Ethos of Independence Across Regions in the United States

The Production–Adoption Model of Cultural Change

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Contemporary U.S. culture has a highly individualistic ethos. Nevertheless, exactly how this ethos was historically fostered remains unanalyzed. A new model of dynamic cultural change maintains that sparsely populated, novel environments that impose major threats to survival, such as the Western frontier in the United States during the 18th and 19th centuries, breed strong values of independence, which in turn guide the production of new practices that encourage self-promotion and focused, competitive work. Faced with few significant threats to survival, residents in traditional areas are likely to seek social prestige by adopting existing practices of other, higher status groups. Because of both the massive economic success of the frontier and the official endorsement of the frontier by the federal government, eastern residents of the United States in the 18th and 19th centuries may have actively adopted the frontier practices of independence, thus incorporating the frontier ethos of independence to form the contemporary U.S. national culture. Available evidence is reviewed, and implications for further research on cultural change are suggested.

Keywords: U.S. regions, independence and interdependence, cultural change, individualism

At the turn of the 20th century, the American sociologist Fredrick Jackson Turner (1920) proposed his frontier thesis arguing that the country's settlement history was instrumental in fostering the present-day American democracy, with its individualistic and egalitarian overtones. This proposal triggered a continuing debate among social scientists on the role of the frontier in the formation of the cultural ethos of independence in contemporary U.S. society (Garcia-Jimeno & Robinson, 2009; Taylor, 1956). In the present article, we address this controversy from a new theoretical perspective derived from social, cultural, and evolutionary psychology.

Our basic thesis is that to understand the contemporary American cultural ethos, it is essential to determine (a) how cultural practices encouraging independence of the self were originally produced on the frontier (ecologically harsh, sparsely populated, and socially primitive regions that imposed major survival challenges), (b) how these practices were subsequently disseminated to and adopted by residents of more civilized regions, and (c) how active engagement in cultural practices may lead to relatively stable implicit psychological tendencies that are attuned to these practices. Our theoretical framework is thus called the production–adoption model of cultural change. We use this model to address the origin and some contemporary characteristics of American individualism.

One striking implication of the model is that contemporary American culture is simultaneously highly homogeneous over its territory and remarkably diverse across its regions. As we argue, the culture is unified in terms of its *implicit* ethos (defined by both tacit practices and associated mental habits). At the same time, it is quite diverse across regions in terms of its *explicit* ethos (defined by both explicitly held values and the behaviors that are guided by them). Both aspects of culture are important in achieving a truly comprehensive understanding of the dynamic process of cultural maintenance and change.

Our work draws on recent research on regional variation within the United States. Using some different measurement techniques (e.g., behavioral vs. societal/structural) and samples (e.g., college vs. community samples), this literature has shown that some sizable regional variations exist within the United States in several domains,

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including individualism and collectivism (Vandello & Cohen, 1999), well-being and models of the self (Plaut, Markus, & Lachman, 2002), personality trait profiles (Rentfrow, Gosling, & Potter, 2008), and regional institutions (Conway, Sexton, & Tweed, 2006). We suggest that at least part of this regional variation can be theoretically illuminated by taking into account the nation's settlement history.

The renewed focus on region in the United States is quite timely. Most important, the work on regions can expand the last two decades of psychological research on culture. This research examined independence and interdependence of the self and found that associated psychological tendencies are remarkably variable across cultures (e.g., Kitayama, Ishii, Imada, Takemura, & Ramaswamy, 2006; Kitayama, Park, Sevincer, Karasawa, & Uskul, 2009; Markus & Kitayama, 1991). Compared with Asians, Western Europeans such as the British and the Germans tend to be more focused (vs. holistic) in attention, more oriented toward personal (vs. social) happiness, and more egocentric (vs. other-centric) in the construction of social relations. Compared with Western Europeans, European Americans are even more focused in attention, more personal in happiness, and much more egocentric in social relations. As argued elsewhere (e.g., Fiske, Kitayama, Markus, & Nisbett, 1998; Kitayama et al., 2009), the psychological tendencies of focused attention, personal happiness, and egocentricity in interpersonal behavior are some of the psychological features associated with independence and individualism.

It appears, then, that North Americans are quite unique—even in comparison to Western Europeans, let alone Asians—in the predominance of independence and individualism, as opposed to interdependence and collec-

tivism, in their cultural ethos. Indeed, Americans may seem to some "highly unrepresentative of [human] species" (Henrich, Heine, & Norenzayan, 2010, p. 41). It is quite important to understand theoretically why European Americans are so unique and so highly independent. This is especially true given the fact that more than 95% of the data in psychology today come from North America (Arnett, 2008). Information garnered from regional comparisons *within* the United States may provide an important clue.

Understanding the nature of the American cultural ethos of independence is equally important from the perspective of ethnic minority populations within the United States, for these groups must navigate through the mainstream culture, which is predominantly European in origin. Understanding the historical roots and associated psychological characteristics of this mainstream U.S. culture may help members of minority groups to thrive and prosper in this society. Moreover, with some important exceptions such as Native Americans, members of U.S. ethnic minority groups are themselves settlers or the descendents of settlers in the United States. The conditions under which settlement took place for these minority groups are vastly different from the conditions faced by the early settlers of European origin, however; moreover, settlement conditions also differ markedly among the different minority groups themselves. For example, a large number of Africans were brought to the United States by force, which created involuntary migration to and within this continent. Or consider the many Asian immigrants who settle in communities of individuals from the same ethnic background in big cities such as Los Angeles and Atlanta. The social ecology would be very different for them than for the early settlers from Europe. Because the conditions surrounding the migration of ethnic minority groups varied considerably from the conditions faced by early European American settlers, we must be cautious about generalizing our analysis to settlement patterns of ethnic minority groups; however, the present analysis should contribute to an understanding of the possible impacts of settlement experiences for each of the different ethnic groups in the United States once factors unique to each of these groups are duly taken into account.

Since de Tocqueville (1835/1969), if not earlier, the genesis of regional variation in independence within the United States has been addressed, but only with anecdotal evidence (e.g., Stegner, 1953; Stewart, 1963; Turner, 1920). It seems quite important to provide a scientific understanding of the nature and bases of the individualistic mentality across regions of the United States. The work reviewed here represents a first step toward the goal of empirically explicating the process of the production and the adoption of the ethos of independence in the context of mainstream U.S. culture and its history.

In what follows, we start by discussing three key elements that constitute cultural ethos—explicit cultural values, cultural practices, and implicit psychological tendencies. We review a wide range of studies, both anthropological and psychological and both empirical and theoretical, to argue that these key components of culture have

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their own unique characteristics and, moreover, are dynamically linked to one another. In this view, the cultural ethos of independence (vs. interdependence) is linked both to the corresponding explicit values and to the corresponding set of cultural practices. Moreover, cultural values, practices, and implicit psychological tendencies also tend to be linked. Drawing on this discussion, we present a new model of dynamic cultural change—called the production–adoption model—and use the model to account for an important facet of the historical origin of American individualism. We argue that although explicit aspects of culture (e.g., strongly held values) and implicit aspects of culture (e.g., mental habits) are linked, they are also dissociable. This dissociation, we suggest, is key to understanding contemporary U.S. culture.

