The Frontier:
Voluntary Settlement and Cultural Change

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Innovations and inventions, whether in technology, in science, in business – or more generally, as we argue below, in culture– involve the active production of new ideas, as well as effort to make them work and to promote them in order for them to be successful. These efforts can eventually lead to payoffs in economic, symbolic, and/or political terms. If these ideas are successful economically, politically, and symbolically, then they are likely to be adopted by many other people and, thus, become widely disseminated. Equally importantly, however, any serious innovation or invention entails a variety of risks. The new ideas may not work. The technologies or novel business models may not receive much support from consumers, colleagues, or fellow group members. One may go bankrupt or have her reputation tarnished. Because of these risks, people who are highly successful in the mainstream may have little incentive trying out anything that is radically new. Moreover, their mode of thinking may be so entrenched in old, existing ways of thought that it may well be very hard for them to think in new ways. All innovations and inventions may then be expected to emerge in the periphery of any given domain under consideration.

In the domain of business, for example, firms that are highly successful with major technologies or business models often fail to catch up to innovations that arise from elsewhere. For example, up until the 1980s and even into the 1990s, Kodak and SONY were at the cutting-edge in the areas of camera film and music players, respectively. However, in the last decade or so these companies have undergone severe setbacks caused by new technologies and emerging cultural trends. It is these latter technologies and cultural trends that define the completely new, emerging
standards. Similar considerations apply to the history of psychology. For example, the new ideas that formed the cognitive revolution in the 1950s came not from psychology itself, but from the neighboring fields of linguistics and computer science. Looking at social psychology -- the sub-discipline that requires careful and astute observations of daily social life, it is evident that many of the early pioneers, such as Muzafar Sherif, Fritz Heider, and Kurt Lewin, were all immigrants from Europe (Sherif from Turkey, Heider and Lewin from Germany). As immigrants, these scholars were not fully embedded in the mainstream of US society. As a result, they may well have been freer in their thinking, more open to new possibilities, and more willing to take chances to see if their innovative ideas might work. More generally, much of innovation in both science and technology in the previous century occurred in the US. It is probably no coincidence that the US happened to be a country that had been relatively recently established by voluntary settlers.

The goal of the present chapter is to explore the idea that voluntary immigration to and subsequent settlement in the frontier is linked to the ethos of independence. This thesis has been examined under the rubric of the voluntary settlement hypothesis (e.g., Kitayama, Conway, Pietromonaco, Park, & Plaut, 2010). We use “frontier,” as a term that broadly encompasses all geographic regions (e.g., Western states in the 18th century US) and spheres of human activity (e.g., cutting-edge science, technology, as well as fashion and art) that are at the periphery of existing social entities such as existing countries or regions (and the values, practices, and ways of thinking that are common to them), as well as conventions and common practices in given technological and business circles. By “ethos,” we mean a complex of beliefs, values, and practices that as a whole is grounded in certain key ontological ideas and ultimate values such as freedom, community, purity, democracy, and the like. The ethos of independence,
then, is defined by a complex of meanings and practices that are based on the independence as a value and ultimate goal.

The present chapter is comprised of three main parts. First, we will consider contemporary US culture through the theoretical lens of the voluntary settlement hypothesis. We will evaluate the merit of the hypothesis by examining existing survey research and cross-cultural experimental findings as well as census data with respect to both cross-cultural variations and within-US regional variations. Second, we will turn to Japan and examine its northern island called Hokkaido, which has a settlement history that is analogous to that of the US – particularly, the Western frontier of the US. As such, Hokkaido provides an extremely important test case of the voluntary settlement hypothesis. Third, we will switch gears and argue that especially in the 21st century, in science, fashion, art, and business, the frontier has come to be defined, increasingly vis-à-vis human activities within a respective domain of business, art, or technology. We argue that cosmopolitan city centers (e.g., Berlin, London, and New York) constitute one prominent case of this sort. Such city centers embrace a wide range of activities, including not only those that may best be seen as the “mainstream” of the society-at-large, but also those that do not fit neatly into the existing cultural models – activities that are more experimental, unconventional, even counter-cultural and avant-garde in both spirit of the people who engage in them and the outputs they generate. We thus hypothesize that “settlement” in cosmopolitan cities is likely to be linked to independence. After examining these three domains of empirical work, we will conclude by suggesting some new future directions for research.

Voluntary Settlement and the Contemporary US

How can we define American mentality? In the beginning of the 19th century, Alexis de Tocqueville, the French historian and diplomat, toured the US and left behind a rich array of observations, which illustrate how the society he saw there was strikingly
different from his native France in terms of its passion for equality and freedom. For example, he noted, “… democracy [which is taking roots in America] seeks equality in liberty (de Toquville, 1865p. 546).” He contrasted this idea of equality against equality that is guaranteed by “restraint and servitude (p. 546),” which he attributed to socialism. At the same time, de Tocqueville also identified Christianity as the central moral or spiritual guiding force in the new continent. In another section of the book, he stated “… all the sects of the United States are comprised within the great unity of Christianity, and Christian morality is everywhere the same (1862/1969).”

