie, Keh, & Law, 2009; Fu & Chiu, 2007). Will globalization weaken parochial, provincial identities and foster the development of cosmopolitan identities, or will globalization lead to fear of cultural contamination and erosion, which may in turn spur intercultural animosity (Chiu & Cheng, 2007)?

A major contribution of the process analysis advocated in this volume is that it sheds light on cultural differences but is not restricted to explaining cultural differences. This process analysis also connects cultural analysis to basic principles of social cognition, social motivation, and group processes. Its focus on the dynamic interplay of society, culture, and the individual invites integration of insights from psychology and other social science disciplines (e.g., anthropology, political science, sociology). As such, a process view of culture could lay the foundation for an integrated cultural science.

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At the beginning of this chapter, we quoted Matsumoto and Yoo (2006) to argue for the timeliness of process analysis of culture. We wish to end by concluding that process research of culture, as exemplified in the present volume, is also highly theoretical as well as practical.

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