Cultural Ethos: Values, Practices, and Psychological Tendencies

The world we live in is a complex amalgam of meanings and practices. Stories about ourselves, others, and social institutions such as the family and the workplace, and about both the past and the future of our countries and the world as a whole, fill the space in which we live our lives. In the contemporary United States, for example, narratives of the American dream, with its strong emphasis on personal happiness, optimism about the future, and hard and focused work, permeate every stratum of the society (Hochschild, 1995) and have a number of ramifications for personal identity (McAdams, 2006), work motivation and the work ethic (Sanchez-Burks, 2002), and even national programs of space exploration (Faludi, 2003; Klerkx, 2004). These stories are not just fantasies that have no consequences on behavior. To the contrary, they serve as generative schemas for reflecting on the past and planning the future, guiding and motivating the behaviors of every individual who shares them. These behaviors are often conventionalized, scripted, and widely shared in the group. Such conventionalized patterns of behavior are called *cultural practices*. Various daily routines, conventions, and practices, most of which we take for granted and rarely scrutinize for their meanings or significance, are often closely linked to the stories we live by (Lakoff & Johnson, 1980). To refer to this amalgam of practices and meanings, we use the term *cultural ethos*. By the cultural ethos of independence, then, we mean a set of practices, meanings, and attendant experiences that are loosely organized around the values of independence such as self-direction, self-reliance, and self-expression.

The existing literature on culture is divided on which of the components of cultural ethos are the most important. Some researchers have defined culture in terms of explicitly held beliefs and values. For example, Triandis once operationalized shared cultural ideas as those sentiments that a group of four or so people could agree on (Triandis, Bontempo, Leung & Hui, 1990). Likewise, Schwartz has long maintained that explicitly held values as guiding principles of one's life are the primary component of culture (S. H. Schwartz, 1992). Following this research tradition, numerous psychologists have taken explicit answers to a variety of survey questions on cultural values and attitudes as face-valid manifestations of culture (Oyserman, Coon, & Kemmelmeier, 2002). In contrast, some other researchers place a greater emphasis on an observation that culture is tacit and implicit (Kitayama, 2002). As noted by Emile Durkheim (1964), culture is to humans what water is to fish. Typically, cultural anthropologists argue that culture is composed of layers of assumptions that are hidden from the surface because they are inscribed in daily practices and institutionalized in mundane routines, conventions, and societal norms (e.g., D'Andrade, 1995; Shore, 1996; Shweder, 1991).

Despite the apparent disagreement, there is an emerging consensus that culture has both explicit and implicit aspects and, moreover, that both are important in their own ways (e.g., Greenfield, Keller, Fuligni, & Maynard, 2003; Greenfield, Maynard, & Childs, 2003). Yet, at present, no clear formulations exist regarding how the two aspects of culture are dynamically related to one another.

An Overview: Explicit Cultural Values, Cultural Practices, and Implicit Psychological Tendencies

To start systematically theorizing on the linkages between explicit and implicit aspects of culture, it is important to clearly define three separable facets of culture: namely, explicit cultural values, cultural practices, and implicit psychological tendencies. *Explicit cultural values* refer to clearly formulated general goal states that are typically shared in a cultural group. These values are often quite "deep" in the sense that they are anchored in strongly held beliefs, attitudes, and emotional conditionings. The values themselves are typically held consciously and articulated in

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clear, deliberate fashion, although the underlying cognitive and emotional structure could be unconscious.

By *cultural practices,* we mean culturally scripted ways of "getting things done."[1] Represented in terms of an actor performing a certain scripted action, cultural practices typically embody and, thus, reflect deeply held cultural values. For example, Asian cultures traditionally emphasize interdependent values such as filial piety and collective duty. These values, in turn, are reflected in the present-day practices of parent–child interactions, in mannerisms, as well as in contemporary societal norms. Likewise, a practice of "publish or perish," common in U.S. universities, is based on the ideal of self-reliance and hard work, and similarly, the practice of "show and tell" in elementary schools is based on the ideal of self-expression. We suggest that this correspondence exists because cultural practices are crafted and produced by strong believers in a certain value—believers try to realize the value in what they do. For example, many contemporary practices in East Asia, including China, Korea, Taiwan, and Japan, that can be traced back to Confucianism were, in all likelihood, crafted by believers of this East Asian school of thought and subsequently adopted by nonbelievers. Both explicit cultural values and cultural practices are associated with a variety of public meanings such as cultural icons, narratives, proverbs, and lay theories, among others. These meanings play important roles in situating both the values and the practices in a specific social context and anchoring them to it.

By *implicit psychological tendencies,* we mean a set of psychological habits and biases that are acquired through active and repeated participation in the daily practices of culture (Kitayama et al., 2009). Recent work on neuroplasticity has suggested that once associated brain pathways are

repeatedly activated in accordance with the scripted behavioral patterns, the involved brain pathways will be culturally patterned. The psychological tendencies that accompany this neural patterning will in large part be automatic and subconscious and, yet, can produce systematic biases in psychological behaviors that facilitate the participation in the cultural practices at issue (Kitayama & Park, 2010; Kitayama & Uskul, in press). The implicit psychological tendencies that are fostered by independent (or interdependent) practices are called implicit independence (or interdependence).

The goal of our theoretical effort is to specify the sociocultural mechanisms by which both an explicit ethos of culture (defined by explicit values and related deliberate behaviors) and an implicit ethos of culture (defined by cultural practices and associated spontaneous behaviors) are produced, maintained, and changed. Central in our theorizing is the assumption that culture is a means for both adaptation for biological, economic, and/or political survival and social competition for power and prestige within one's own community or ingroup (Nesse, 2009; Richerson & Boyd, 2004). That is, people sometimes use culture to survive both personally and as a collective (e.g., primary groups such as family and tribe) in hostile environments, whereas at other times they use culture to compete with one another within their own group for resources such as prestige, status, and eventually more suitable mates. Building on this basic insight, we use the following four propositions to specify the dynamic process of crafting and changing both explicit and implicit aspects of cultural ethos.

Proposition 1: Novel values and practices are produced to cope with major adaptive challenges for biological, economic, and/or political survival, whereas adoption of existing practices is motivated by a desire to achieve prestige and higher status within one's community.

New values and associated practices are likely to be produced when they are demanded by adaptive challenges posed by the environment. The demand will be especially high when no ready-made solutions are available for the urgent adaptive challenges. Moreover, such locales often attract strong believers in such values. The resulting group of individuals then uses their newly formed group values

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[1] In their cultural task analysis, Kitayama et al. (2009) used the notions of *cultural mandates* (equivalent to the *cultural values* used here) and *cultural tasks* (equivalent to the *cultural practices* described here). Their analysis focused on how cultural practices are incorporated into the process of identity making and how each individual actively seeks to attain an important cultural value (the cultural mandate from the person's perspective) by engaging in the pertinent cultural practices designed to attain the value (the cultural tasks from his or her perspective). Whereas the present analysis uses a third-person (or "etic") perspective to discuss how cultural values, cultural practices, and implicit psychological tendencies are functionally related in a dynamic fashion, the cultural task analysis emphasizes how these elements of culture/mind are appropriated from each individual's personal or subjective (or "emic") perspective to constitute the process of active engagement in the surrounding cultural world. As such, the two analyses are complementary to one another.

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and practices to deal with external threats to survival. In this way, new practices are produced by dint of the fact that people try to realize their emerging cultural values in their behaviors. Conversely, these practices reinforce the underlying values.