In short, de Tocqueville highlighted both individualism (equality and freedom) and religiosity as fundamental constitutive facets of the US society— a point that is very much consistent with a recent observation by Cohen, Hall, Koeig, and Meador (2005). These researchers contend that the notion of religiosity as intrinsically and personally motivated and as separate from social, extrinsic forces is uniquely individualistic. Far from being universal, this idea is linked most closely to Protestant denominations in the US (see also, Li et al., 2012). Indeed, in the recent deceases, social and behavioral science research has recapitulated this same theme by noting the remarkable degree to which Americans as a whole are highly individualistic and religious.

Explicit Independence

Explicit values across the world. One important source of insights into the nature of contemporary U.S. culture comes from the World Value Survey (e.g., Inglehart & Baker, 2000). Based on a comprehensive survey covering more than 60 countries, Inglehart and Baker identified two value dimensions. One is a dimension defined by traditional vs. secular values. Items defining this dimension include “God is very important in my life” and “I favor more respect to authority.” Affirmative answers to these items define traditional values, whereas negative answers define secular values. Another of the two dimensions that were identified in the survey is the dimension of
survival vs. self-expression values. Items defining this dimension include “I give priority to economic and physical security over self-expression and quality of life” and “you have to be very careful trusting other people.” Affirmative answers to these items define survival values, whereas negative answers define self-expression values.

Figure 1 illustrates the pertinent results (Inglehart & Baker, 2000). Country means are computed for each of the two dimensions and plotted in a two-dimensional space. It is evident that poor countries in South Asia, Africa, and Latin America tend to occupy the quadrant defined by traditional and survival values. Ex-communist countries tend to be quite secular and yet survival oriented, reflecting the fact that many of these countries faced (and still do face) enormous economic challenges. Asian, Confucian societies are similarly secular and, yet, they are substantially less survival oriented, more strongly endorsing self-expression values. Western European countries, especially those with Protestant traditions strongly endorse both secular values and self-expression values. Relative to Protestant Europe, Western European countries with Catholic traditions are substantially less oriented toward self-expression values and, in this regard, they are similar to Confucian Asia.

It is notable that within this schema, the US is an outlier. It is quite high in self-expression values – as high as its Western European cousins. However, the US is extremely low in secular values or, conversely, rather high in traditional and largely religious values. As the authors themselves noted, “the United States seems to be a deviant case … its people hold more traditional values and beliefs than any equally prosperous society (p. 49).”

It makes sense that economic development and prosperity essentially erases any values placed on survival concerns. Instead, people in prosperous countries tend to emphasize happiness, life satisfaction, and expressiveness of the self. Another overall trend is that as a function of economic prosperity people tend to be less traditional and
more secular. However, here lies a paradox of American exceptionalism. How come the most prosperous country of the world is so traditional and religious – forming a clear exception to the general trend toward secularism?

It may be the case that traditional values in general and religious values in particular tend to be endorsed more under conditions of ontological threat. In support of this analysis, Inglehart and Baker (2000) documented that there was a substantial increase of traditionalism in general, and religiosity in particular, after the collapse of the Soviet Union in most countries in Eastern Europe. Various threats that caused fundamental insecurity in meaning, values, and national defense may have caused this systematic cultural change. In this regard, it is important to bear in mind that the US has a long history of massive immigration and settlement over the course of its establishment as a nation and that it has undergone territorial expansion over the course of several hundred years. Insofar as frontier environments are replete with a variety of threats that engender one’s basic sense of security, the history of settlement might be crucial in understanding the extraordinarily high levels of religiosity evident in the contemporary US.

For the purpose of the present chapter, there is one important limitation in the World Value Survey. It does not focus on independence per se. Although self-expression values are likely to form a facet of independence, these values are defined primarily in terms of reduced needs for survival and increased desires for better life in general and self-expression in particular. Because of this, one may expect that nations should tend to be high on “self-expression” as long as they are prosperous regardless of whether they value equality, freedom, and other values that are linked to independence. This may explain why East Asian countries are just as high in “self-expression” values as are some of the Western European countries (see Figure 1).
Explicit attitude toward independence and interdependence. Over the last two decades or so, many cross-cultural psychologists have used measures of independent vs. interdependent self-construal (Singelis, 1994) or, correspondingly, those of individualism vs. collectivism (Triandis & Gelfand, 1998) to see if the country means of attitudes toward these two values or value clusters might vary systematically. One problem with existing scales of independence vs. interdependence is that these scales have very few reverse-coded items. Hence, interdependence is nearly completely confounded with acquiescence (Oishi, 2010). Although acquiescence itself could be an integral part of interdependence (or collectivism) (Smith & Fischer, 2008), this fact still raises concerns and should call for caution in interpreting results using these measures. Nevertheless, the emerging pattern is still informative.

About a decade ago, Oyserman, Coon, & Kemmelmeier (2002) reviewed existing data that were based on the scales of independence vs. interdependence (or individualism vs. collectivism). The results were two-fold. First, when global regions of the world were considered as a whole, collapsing all data across individual studies conducted within each region, the results are highly systematic. As shown in Figure 2, the US is the most independent and the least collectivistic. Second, however, this conclusion was mitigated by the fact that there was substantial within-region variation. Thus, the effect sizes associated with the comparisons of cultural regions were often small.