Survival challenges can entail a life-or-death situation in the most literal sense, as may have often been the case on the Western frontier in 18th- or 19th-century North America. Or they can also imply survival in an economic or political sense. For example, technological innovations are typically motivated by a venture firm's strong need to survive as an economic entity. Or consider Confucian thoughts. Among clan-based small kingdoms in ancient China, Confucian ideas found in aphorisms, known texts, and poems were often treated as an effective social means to govern and resolve conflicts (Munro, 1969, 1977, personal communication, February 2010). In other words, they were originally invented as a tool for dealing with specific adaptive challenges to participating political entities that were then present in the society. Consistent with this analysis, research has shown that social norms often develop so as to resolve a variety of biological, ecological, economic, and/or political adaptive challenges (Berry, 1994; Cohen, 1998; Conway, Ryder, Tweed, & Sokol, 2001; Fincher, Thornhill, Murray, & Schaller, 2008; Insko et al., 1980).

More often than not, however, people do not experience any major threat to their survival. When people are basically assured of their survival, there will be neither immediate needs nor urgent motivations to produce any new values or practices. Under these conditions, culture is often used as a means for social competition for status and prestige within one's own community, and as a consequence, practices and customs of higher status groups are often adopted by lower

status groups (Richerson & Boyd, 2004). Consistent with this notion, research in both anthropology (see Henrich & Gil-White, 2001) and psychology (see Cialdini, 2001) suggests that people are more likely to adopt the beliefs and practices of those in prestigious societal positions. Because this work was done almost exclusively in cultures where everyday survival was not a major concern, it provides support for the idea that in the absence of such concerns, prestige plays an important role in the adoption of existing practices. In the presence of such concerns, however, any desire for prestige may be overridden by a more urgent need for biological, economic, and/or political survival.

Our analysis implies that the need to win this social competition for prestige and status within one's own in-group is a highly potent force that encourages people to imitate existing practices that are associated with higher status groups and regions. Dissemination of Western clothes and popular music all over the world during the past century is due, in large part, to images of power, wealth, and status conferred on the "West" during the period. Or consider fashion, which spreads by ordinary people imitating, often enthusiastically, the clothes or behavioral styles of high-status individuals such as rock or sports stars and fashion models.

The processes of production (producing values, norms, and associated practices in order to survive) and adoption (adopting existing practices from other regions or groups to gain social status and prestige) are not mutually exclusive, and thus they can operate simultaneously, although we believe that the relative dominance of one or the other process varies from case to case depending on the relative significance of survival versus social competition. Moreover, in certain societies, winning or losing in a social competition may be linked directly to reproductive success and even to one's survival. Nevertheless, we maintain that the two processes are conceptually separable and distinct because they show very different characteristics, which can be summarized in terms of the following three propositions.

Proposition 2: As elaborate cognitive and affective representations, cultural values are typically transmitted vertically, and moreover, this cross-generational transmission requires prolonged, systematic inculcation.

Like attitudes, certain values are deeply held and accompanied by both elaborative cognitive representations and strong emotional conditioning that support them (Converse, Newcomb, & Turner, 1966), whereas some other values are much more peripheral and "cheap." For example, it is quite easy and "cheap" to talk about values one believes in so as to please others. It is likely, however, that values guide the production of associated practices only if they are held strongly and deeply.

Strong and deeply held values require appropriate cognitive and emotional structures attached to them. Such values are therefore not easy to imitate or learn, let alone to

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adopt. In fact, they may have to be inculcated through teaching, parenting, and other forms of explicit education whereby local narratives and stories are used to illustrate the values. An increasing number of cultural studies have documented various ways in which core cultural values are embraced in socialization practices (see, e.g., Keller, 2007, for a review). Moreover, the core values of culture, such as individualism in the United States and collectivism in East Asia, are highlighted in local media and children's books (see Morling & Lamoreaux, 2008, for a review). Caretakers subsequently take advantage of these public meanings and icons to inculcate in their children the values that are emphasized in their localities. As a consequence, the transmission of cultural values may be expected to typically occur cross-generationally through family lines.

In line with the present analysis, much of the currently available evidence on the transmission of values focuses on vertical transmission (Schonpflug, 2009). Researchers in this area appear to agree with the present hypothesis that values are transmitted primarily through family lines. Evidence for the vertical transmission of values is in fact strong. For example, Knafo and Schwartz (2009) found positive cross-generational correlations in value endorsement; these correlations appeared to be stronger and quite pronounced for the values of tradition and security, which were deemed central in the society in question, namely, Israel.

The upshot, then, is that explicit values are associated with numerous beliefs, attitudes, and emotional conditionings. Acquisition of values, therefore, is likely to require systematic inculcation that is best achieved by parents, other primary caretakers, and educators. The values are thus likely to be transmitted vertically. Conversely, geospatial or horizontal transmission of cultural values is possible but relatively difficult.

Proposition 3: As conventionalized behavioral patterns, practices are typically transmitted horizontally because this transmission occurs through behavioral imitation (which is motivated by a desire for social status and prestige).

Practices are represented in terms of action scripts, and accordingly, their dissemination is likely to occur through behavioral imitation. From Bandura's (1977) social learning theory to a more contemporary analysis of cultural transmission by Richerson and Boyd (2004) and Tomasello (1999), as well as in work on the automatic adoption of specific behaviors (e.g., Chartrand & Bargh, 1999), there is a general consensus that behavioral patterns can be modeled, imitated, and adopted quite easily. It is important to note that much of the empirical work examines direct imitation of observed behaviors. However, this process may also be mediated by mental representations of the behaviors. For example, when one learns about someone's behavior in the form of a story about this person acting in some specific way (e.g., the story of "the little engine" working very hard while believing that she can do it!), one may imitate the person by following the mental representation of the behavior. It may not be a coincidence that people are very interested in stories of a protagonist acting in some ways to achieve his or her goals while overcoming obstacles (Bruner, 1990). A recent neuroimaging study demonstrated that stories that activate the part of the brain that represents mental states such as intentions, goals, and desires (i.e., the medial prefrontal cortex) are much more likely to be transmitted than are other stories even though the latter are otherwise comparable to the former (Falk, Morelli, Welborn, & Lieberman, 2009).

Under what circumstances will people imitate and adopt practices of a remote region or a different social group? There is a vast literature suggesting that prestige and power are some of the most potent factors that increase the likelihood of modeling and conformity (Cialdini, 2001; Henrich & Gil-White, 2001). Moreover, it is well-known that behavioral changes can occur even in the absence of any conversion of underlying beliefs (Asch, 1951). Indeed, one study experimentally demonstrated that children were more likely to imitate behaviors of a high- rather than a low-status other, although the children's imitation of behaviors of the high-status other did not persist unless their imitation behaviors were reciprocated by the high-status other (Thelen & Kirkland, 1976). The discovery of mirror neurons in the brain makes it all the more likely that behavioral imitation lies at the very base of the sociality of both nonhuman primates and humans (Iacoboni, 2009). As may be expected from this neuroscience evidence, recent social psychological work has shown that behavioral imitation can be both automatic and unconscious (Chartrand & Bargh, 1999). However, it is important to note that automatic imitation occurs only when the imitator identifies himself or herself with the model (Lakin, Chartrand, & Arkin, 2008).

In short, cultural practices are composed of scripted behavioral patterns, which in turn are represented in terms of stories about an actor behaving in a certain fashion. Such stories are far easier to transmit, and as a consequence, this transmission will not require any systematic inculcation. In fact, mimicry of behavioral patterns can be quite automatic as long as one identifies oneself with the model. One important implication is that cultural practices should transmit quite easily from one region to another as long as the first region is highly respected by the residents in the second region.

Proposition 4: Active, repeated engagement in practices gives rise to implicit psychological tendencies.

So far, we have examined in some detail the production and adoption of values and practices. We have argued that these two aspects of culture are likely to have very different characteristics in terms of the ways in which they are produced, transmitted, and disseminated. This discussion would not be complete without mentioning that it is practices, not values per se, that serve as the primary vehicle by which culture exerts its influences on the implicit psychological processes of individuals.

The socialization of culture starts very early and continues throughout life (Cole, 1996; Greenfield, Keller, et al., 2003; Greenfield, Maynard, & Childs, 2003; Keller, 2007; Lave & Wenger, 1991; Maynard & Greenfield, 2003; Rogoff, 2003; Rothbaum, Pott, Azuma, Miyake, & Weisz, 2000; Valsiner, 1989). As noted earlier, this socialization involves explicit inculcation of pertinent cultural values. But more important, through socialization individuals acquire pertinent psychological skills and tendencies that are required in order to participate in and carry out the practices of their own culture. For example, if one was born in traditional Japan, one would have been expected to use an abacus to carry out arithmetic computations. This skill would have been an important part of "being a decent child" in that society and, as such, would have needed to be acquired. Likewise, if one's culture requires good performance in "show and tell," one will have to acquire the corresponding set of skills—attending to or even crafting one's own preferences, expressing them, justifying them in public speech, and so on. These and any other cultural practices may be acquired through imitation, yet to carry them out might initially require substantial effort; when repeated a number of times, however, the willful engagement in cultural practices causes enduring changes in psychological processes (Kitayama et al., 2009). Recent research on brain plasticity strongly suggests that when engaged in willfully and repeatedly, cultural practices are likely to cause relatively permanent changes in brain pathways as well (see, e.g., Hanakawa, Honda, Okada, Fukuyama, & Shibasaki, 2003, for effects of extensive training in abacus use; see Kitayama & Park, 2010, and J. M. Schwartz & Begley, 2003, for reviews). For most adults, then, the resulting psychological tendencies—the tendencies that go along with the pertinent cultural practices—will become habitual and automatic. In other words,

repeated engagement in practices leads to changes in implicit psychological tendencies.

Much of the evidence for this point comes from systematic comparison of implicit measures of independence (versus interdependence) between Western independent cultures and Eastern interdependent cultures. Consistent with the notion that independent practices are likely to reinforce a belief that another person's behavior is internally motivated but that interdependent practices are likely to foster a belief that the behavior is embedded in relational contexts, numerous studies have documented sizable cross-cultural variations in attributions for another's behavior. Westerners tend to focus their attention on the actor's internal attributes and attribute his or her behavior to them. This bias—often called dispositional bias or the fundamental attribution error—is typically much weaker or even nonexistent in Asian groups (e.g., Kitayama et al., 2009; J. G. Miller, 1984; Morris & Peng, 1994; see Choi, Nisbett, & Norenzayan, 1999, for a review). As it turns out, the tendency to pay focused attention to a central figure in a scene (which typically is a person in social situations) is generalizable to nonsocial scenes (Masuda & Nisbett, 2001) and even to completely arbitrary geometric figures (Kitayama, Duffy, Kawamura, & Larsen, 2003), and there are corresponding cultural differences in the specific brain pathways that are engaged in focused versus holistic attention (Hedden, Ketay, Aron, Markus, & Gabrieli, 2008).

Similar cross-cultural variations in implicit psychological tendencies have been demonstrated for emotion. For example, compared with East Asians, North Americans are more likely to experience socially disengaging emotions such as pride in the self, feelings of self-confidence, anger, and frustration but less likely to experience engaging emotions such as friendly feelings, respect, guilt, and shame (Kitayama, Mesquita, & Karasawa, 2006). Moreover, whereas Americans are more likely to feel happy when they have affirmed their independence, East Asians are more likely to feel happy when their interdependence is affirmed (Kitayama, Mesquita, & Karasawa, 2006). Finally, in accordance with the hypothesis that independent practices require substantial confidence and efficacy of the personal self, North Americans are far more likely than East Asians to show self-enhancement—the tendency to exaggerate the positive uniqueness of the self (Heine, Lehman, Markus, & Kitayama, 1999). Likewise, whereas a threat to the personal, private self is bound to be a primary concern for North Americans, a threat to the social, public self tends to be a more important concern for Asians and Asian Americans (Hoshino-Browne et al., 2005; Kitayama, Snibbe, Markus, & Suzuki, 2004).

A Production–Adoption Model of Dynamic Cultural Change

Having introduced the main components of our analysis, we now turn to the question of how settlement on the frontier might breed the ethos of independence. Our basic ideas are laid out in Figure 1. The proposed model maintains that culture can change through one of two possible

Figure 1
Processes of Production and Adoption of Cultural Practices
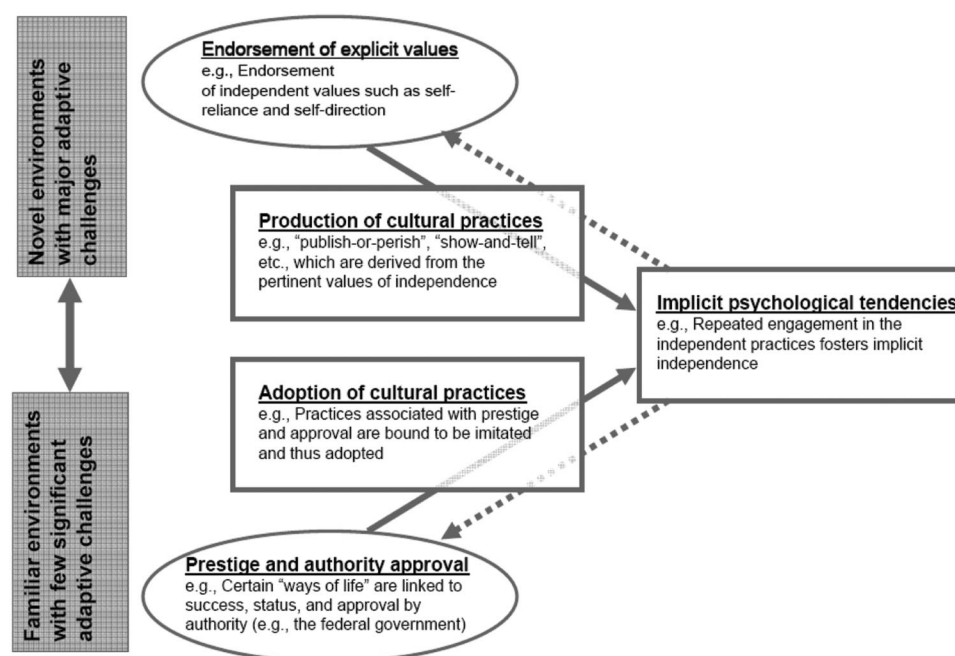
Note. Cultural practices are produced by those who strongly believe in certain values. These practices, once held in place, may be adopted through imitation when they are associated with prestige and success. In both cases, once having repeatedly engaged in the practices, people acquire the corresponding psychological tendencies that are in large part automatic, unconscious, and thus implicit.

routes. When the environment is full of major threats to survival, new values and associated practices are produced. The Western frontier of the 18th- and 19th-century United States was sparsely populated and entirely novel, to say nothing of its harsh ecology. It therefore presented a significant threat to people's biological survival. Moreover, we argue below that ecologically harsh environments with cold winters and a generally dry climate, combined with conditions of low population density and high residential or geographic mobility, make independent values such as self-reliance and self-direction more likely to be adaptive. The present model therefore suggests that new practices of independence were produced on the Western frontier.