Two important considerations must be taken into account in understanding why cultural variations are quite systematic and yet can appear rather weak. First, when reporting one’s own attitudes, participants are likely to use their knowledge about others as a reference point. This means that in judging whether they are independent (or interdependent) people will use the average level of independence (or interdependence) within their culture as an anchor and will judge whether they are more or less
independent (or interdependent) relative to this anchor (Heine, Lehman, Peng, & Greenholtz, 2002). Note that people in any given cultural group are likely to use people in their own group especially when their group is geographically separated from other cultural groups (as in Japan in comparison to, say, the US). If reference group effects are strong, they can eliminate all cultural variation in the mean country levels of independence or interdependence. While the fact that global cultural variation arises when a large amount of data are collapsed shows that a real cultural difference is likely to exist, this consideration implies that there should be a substantial amount of noise stemming from idiosyncratic and cross-culturally disparate choices of reference groups.

Another consideration that is important in understanding the seemingly weak cross-cultural difference in the explicit attitudes toward independence vs. interdependence stems from the possibility that explicit attitudes and judgments could be influenced by social desirability. For example, in many parts of Asia, including Japan, individualism has become highly desirable in recent decades, especially after World War II. This, however, does not necessarily mean that people have changed at the level of implicit behavioral styles that are likely to be formed through socialization processes and, as such, to be shaped before one begins to form explicit attitudes toward independence or interdependence (Kitayama, 2002). It is possible, then, that cultural variation might prove to be much more substantial if implicit psychological tendencies are tested. If nothing else, then, we should carefully examine psychological consequences of this socialization process.

**Implicit Independence**

Implicit independence (or interdependence) implies a style of cognition, emotion, and motivation that is grounded in the corresponding value of independence (or interdependence). When certain values (e.g., independence or interdependence) predominate in a given region over a reasonably extended period of time, these values
are used to generate a variety of behavioral routines, conventions, and scripts, or simply cultural practices. Once born into the cultural world comprised of or constituted by these practices, people necessarily perform these practices again and again, insofar as these practices define the way of life within their cultural world. Kitayama and colleagues (Kitayama et al., 2009; Kitayama & Uskul, 2011) have pointed out that repeated engagement in the cultural practices is likely to foster a variety of psychological processes including cognition, emotion, and motivation in such a way that these processes are attuned to the practices that are available in the particular cultural world. Recent work has suggested that this socialization process entails substantial changes in neural connectivity in the brain (Kitayama & Uskul, 2011). The emerging psychological processes are likely to be automatic because they are well practiced. Automatic processes are often unconscious or subconscious as well, although they can also be highly contingent on situational cues. Thus, these processes have been called *implicit* in contrast to the *explicit* values, attitudes, and beliefs that are assessed in the survey studies reviewed above. Several dimensions of implicit independence have been proposed.

**Implicit cognitive independence.** Certain cognitive characteristics are likely to be linked to the cultural values of independence (vs. interdependence). **1. Focused attention.** People who are attuned to a variety of independent (vs. interdependent) practices that emphasize self-focus, personal goals, and self-realization (simply called “independent people” hereafter) are likely to focus their attention on what they want or what they seek to accomplish, whereas interdependent people are likely to be more holistic, attending more broadly to the goals and expectations of others. Hence, independent (vs. interdependent) people are likely to be more focused (or less holistic) in their patterns of attention (Kitayama, Duffy, Kawamura, & Larsen, 2003; Masuda & Nisbett, 2001). **2. Dispositional bias.** Independent people may be expected to project
their own schema of the self as internally motivated to other people, thereby inferring another’s person’s internal dispositions when observing his or her behavior. Importantly, this tendency toward dispositional inference may occur even when there is a clear situational constraint on the behavior (Choi, Nisbett, & Norenzayan, 1999; Miller, 1984).

Emotions can also reflect implicit independence. 3. **Socially disengaged (vs. engaged) emotions.** The hypothesized focus on one’s goals and desires among independent (vs. interdependent) people may result in a greater propensity to experience both socially disengaged positive emotions, such as pride and feelings of self-confidence, that arise when these goals and desires have been accomplished and socially disengaged negative emotions, such as anger and frustration, that arise when such personal goals and desires have been compromised or interfered with. While all emotions are inherently social, socially disengaged emotions motivate the self to express one’s internal attributes (as in pride) while asserting their interests and goals when they are interfered with or compromised (as in anger). In contrast, socially engaged emotions motivate the self to accommodate others with a goal of creating and sustaining harmonious social relations. Conversely, independent people are unlikely to experience socially engaged positive emotions, such as friendly feelings and respect for others, that arise when interdependent goals are accomplished, and are less likely to experience socially engaged negative emotions, such as guilt and feelings of indebtedness, that arise when interdependence is threatened or compromised (Kitayama, Mesquita, & Karasawa, 2006).

4. **Happiness stemming from personal achievement (vs. social harmony).** Kitayama and colleagues have hypothesized that independent (vs. interdependent) people will be most happy when they achieve goals that reflect independence (vs. interdependence) (Kitayama, Markus, & Kurokawa, 2000, Kitayama, Ishii, Imada, Takemura, & Ramaswamy (2006); Uchida & Kitayama, 2009). Independent people are more likely to feel happy when they experience socially
disengaged (vs. engaged) positive emotions, whereas interdependent people are more likely to feel happy when they experience socially engaged (vs. disengaged) positive emotions.