In contrast, when the environment is familiar and presents few significant challenges to survival, people are motivated to imitate existing practices of higher status groups so as to increase their standing in a social competition for power and prestige. Another key proposal of the model, then, is that residents of the eastern United States adopted, often enthusiastically, the frontier practices of independence because of highly positive images of the frontier in terms of both wealth achieved on the frontier and authorization conferred on the frontier by the federal government. Note, however, that practices can be imitated across space and time and, as such, are far easier to transmit and adopt than are strongly held values. Aside from the fact that values require systematic inculcation to instill them in

new members of a cultural group and that as such they are mostly transmitted vertically along family lines, they do not confer any visible signs of prestige, status, or power in the way that practices do on those who adopt them. Hence, even when the eastern residents of the United States enthusiastically adopted the frontier practices, they may not have paid much attention to the explicit values underlying them.

Regardless of the specific processes involved in the acquisition of new practices (production or adoption), once acquired, cultural practices define ways of life that are taken for granted and thus tacit and implicit. People begin to engage in these practices repeatedly and willfully so as to be full-fledged members of their own cultural group. As a consequence, they acquire implicit psychological tendencies that are attuned to the practices of their culture. The upshot, then, is that an *implicit cultural ethos* (characterized by strongly independent mental biases and tendencies) must have been born on the Western frontier during the 18th and 19th centuries and gradually spread to the rest of the country to define the national culture of the United States today. In contrast, an *explicit cultural ethos* (defined by strongly held explicit values) remains and shows substantial regional variation such that independent, egalitarian values of individualism are more strongly endorsed in the western regions than in the eastern regions of the United States.

Production of Independent Values and Practices on the Frontier

As already noted, there are two distinct reasons to expect settlers on a frontier to hold more explicit values of independence. First is the self-selection involved in voluntary settlement. Persons who are willing to leave everything they know of established culture and willingly move to the frontier are more likely to have an independent mindset (see Kitayama, Ishii, et al., 2006; Oishi, 2010; Sevincer, Park, & Kitayama, 2009). Within the U.S context, when economic and political conditions worsened in eastern city centers during the 18th and 19th centuries, a number of people of European descent rebelled against the political and economic establishment and authorities by choosing to go west to seek freedom and wealth. In other words, the settlers were motivated by explicit values both against the status quo and toward new opportunities and freedom, and those who were especially motivated by these values were the most likely to leave.

Second is the adaptive value conferred on independence in novel, harsh environments that are characterized by extremely low population density, high social mobility, and lack of any significant social infrastructure, combined with an ecology characterized by cold winters and dry climate. The Western frontier of the United States was, and still is to some extent, associated with extremely low population density and a lack of social institutions (e.g., Garcia-Jimeno & Robinson, 2009). Moreover, the land is generally dry and the temperature is quite low, especially during the winter. Accordingly, settlers on the U.S. frontier often faced harsh conditions without the benefit of social infrastructures to promote their safety and survival (e.g., Stegner, 1953; Stewart, 1963; Turner, 1920). In all likelihood, to be successful and to survive, the settlers had to develop strong psychological propensities toward self-promotion, self-initiative, and self-determination and autonomy (Plaut et al., 2002; Plaut, Markus, Treadway, & Fu, 2010) and to engage in related behaviors such as preemptive attacks on potential enemies (Nisbett & Cohen, 1996). Moreover, it is often challenging to maintain reciprocity when a harsh ecology is combined with scarce resources, low population density, and high population mobility. In addition, under the harsh ecological conditions characterized by extremely low temperature and low humidity, the danger of infectious diseases is substantially lower, making it not urgently necessary to create tight top-down control over social behaviors (Fincher, Thornhill, Murray, & Schaller, 2008). Taken as a whole, these conditions may consolidate and exaggerate preexisting explicit values of independence, powerfully fostering practices that emphasize various independence values, including self-reliance, self-direction, and self-promotion.

The foregoing analysis has received support from several studies that compared nomadic herders and sedentary farmers. In a pioneering work, Edgerton (1965, 1971) compared farming and herding communities in East Africa and found that herders placed far less emphasis on conformity and obedience than did farmers. This general point

was also made by Witkin and Berry (1975) in their cross-cultural study. Moreover, herders manifested more independent cognitive features than did farmers (Berry, 1967) even when they were tested in regions that shared many features, including language and national culture (Uskul, Kitayama, & Nisbett, 2008). Because herders live in harsh, sparsely populated, dry ecological environments, the foregoing evidence is quite encouraging.

Also consistent with our analysis is the finding, noted earlier, that Americans, as a whole, are more independent than contemporary Western Europeans. Kitayama and colleagues (2009) addressed this possibility by testing college students from the United States (Michigan), the United Kingdom (Essex), Germany (Hamburg), and, as a control, Japan (Kyoto and Tokyo). They assessed several psychological tendencies that are linked with independence (e.g., personal happiness, dispositional bias in attribution). As predicted, Americans consistently showed greater implicit psychological tendencies toward independence than did Western Europeans, who in turn were more independent than the Japanese. Further, a recent review by Oyserman and colleagues (2002) showed that Americans are one of the most independent and the least interdependent peoples in the world when these characteristics are assessed in terms of explicit beliefs about the self. These findings are consistent with the hypothesis that the settlement experience has pushed Americans in the more independent direction.

A history of voluntary frontier settlement in an ecologically harsh environment characterized by low population density and high social mobility should breed an ethos of independence even in non-Western cultural contexts. Kitayama, Ishii, and colleagues (2006) examined residents of Hokkaido, the second largest island of Japan after the Japanese mainland. The island, located at the northern edge of Japan, was a wilderness until 140 years ago, when the feudal government of Japan collapsed. The new government dispatched ex-samurai warriors who had lost their jobs to establish settlements in Hokkaido. This policy was intended to defend the northern territory from Russia, which had increased its presence in the Far East around that time. This initial government-guided settlement was soon followed by an influx of farmers and peasants who moved to Hokkaido to seek new lands and wealth. Rapid population growth ensued for the next half century, although even today the population density remains the lowest, by a wide margin, among the four major islands of Japan. As predicted by the production–adoption model, Hokkaido Japanese turned out to be more independent than mainland Japanese. The Hokkaido Japanese, in fact, were no less independent than Americans on some aspects of implicit independence, including a tendency toward dispositional attribution in person perception and a tendency to be motivated by personal (vs. public) choice.

Further support for the production aspect of our model—especially the impact of self-selection—comes from a recent series of studies by Oishi on residential mobility (see, e.g., Oishi, 2010, for a review). He has shown that residential mobility is often associated with a

variety of independent mentalities. For example, mobile individuals are more likely to derive their well-being from personal achievement than are their relatively immobile counterparts. Moreover, Sevincer and colleagues (2009) found that "out-of-state" students in a German university (students coming to the university from different provinces) were higher in independence than their "in-state" counterparts (those brought up in the same province where the university was).