As already implied above, motivation constitutes the core of implicit independence. 5. **Personal (vs. social) goals.** Independent people are more likely than interdependent people to hold personal (vs. social) goals and to feel motivated to achieve them. Oishi and Diener (2001) have shown this to be the case. 6. **Symbolic significance of the self.** Relative to interdependent people (who value significant others), independent people place the utmost significance on the personal self, which may be reflected in the size of mental representations of the self (vs. others). When asked to draw their own social network by using circles to designate people in the network, independent people use larger circles to designate the self (vs. others) (Kitayama et al., 2009). 7. **Self-uniqueness.** Independent people define themselves in terms of unique internal attributes such as abilities, personality traits, and interests, whereas interdependent people do so in terms of social roles and categories that are shared with others. Hence, independent people may be expected to view the self as more unique and to take actions to reflect that belief more than interdependent people do (Kim & Markus, 1999).

**US-Asia Comparisons.** Nearly all of these measures of implicit independence have been developed in a large number of studies that compared Americans with East Asians. This body of research has provided compelling evidence that compared to East Asians, European Americans are more focused in their patterns of attention (e.g., Kitayama et al., 2003; Masuda & Nisbett, 2001), more dispositional in person perception (Kitayama et al., 2009; Miller, 1984), more disengaged in terms of their emotional experiences (Kitayama et al., 2006), more oriented toward personal (vs. social) happiness (Kitayama et al., 2006), more inclined toward personal (vs. social) goals...
(Oishi&Diener, 2001), larger in their symbolic selves (Kitayama et al., 2009), and higher in preference for self-uniqueness (Kim & Markus, 1999). Although much of this literature is based on data from college undergraduates in the respective countries, the pattern remains the same when non-student samples from a wide age range are tested (Kitayama, Karasawa et al., 2012).

Are Americans more independent than Western Europeans? If the mentality of Americans is shaped by the history of frontier settlement, Americans should be expected to be more independent even when compared with their Western European cousins. In a recent study, Kitayama and colleagues (2009) found that as compared to both British and Germans, European-Americans are more focused in their patterns of attention, more disengaged in their emotional experiences, have a more personal sense of happiness, and larger in their symbolic representations of the self. The only measure that did not show the predicted difference concerned dispositional bias in attribution. In all cases, Western Europeans were significantly more independent as compared to an Asian group (Japanese). The average effect size between European-Americans and Western Europeans were small to moderate (Cohen’s $d = .29$), indicating that the two regions are relatively similar, although the US is consistently more independent. Importantly, there is virtually no difference between the two Western European groups (Cohen’s $d = .02$). Asians (as represented here by Japanese participants) are substantially less independent (or more interdependent), relative to Western Europeans (Cohen’s $d = .59$). The amount of difference that separates Asia from Western Europe is roughly twice as much as the amount of difference that separates Western Europe from the US. In addition, the effect size associated with the US-Japan comparison is quite substantial. The average Cohen’s $d = .87$, which in fact, qualifies as “large” in accordance with current statistical convention.
Baby names. One important aspect of independence that is particularly important in frontier settlement is the value placed on uniqueness of the self (Kim & Markus, 1999). As discussed previously, innovation and novelty are keys to survival in frontiers whether the frontiers are defined geographically or more in terms of activity domains (e.g., business and science). Frontiers likely both select for and foster uniqueness. Believing the self to be unique may have been adaptive in the harsh conditions of the frontier because such a belief might encourage self-reliance in a setting in which institutions were less developed and stable, and tightly connected social networks were uncommon. An emphasis on uniqueness might also have encouraged optimism in a setting in which survival was difficult and success rare. Acts that expressed uniqueness might also have served as an important signal of one’s value orientation in a cultural context that placed (and continues to place) a premium on independence. In addition, uniqueness encourages creative problem solving (Förster, Friedman, Butterbach, & Sassenberg, 2005), which would have been advantageous in frontier conditions where supply chains and manufacturing were limited and where unfamiliar environments might present unexpected challenges.

One important behavior that is based on this value concerns the names given to babies (Varnum & Kitayama, 2011). Naming is an act of considerable cultural, familial, and personal significance (Liebersen & Bell, 1992) and has a number of psychological, sociological, and economic consequences (Christenfeld & Larsen, 2008). The choice of a name for one’s child is a deliberate act that many view as an expression of their values. Thus, the choice of a relatively popular name may be a reflection of preferences for, or a strong value placed on, conformity vs. uniqueness. As may be predicted from the hypothesis that frontier settlement encourages greater value to be placed on uniqueness of the self (vs. conformity to social conventions), Varnum and Kitayama (2011) have recently found that naming practices do in fact differ rather markedly
between countries recently founded by Europeans (like the US) and European countries. In Figure 3, the country-wise percentages of baby boys and girls with one of 10 most common names are plotted against a measure of individualism proposed by Hofstede (Hofstede, Hofstede, & Minkov, 2010). As can be seen from this figure, as compared to nearly all European nations, settler nations (the US as well as Canada, Australia, and New Zealand) are substantially more individualistic and, simultaneously, show much weaker preferences for conventional names and, by implication, stronger preferences for unique names. It is worth noting these frontier societies tend to be more multicultural, hence a greater variety of names may be available. However, within- country analyses of regional variation in naming practices reveal that frontier status remains a significant predictor of relatively unique names even when controlling for ethnic diversity, suggesting that such differences cannot solely be accounted for by ethnic homogenity (see Varnum & Kitayama, 2011; also discussed later in this chapter).