Additional evidence comes from work on nonstudent samples in sociology and economics. In an interesting paper, Garcia-Jimeno and Robinson (2009) presented data gathered on the amount of frontier available in 1850 in various North American, South American, Central American, and Caribbean nations. They then used these data to predict the level of democratization in each nation during the next century (1900–2007). As might be expected, the amount of frontier was significantly positively correlated with subsequent democratization (which is a likely correlate of implicit and explicit independence).

Adoption of Independent Practices (but Not Explicit Values) in Eastern Regions

New practices produced on the frontier may be adopted by residents in external "civilized" worlds where (a) the ecology has been tamed in large part, (b) highly populated city centers have emerged, and (c) largely sedentary social life is highly regulated by laws and conventions. Because nonfrontier societies do not *produce* the independent practices in any systematic fashion, this process depends on the desire of the residents of the civil worlds to *adopt* the frontier practices. What might influence the likelihood of such adoption? We argue that existing cultural practices are typically adopted by a given group of people if the culture is associated with prestige, wealth, and social status (see Cialdini, 2001; Henrich & Gil-White, 2001; Richerson & Boyd, 2004). Moreover, this process is likely to be facilitated if there is public and official endorsement of the culture by authorities such as the government or by prestigious figures such as rock or sports stars. In addition, the group that adopts the existing practices may need to have an ethos that resonates with the practices.

The U.S. frontier fits the bill. The Western frontier of the United States was rich in natural resources, producing legendary icons and numerous stories of extraordinary success. Images of wealth and status, combined with idealized images of freedom, courage, and self-determination (captured in the "American dream"), gave the Western frontier of the United States prestige among residents in the eastern regions of the country. Numerous images of wealth production from the American frontier flowed freely back to the eastern states during the western expansion, from visions of "the richest hill on earth" in Butte, Montana, to the legendary gold of Helena, Montana (once reported to have more millionaires per capita than any other city in the world). Equally important, the federal government systematically promoted the frontier discourse of the American dream to foster the unity of the nation as a whole and then to encourage both territorial expansion and economic de-

velopment. For example, President Polk in 1848 famously proclaimed of the West in an address to Congress that "the accounts of the abundance of gold are of such an extraordinary character as would scarcely command belief." We suggest that the approval of the practices by authority not only provided an image of the frontier as a legitimate extension of the United States (rather than a foreign "other" detached from the "civilization" in the East) but also added weight to the status associated with the frontier practices from the perspective of the country's eastern residents. Last, but not least, the frontier values and practices were originated by those who came from eastern regions, so it is quite possible that the frontier practices could easily be assimilated into the value systems of the eastern residents. These unique historical factors, we hypothesize, led the easterners to enthusiastically adopt the frontier practices.

How about explicit values of independence? As noted earlier, these values are unlikely to spread easily across space and time, as they are mostly transmitted vertically through family lines via systematic inculcation. Moreover, unlike practices (which are observable), values are typically invisible and thus are unlikely to confer on the recipients any visible signs of prestige or status. In addition, once practices are adopted, their meanings can be flexibly modified in accordance with the existing value systems and prevailing worldviews. For example, in their primordial forms, "show and tell" practices may initially have been invented by those who believed that self-expression was very important. But these practices may also be conceptualized as a way to brag about one's possessions. Likewise, "publish or perish" practices may initially have been invented by those who valued hard work, but they may be reconceptualized as a means for gaining power and wealth.[2] Accordingly, even when the easterners adopted the frontier practices of independence, it seems very unlikely that they equally acquired the frontier values of independence. The upshot, then, is that the difference between easterners (nonsettlers) and westerners (settlers) within the United States ought to be greater for the explicit cultural ethos of independence than for its implicit counterpart. If found, such a pattern would provide evidence for the production–adoption model of cultural change.

Ethos of Independence in the Contemporary United States: Both Unified and Regionally Diverse

Explicit ethos. Consistent with the foregoing analysis, existing evidence indicates that there is a systematic regional variation within the United States in the ethos of independence. Plaut and colleagues (2002) used a national survey on more than 3,000 Caucasian Americans with a wide age range and tested regional profiles of

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[2] Another example is that when the "show and tell" practice was adopted in a Chinese preschool, it became a class contest for rote memorization of an assigned story (Tobin, Karasawa, & Yeh, 2009). The practice in the sense of a behavioral pattern remained similar and yet the spirit of it was completely transformed once reinterpreted and reinvented in a collectivist cultural context.

Figure 2
Regional Variation in Individualism in the United States
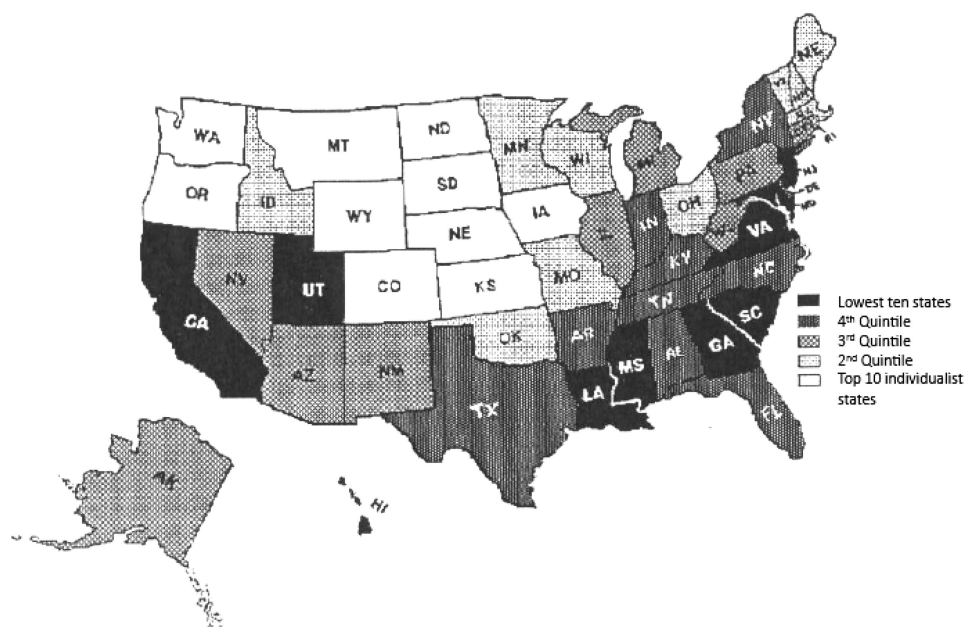
Note. Individualism was assessed by statewide statistics on several face-valid behavioral indices including the percentage of people living alone, the percentage of 65+-year-olds living alone, the percentage of households without grandchildren, the divorce/marriage ratio, the percentage of people without any religious affiliation, the percentage of people who voted libertarian in the past three presidential elections, the percentage of car pooling (vs. driving alone, reverse coded), and the percentage of people who are self-employed. Adapted from "Patterns of Individualism and Collectivism Across the United States" by J. A. Vandello and D. Cohen, 1999, *Journal of Personality and Social Psychology, 77,* p. 284. Copyright 1999 by the American Psychological Association.

explicit value dimensions underlying well-being. As expected, Mountain region residents were characterized by well-being that focused on autonomy and environmental mastery. They were also high in satisfaction with the self and yet were conspicuously low in civic involvement. More recently, Plaut et al. (2010) reported that relative to White residents in Boston, White residents in San Francisco believed their well-being to be detached from and thus more independent of specific relations or life circumstances.

One innovative way to examine explicit cultural ethos is to look at the frequency of deliberate behaviors that may be guided by certain explicit values. Vandello and Cohen (1999) used census data to examine the frequency of several face-valid behavioral indicators of individualism, including the percentage of people living alone, the percentage of households without grandchildren, the divorce to marriage ratio, the percentage of people voting libertarian in past presidential elections, and the percentage of people who are self-employed. All of these behaviors involve some type of deliberate decisions and as such they may directly reflect strongly held explicit values of independence. State-level data on these behaviors were aggregated to form an index of individualism (vs. collectivism). As illustrated in Figure 2, the Mountain West, western states in the Great Plains, and the Pacific Northwest were the most

individualistic. As may also be expected because of Asian and Hispanic influences, California and the Southwest are less individualistic today. Conway et al. (2006) used another deliberately decided behavior (government-initiated restriction) to show an analogous regional variation.

The studies reviewed above are notable because of their focus on nonstudent adults. None of them, however, examined endorsement of explicit values per se. Our recent work addressed this gap in the evidence (Park, Conway, Pietromonaco, Plaut, & Kitayama, 2009). We compared college students ($N = 578$) from four U.S. regions (University of Massachusetts–Amherst, University of Georgia–Athens, University of Michigan–Ann Arbor, and University of Montana–Missoula). We measured value priorities with Schwartz's Value Survey (S. H. Schwartz & Ros, 1995). With a factor analysis, two value dimensions of Individualism (defined positively by self-direction, stimulation, and universalism and negatively by conformity and tradition) and Anti-Power (defined positively by benevolence and universalism and negatively by power and hedonism) were identified, but the same regional patterns were evident on both dimensions.

We reasoned that explicit values are transmitted through education and socialization through family lines. We thus expected that the predicted regional variation should be especially pronounced for "long-term resi-

Figure 3

Endorsement of Explicit Values of Independence (e.g., Individualism and Anti-Power) Across the Regions of the United States
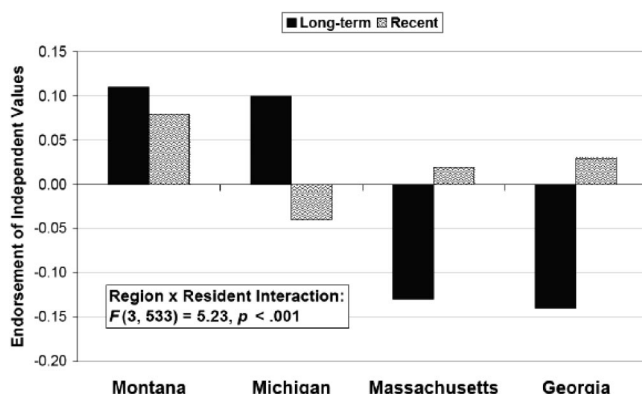
Note. These values are more strongly endorsed by "long-term residents" of Montana (a western region) and Michigan (a historically western region) than by those of two eastern regions (Massachusetts and Georgia). This variation has largely vanished among "newcomers" to the United States. Adapted from "A Paradox of American Individualism: Regions Vary in Explicit, but Not in Implicit, Independence" by H. Park, L. G. Conway, P. R. Pietromonaco, V. C. Plaut, & S. Kitayama, 2009, unpublished manuscript (Working Paper 95), Hokkaido University.

dents"—namely, those whose families have lived in the United States for generations, as their families, for the most part, likely lived in their current residences broadly defined in terms of western as opposed to eastern regions of the United States. Approximately half of the participants reported that all of the six parents and grandparents had been born in the United States. These participants were classified as "long-term residents" and the rest as "newcomers." The results are summarized in Figure 3. As predicted, for the long-term residents, both types of independence values were endorsed more strongly in the regions that historically had a frontier more recently (Michigan and Montana) than in the two eastern regions whose frontier was in the distant past (Massachusetts and Georgia). In contrast, for the newcomers, the regional variation in explicit value endorsement was completely absent. Taken together, these findings provide support for the idea that the settlement history on the frontier produced a strong explicit ethos of independence in the western regions of the United States.

Implicit ethos. Will a similar regional variation be found in implicit ethos as well? Our analysis on the adoption process in the U.S. context suggests to us that the frontier practices of independence must have been propagated backward to the eastern regions to create a relatively homogeneous national ethos of independence even while the corresponding explicit values of independence remain mostly in the original frontier regions. Anecdotal evidence abounds. For example, circulation of various stories of ostensibly frontier origin, such as "The Little Engine That Could," is not limited to any particular regions. Likewise,

certain contemporary practices that promote personal achievement (e.g., "publish or perish") or self-expression (e.g., "show and tell") are quite widespread across the regions of the United States, although their original forms likely originated on the frontier.

Further evidence may be sought through investigating the assumption that by engaging in cultural practices of independence, people acquire implicit psychological tendencies and biases toward independence. From the present analysis, it follows that there should be little or no systematic regional variation if implicit, rather than explicit, mental habits of independence are tested for. Again evidence seems quite firm, at least anecdotally. For example, one cognitive habit that is encouraged by independent practices of, say, communicating directly and saying what one believes without worrying much about situational norms is a bias to perceive the actor's intent as corresponding to his or her overt behavior. There are numerous demonstrations of this bias in social perception (referred to variously as correspondence bias, dispositional bias, or the fundamental attribution error). Early on, numerous experiments were done by Ned Jones and his students, many of whom were located back then in eastern regions of the United States (at Duke University and Princeton University; Jones, 1979). Later on, the studies were extended by numerous others including Lee Ross (at Stanford University; Ross, 1977) and Dan Gilbert (at the University of Texas at Austin; Gilbert & Malone, 1995). There is no sign of regional variation in the difficulty or ease of finding this psychological bias. Or consider another mental habit that is likely associated with an independent practice of being positive about the self and expressing and realizing this positive self, namely, the self-serving or self-enhancing bias. There are hundreds, if not thousands, of experiments demonstrating this bias (see, e.g., Mezulis, Abramson, Hyde, & Hankin, 2004, and D. T. Miller & Ross, 1975, for extensive reviews), and yet we know of no indication of any systematic regional biases of any sort for this effect either.

It would seem desirable to test these and other indicators of implicit independence across regions of the United States. That is exactly what we did in the study mentioned earlier (Park et al., 2009). We systematically tested several measures of implicit independence, including causal attribution of another's behavior (independence indicated by dispositional bias); the relative salience of disengaged (e.g., pride in self, anger) versus engaged (e.g., friendly feelings, shame) emotions (independence indicated by greater salience for the former than for the latter); personal (vs. social) predictors of happiness (independence indicated by greater weight for personal vs. social factors); and symbolic self-inflation (independence indicated by greater size of symbolic self). The results could not be clearer: The regions were no different on any of the four measures of implicit independence, with all measures showing a strong pattern of implicit independence that is typical of the U.S. samples in previous research.