**Regional Variation Within the US**

Historically, systematic westbound settlement from Europe to North America took place over several centuries. At the same time, during the 18th and the 19th centuries, a very much analogous process took place within the US. People who did not fit-in in the emerging cities on East Coast, as well as those who sought the promise of land and new opportunities for success, migrated to the west. This history of westbound frontier settlement is likely to have left permanent marks in the American mentality. The ontological insecurity and physical danger, which are likely associated with frontier settlement, may account for the unusually high level of religiosity and emphasis on conservatism and tradition among Americans (relative to other equally wealthy Western European counterparts, Inglehart & Baker, 2000). More important for the purpose of this chapter, this history may well have been instrumental in increasing the level of independence among Americans. An increasing number of empirical studies on regional
variations within the US can be brought to bear on this discussion. In this section, we first discuss regional variation in explicit values of independence in the US. We then turn to differences in behaviors that reflect these values. After that we turn to evidence regarding implicit independence.

**Regional variation in explicit independence.** Do any regional variations remain within the US such that Western states are more independent relative to their Eastern counterparts? Park et al. (2009, reported in Kitayama et al., 2010) examined the value priorities of college undergraduates at four state universities in Massachusetts, Georgia, Michigan, and Montana, and observed that independent values such as individualism and anti-power values are more strongly endorsed in both Montana and Michigan as compared to Massachusetts and Georgia. Importantly, this pattern was evident only for those whose parents and grandparents had all been born and raised in the US. Supposedly, many of these participants’ families had lived in similar regions for generations. Interestingly, there was no regional variation for those whose families immigrated to the US relatively recently. Kitayama et al. (2010) noted that because Michigan was on the western frontier of the country until the beginning of the 19th century (and Montana until far more recently) as a consequence strong independent values had existed within these regions and, moreover, have been handed down over generations.

**Regional variation in collectivist and conformist behaviors.** If explicit values differ across regions, behaviors that are guided by these explicit values should also vary. We may therefore expect that in terms of behaviors that are guided directly by these explicitly endorsed values residents of the Western states should be more independent than those in Eastern states. Vandello and Cohen (1999) used census data to examine several face-valid 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 part presidential elections, and the
percentage of people who are self-employed. Using these behaviors as an indicator, both the Mountain West and the Pacific Northwest prove to be substantially more individualistic than Eastern and Southern regions of the US.

Regional variation can also be observed in behaviors that reflect conformity (such as the relative prevalence of popular names). As noted earlier, we may assume that giving uncommon and, thus, relatively unique names to newly born babies is an expression of independent values such as autonomy, uniqueness, and self-expression. Varnum and Kitayama (2011) found that conventional names are indeed less common in frontiers (Varnum & Kitayama, 2011). More children born in New England received popular names (either the most popular, or one of the 10 most popular in their respective state that year) than children born in the Mountain West and Pacific Northwest. Further, there was a strong negative correlation between date of statehood (a proxy for recency of settlement) and the prevalence of popular names. These results are illustrated in Figures 4-a and b for baby boys and girls, respectively. This held even after controlling for other factors, such as income, population density, and ethnic composition. Similar results were found when comparing Western and Eastern Canadian provinces and (as previously noted) when comparing Frontier countries (i.e. the US, Australia, Canada) with European countries.

Beyond reflecting regional differences in values, naming practices might also play a role in maintaining these differences. A reanalysis of data collected as part of the Michigan Wisdom Project found that people with one of the 10 most popular names nationally in their year of birth scored lower on an adapted version of Singelis’ (1994) independence subscale than did those who did not have one of the 10 most popular names in their birth year (Varnum, 2011). While this finding is by no means definitive, it suggests another reason why preferences for uniqueness are important for understanding the effects of voluntary settlement. If having a relatively unique or popular
name affects how one views the self, and how one is viewed by others, then perhaps differences in naming practices help to perpetuate differences in values between frontier and non-frontier regions.

As we noted before, naming is an act of considerable significance and one that involves a good deal of deliberation. One might wonder whether regional variation due to voluntary settlement may also be found in less deliberate acts of choice. For example, Stephens, Markus, and Townsend (2007) found that working-class Americans and middle-class Americans show differences in preference for uniqueness vs. conformity when choosing pens (with working-class people being more likely to choose a pen that was similar to others pens in an array of choices and being more likely to choose the same pen as a confederate).

Might similar differences be also present between frontier and non-frontier regions? Varnum (in press) has recently addressed this question by re-analyzing the data reviewed by Bond and Smith (1996), who had reviewed existing Asch-style (1952) conformity studies and found significant variation in the strength of these effects as a function of culture. Varnum (in press) performed an analysis of 91 studies included in Bond and Smith’s (1996) meta-analysis and found that there was regional variation in these effects within the US as well. Conformity effect sizes are smaller in frontier regions of the US than in areas with a longer history of settlement. Further state-level conformity effect sizes are positively correlated with the frequency of popular names.

**Regional variation in implicit independence.** Recall that an earlier work discussed above (Kitayama et al., 2009) finds that relative to their Western European counterparts, European Americans have more narrowly focused attention, experience more socially disengaged emotions, have a more personal sense of happiness, and have a symbolically inflated view of the self. These differences on the whole can be attributed to America’s history of frontier settlement during the past several hundred
years and the absence thereof in Western Europe during the same period. Following this line of thought, it might seem only reasonable to anticipate that residents in Western states of the US would be higher in implicit independence compared to those in Eastern states. One notable finding by Park, Conway, Pietromonaco, Plaut, and Kitayama (2009), reported in Kitayama et al. (2010), concerns the measures of implicit independence used in the previous study comparing Western Europe and the US. Using these instruments, researchers tested residents in Massachusetts, Michigan, Georgia, and Montana and found absolutely no regional variation in implicit independence.

Although puzzling at first glance, the absence of any regional variation in implicit independence within contemporary US may prove to be important for understanding some peculiarities associated with frontier history within the US. Kitayama and colleagues (2010) have hypothesized that 1) settlers in the frontier are likely to hold explicit values of independence and, moreover, that 2) they generate a variety of practices that are rooted in these values in their efforts to survive and prosper on the frontier.

Kitayama et al (2010) further hypothesized that explicit values and practices are likely to be transmitted very differently. To begin with, values and practices are likely to be transmitted through very different channels. This may be the case because to understand and develop true appreciation for values such as freedom and democracy or, alternatively, tradition and social harmony, requires extensive and systematic inculcation in terms of examples, role models, and, most of all, convincing stories and discourses (McAdams, 2006). Culturally variable public representations such as children’s books and texts for moral education (Imada, 2010; Tsai, Miao, & Seppala, 2007; see Morling & Lamoreaun, 2008, for a review) serve this important function. What this means, among other things, is that values are likely to be transmitted vertically through generations by explicit education and inculcation of children by caregivers in any
given culture (Knafo & Schwartz, 2009; Schonpflug, 2009). We may therefore expect that values do not travel very well through space and time. In the present context, this explains why there still remain sizable regional differences in value profiles across the US (as previously noted) even though the frontier disappeared more than one full century ago.

In contrast, practices are very different. Independent practices that are generated, such as expressing one’s own views or seeking one’s personal goals or uniqueness, constitute the new, emerging folkways of the frontier. Unlike values, practices are observable action routines or scripted behaviors and, as such, they can be easily imitated and adopted by others. Since Bandura (1977), social psychologists have investigated the significant role played by automatic imitation in transmission of behavioral routines (Chartrand & Bargh, 1999). Automatic mimicry is especially likely when the model is higher in status (Cialdini, 2001; Lakin, Chartrand, & Arkin, 2008; Thelen & Kirkland, 1976). Hence, practices can be disseminated quickly across time and space to different regions.

Kitayama et al. (2010) pointed out that one important feature of the Western frontier of the US was that it was highly successful economically at least in the eyes of East coast residents. Moreover, the settling of the frontier was fully endorsed by the federal government. In combination, then, it would seem sensible that frontier practices were imitated and adopted by East Coast residents. This adoption process might be responsible for the absence of implicit independence, insofar as implicit independence is shaped through actively behaving in accordance with available practices. Furthermore, this may also explain why Western Europeans remain less independent in implicit mentality as well as in explicit value endorsement. Western Europeans have had relatively negative, if not pejorative, attitudes toward Americans. They were therefore less likely to have tried to imitate practices that are linked to America.
Hokkaido: Japan’s Northern Frontier

Our understanding of the settlement process can be informed by similar processes that might be at work in other regions of the world. One important test case is Hokkaido – a northern island of Japan, which was a wilderness till the middle of the 19th century. Ethnic Japanese – mostly farmers and peasants – immigrated with the support of the national government to transform the island into a territory of Japan in order, in part, to defend against Russia, which extended its influence in the Far East in the mid-19th century. The settlement was voluntary in the sense that it was often decided in the units of local villages. By no means was it enforced by the government although it was placed squarely within the governmental policy of national defense. Today, Hokkaido has been assimilated into the national culture of Japan. Yet, evidence is also mounting that its settlement history has left visible marks on the regional culture of Hokkaido and the mentality of the people living therein.

Census data reflecting explicit independence. An examination of the census data provides an initial indication that Hokkaido might in fact be quite individualistic even today. Recently, Hitokoto and Uchida (under review), using similar methodology to that used by Vandello and Cohen (1999), examined regional variations in the prevalence of behaviors that are linked to independent values. Among the 45 prefectures of Japan, Hokkaido is ranked quite high in divorce rate and in the proportion of elderly people living alone – in fact, it ranks as highly as major metropolitan areas of Tokyo and Osaka (Hitokoto, Murabe, Narita, & Tanaka-Matsumi, 2010).