Another implication of the production–adoption model is that in the absence of the adoption process, frontier regions should be more independent than the cor-

responding nonfrontier regions even in terms of implicit ethos. Three specific cases are relevant here. First, compared with Western Europeans, North Americans show consistently higher levels of implicit independence (Kitayama et al., 2009). Historically, Europeans did not always obtain tangible benefits, whether economic or otherwise, from the North American settlement. To this fact, a strong effect of national identity concerns must be added: No European nations had intentions to advocate the promotion of the foreign (i.e., American) practices. Even to this day, many Europeans retain distancing attitudes toward their North American cousins and are proud of their relatively "higher" European culture. Second, we also noted earlier that Hokkaido Japanese are also higher in some measures of implicit independence than are mainland Japanese. We suggest that Hokkaido culture has remained local, without any visible impacts on the mainstream Japanese culture because of the relative lack of economic success in Hokkaido. Thus, the independent practices (and corresponding implicit independence) generated by Hokkaido settlement did not move backward into long-established Japanese cultural regions.

Third, within the U.S. context, frontier practices were adopted by residents in the eastern regions because the practices were perceived as desirable and respectable. This would mean that certain frontier practices may not be adopted as easily if they are not perceived as desirable or respectable. It is now well established, thanks to a creative series of studies by Nisbett and Cohen (1996), that rural highland areas of the American South, Southwest, and Mountain West still carry on what may be called the *culture of honor*. This cultural ethos involves various forms of honor-related aggression and violence. Although highly adaptive for protecting one's own properties and livestock in the frontier context, this implicit ethos might be perceived as too dangerous (as it actually is), uncivilized, and/or arcane by the residents of the eastern "civilized" regions. In a case like this one, no back propagation may take place. It may not come as any surprise, then, that even today there remains substantial regional variation in the honor-related homicide rate.

Finally, yet another implication of the present model deserves careful examination. Even though many practices of independence are widely shared across the United States today, the mode of acquisition of these practices may be very different across regions: Whereas westerners produced them to meet survival challenges, easterners adopted them to meet concerns for prestige and status. Because the desire to imitate is derived in part from the pursuit of status and prestige (Richerson & Boyd, 2004), one may expect that the adoption and imitation of implicit independence in eastern regions may be more prominent among those who value power and social prestige. When the explicit values of power and prestige were correlated with different facets of implicit independence, a pattern consistent with this analysis was obtained for one of the four measures of implicit independence—namely, the salience of disengaged (vs. engaged) emotions. The correlation between the explicit values of power and the tendency to experience disengaged (vs. engaged) emotions was significantly positive (.23 < rs < .30) in the three eastern regions. But the correlation was nearly zero in Montana.[3]

Conclusions and Future Directions

The present work began with the premise that contemporary U.S. culture has a highly individualistic ethos. This, of course, does not mean that all Americans are firm believers in individualism. Nor does it imply that Americans have no social orientation or social sensitivity. To the contrary, values and beliefs are quite diverse in any given cultural group. Furthermore, both personal concerns and agendas and those that are more social coexist in all known cultures. Nevertheless, some recent evidence has made a compelling case that Americans are still unique in the world in their relatively strong emphasis on independence (Henrich et al., 2010; Kitayama et al., 2009). In this article we have reviewed some novel work that attempted to systematically understand how this individualistic ethos was historically fostered. Taken in total, the model of cultural change presented in this article has important implications for the study of within-culture variation in the ethos of independence in the United States.

According to the production–adoption model of cultural change (see Figure 1), the ethos of independence was originally created by settlers in the Western frontier regions of the United States during the 18th and 19th centuries both (a) because the settlers strongly believed in the values of independence and (b) because the frontier conditions strongly called for such values and associated practices. Subsequently, due largely to the massive success of the Western frontier and the approval of the federal government, many of the practices of independence produced on the frontier were imitated by nonsettler residents in the eastern "civilized" regions. Accordingly, implicit psychological tendencies linked to the frontier practices (implicit independence) became widely spread across the United States today. In this sense, the frontier must still be alive and well in the minds of contemporary Americans across the regions of the country. Significantly, however, because the imitation of practices does not require any learning of the associated values, residents rooted in the eastern regions still do not endorse the explicit values of independence (e.g., self-promotion, self-direction) as strongly as their western counterparts do.

To adapt the present model to the migration of U.S. ethnic minorities, it is important to consider the situational complexities that are specific to each ethnic group. For

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[3] No such pattern was evident for the remaining three facets of implicit independence. We speculate that the salience of disengaged (vs. engaged) emotions captured an aspect of implicit independence that is especially influenced by value-driven behaviors. For example, those who value power and prestige might be especially likely to choose situations involving competition and achievement, which would result in a greater propensity to experience disengaged (vs. engaged) emotions. Similar correlational patterns may be anticipated for the other facets of implicit independence once different measures of power orientation (e.g., thematic apperception measures; Winter, John, Stewart, Klohnen, & Duncan, 1998) are adopted.

example, in the case of Native Americans, westward migration during the 19th century was not voluntary. Furthermore, these groups were strongly tied to land and to their communities (Brinton, 1882). For African Americans, the original migration to the United States was forced through slavery. Later migration within the United States (e.g., the "Great Migration" from the South to other parts of the country) can be characterized as voluntary, but only in part (Arnesen, 2002). With respect to Asians and Latinos, these groups, like Native Americans, often leave intact significant ties to their land of origin. Taken as a whole, the general picture that emerges from this cursory analysis is that the production of independent practices must have been most pronounced when earlier settlers of European origin, who had cut their ties to their regions or countries of origin, voluntarily moved to the ecologically harsh Western frontier that was socially disconnected from the lands of their origin.

Altogether, we believe that the production–adoption analysis is a promising step toward a general model of cultural change. Our analysis conceptualizes U.S. regional variations as a special case of the processes that are more broadly applicable to other areas and historical periods, including the cross-Atlantic immigration during the 16th and 17th centuries and the immigration to Hokkaido from mainland Japan during the 19th century, among others. Although many excellent models of cultural change and transmission have been proposed (see, e.g., Schaller & Crandall, 2004, for a review), these models are often disconnected from the rest of the field of cultural psychology. Some of the models are perhaps too general for generating hypotheses about the development of specific cultural content, whereas others simply have not produced data that help directly explain existing cross-cultural differences (see, e.g., Boyd & Richerson, 1985). Theory-based empirical studies of cultural change are relatively rare. We believe that the present theoretical model is specific enough to produce testable predictions, and moreover, we now have at our disposal some reliable tools for measuring explicit values and implicit psychological tendencies. Future work, then, may more carefully test some further implications of the present analysis as well as extend it to other historical and regional cases.

We believe that the work presented in this article has some significant practical implications. For example, public health campaigns in the West (say, those designed to reduce drug use) might best be designed to focus on anticonformity. In fact, a recent and widely lauded anti-methamphetamines campaign in Montana focused largely on "average people" pitching anti-conformity and individualist messages such as "meth has a way of making your decisions for you" (see http://www.montanameth.org/). It is unlikely that similar campaigns would work equally well on the East Coast; instead, such campaigns might be more effective there if they were designed to highlight the prestige and status of presenters.

Along with other recent studies, the present work has established that the study of region is timely, important, and potentially highly rewarding in terms of theory build-

ing in social and cultural psychology. Furthermore, it also suggests that a rich potential exists for applying this knowledge to significant practical issues involving health and well-being across the regions of the United States. We therefore believe that a systematic effort to understand U.S. regional variations will be increasingly important in the near future in the field of social and cultural psychology.

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