Implicit independence. Are the residents of Hokkaido more independent than residents of mainland Japan? Kitayama et al. (2006) addressed this question with respect to a few aspects of implicit independence. First, the researchers found that compared to mainland Japanese, Hokkaido residents – especially those born in Hokkaido – tend to define happiness in terms of personal achievement. Second, they
also found that relative to mainland Japanese, Hokkaido Japanese take personal choices more seriously, and are more likely to provide strong justification for these choices. Third, compared to mainland Japanese, Hokkaido Japanese – especially those born in Hokkaido – were highly dispositional in person perception.

At present, the evidence is still sparse, largely limited to the studies summarized here. Yet, the available evidence is consistent with the voluntary settlement hypothesis, which would predict a strong cultural ethos of independence in Hokkaido due to its recent settlement history.

**Cosmopolitan Cities as the Frontier of the 21st Century**

In a geographical sense, at the beginning of the 21st century frontiers have disappeared almost everywhere across the globe. Yet, it appears that (some) people keep inventing new frontiers in space, in science, in business, and in all other domains of activity. In the recent decades, the notion of the frontier is coming to be redefined in terms of the technological, economical, or societal and cultural boundaries of human activity. In this section, we argue that just as the historical frontier in the U.S fuelled American individualism, the frontier of today may be located in cosmopolitan cities that fuel modern civilization’s orientation toward individualism.

By cosmopolitan cities we mean urban metropolitan areas that are characterized by moral commitments to universalistic values associated with a world citizen identity (freedom, autonomy, and egalitarianism; Appiah, 2006, Simmel, 1903) and often are melting pots of diverse ethnical groups (Rentfrow, Mellander, & Florida, 2009). Moreover, cosmopolitan cities are commonly centers of economic development and serve as the headquarters of global financial networks (Florida, 2002; see also global city index, Sassen, 2001). Examples of cosmopolitan cities include New York and San Francisco in the U.S., Berlin and London in Europe, and also booming cities in other parts of the world, such as Istanbul, Singapore, and Hong Kong.
In combination with their greater economic resources, the egalitarian, free-spirited ethos of cosmopolitan cities may offer ample economic, personal, and social opportunities to succeed for ambitious, creative, and open-minded people. These opportunities are often associated with the high-tech information industry, research and development, as well as arts and fashion. At the same time, because these opportunities are independent of people’s socioeconomic and ethnic backgrounds and because they are not linked to traditional social networks, the risks involved can be substantial. Cosmopolitan cities often harbor high-risk/high-return enterprises that are open to everyone who dares to take the risk. Just as the historical frontier did, cosmopolitan cities thus may fuel an independent ethos by attracting independently inclined people who are oriented towards self-reliance, personal goal pursuit, novelty, and risk taking.

**Are Voluntary Settlers More Independent?**

Previous research provides some initial data pertaining to the present thesis that settlement in cosmopolitan cities might be linked to independent mentality. Some existing studies have examined the personality traits of those who migrate or not migrate to different cities in Finland (Jokela, 2009; Jokela, Elovainio, Kivimäki, and Keltikangas-Järvinen; 2008). The relevance of this work with respect to our current thesis is uncertain, however, because the urban municipalities included in this study (Helsinki, Kuopio, and Oulu among others) might not fully qualify as world-class cosmopolitan centers. More importantly, residential mobility (i.e., people’s tendency to relocate) is related to independence. In a series of studies Oishi and colleagues (2010) demonstrated that people’s propensity to change their place of residence is associated with a more independent mentality. For example, personality traits, rather than group membership, were more central to the self_DEFINITIONS of frequent movers than to those of non_movers. Furthermore, residents in mobile communities engaged in less pro-communal behaviors (e.g., supporting the local baseball team) than those in more stable
communities (for a summary, see Oishi, 2010). This work, however, does not take into account the destination of residential move (i.e., e.g. the move to cosmopolitan vs. non-cosmopolitan cities). The exact destination of residential moves might prove to be more important than the moves themselves. Our analysis implies that it is residential moves to cosmopolitan cities, not any residential moves in general, that are likely to be closely tied to independence.

Furthermore, there is a small, but important body of literature documenting a greater extent of independence held by city-dwellers relative to residents of more rural areas (Kashima et al., 2004; Matsumoto, Willingham, & Olide, 2009; Yamagishi, Hashimoto, Li, & Schug, 2012). For example, Yamagishi and colleagues (2012) used an abstract figures task (Kim & Markus, 1999) and found that residents in urban areas in Japan show greater preferences for unique items for themselves than do more rural residents. On the basis of this finding, the researchers argued that city environment is inherently low in social constraint and thus hypothesized, “City air brings freedom (page 38).” While the finding itself is clear and beyond any dispute, it is not clear to us whether urban environment is inherently low in social constraint. Some aspects of the environment are surely less constrained, tuned more toward novelty, creativity, experimentation as can be seen in cutting-edge sciences as well as avant-garde movements in arts. Nevertheless, some other elements of any urban city centers such as business and political establishments are inherently more conservative, conventional, and perhaps even more constrained than some rural towns and villages. It might therefore seem more reasonable to hypothesize that the independent orientation that is more evident in urban (vs. rural) areas is due, for most part, not to any inherent characteristics of the urban environment in general, but to the fact that many of the urban residents voluntarily moved to the city at some point in their lives.
To address these important gaps in knowledge, Sevincer and Kitayama (2012) compared matched samples from a cosmopolitan city (Hamburg) and a non-cosmopolitan city (Braunschweig) in Germany. Both cities are comparable in many aspects (geographic location, education level, predominant religious denomination) but Hamburg was judged to be more cosmopolitan by German participants in a pretest. As indicators of independence, the researchers assessed participants’ propensity towards personal (vs. social) goal pursuit by asking them to report on the goals they planned to pursue in the near future. The extent to which participants pursued goals primarily aimed at personal success, such as “getting a promotion,” versus goals aimed at establishing social relationships (e.g., “visit my family”) or promoting group welfare (e.g., “do social work”) was taken an indicator of their tendency toward independent goal pursuit. Moreover, participants’ propensity towards novelty was assessed using an abstract figures task (Kim & Markus, 1999). As predicted, students who voluntary moved to Hamburg to attend the university were more independent on both measures than those who voluntarily moved to Braunschweig and students who never moved (i.e., those native to Hamburg or Braunschweig, respectively).

The fact that the Hamburg natives were no more independent than their counterparts in Braunschweig indicates that the city air might not inherently be independent (i.e., less constraining). Instead, the critical variable might prove to be settlement to urban areas rather than urban environment per se. This may be the case because, as we argued earlier, any urban environment is extremely diverse, representing a complex mixture of both the mainstream of the society (which is likely to be highly conventional and even traditional) and elements that are newer, more novel or experimental, surely much less constrained, and avant-garde.

**Independence and Choosing Where to Live**
Data reported by Sevincer and Kitayama (2012) indicate that people’s motivation toward independence does affect their residential choices. In one study participants indicated their goals (personal vs. social) and their connectedness with others. Their preference for cosmopolitan (vs. non-cosmopolitan) cities was assessed by two measures: First, participants listed the three U.S. cities in which they would most like to live if they were to move out of their current city. These cities were coded for cosmopolitanism by two independent raters. Second, participants were presented with ten pairs of U.S. cities. The cities in each pair were matched in geographic location, size, and wealth, but differed in cosmopolitanism (according to the results of a pretest with another group of Americans). For each pair, participants indicated, in which city they would prefer to live in. The number of times participants choose the more cosmopolitan city was taken as an indicator for their preference for cosmopolitan cities.

The key finding was that participants’ independence correlated positively with their preference for cosmopolitan cities. Of importance, participants’ independence did not correlate with their favorite cities’ size or wealth. Thus, although cosmopolitan cities are on average bigger and wealthier than less cosmopolitan cities (Florida, 2002), independent people do not simply prefer cosmopolitan cities because of their size or absolute wealth. This finding suggests that it is indeed specific features linked to cosmopolitanism (e.g., available opportunities to achieve success) that attract independently inclined people.

**Conclusions**

The frontier attracts independent people. Settlers of frontiers therefore tend to endorse explicit independent values and, moreover, they tend to engage in behaviors that are guided by these values. Furthermore, settlers of frontiers tend to develop cultural practices that reflect these values. Their implicit psychological tendencies tend to be modified in accordance with their explicit independent values. The different forms of
implicit independence discussed earlier in this paper will thus result. This general thesis has received substantial support from research on contemporary US mentality, within-US regional variations, and Japan’s “wild north”, as well as research focusing on immigrants to cosmopolitan cities.

Our work is consistent with recent work on the link between residential mobility and independent, individualistic mentality (Oishi, 2010). What we have added to this literature is that it is probably not residential mobility per se, but residential mobility to the frontier broadly defined – both geographic frontiers and cosmopolitan cities – that fosters independent mentality. Future work should further address this possibility.

We have largely left open the specific mechanisms underlying the association between frontier settlement and independence. Our findings, taken together with previous research on residential mobility, suggest that self-selection is one important mechanism. Those who settle on frontiers may tend to be more independent to begin with and tend to be higher on personality traits such as openness to experience. Such differences in personality may in part be genetic, thus those who engage in voluntary settlement on frontiers may differ in genotype from those who do not choose to do so.

One candidate is DRD4, a dopamine receptor gene which has been linked to novelty-seeking and risk-taking (Munafò, Yalcin, Willis-Owen, & Flint, 2008). In an important study, Chen and colleagues (Chen, Burton, Greenberger, & Dmitrieva, 1999) have found that there is a close association between the prevalence of the 7-repeat variety of the DRD4 gene (the variety that is linked to novelty seeking and risk-taking) in a given cultural population and the distance the group traveled in the distant past from Africa. Moreover, this association cannot be accounted for chance alone (Matthews & Butler, 2011), suggesting the operation of selective pressures in the cross-cultural variations in the prevalence of the gene polymorphisms. Another gene that may be important is 5HTTLPR, a serotonin transporter gene which has been linked to cross-
national variations in individualistic (vs. collectivistic) values (Chiao & Blizinsky, 2010). Future work should test whether genotype might be linked to the decision to migrate to cosmopolitan (vs. provincial) cities or to engaging in cutting-edge science (vs. more conventional science). Genes may not only push people to settle on frontiers, but may also play a role in the maintenance of regional variations in tendencies like independence and non-conformity long after geographic frontiers have vanished.

Another important mechanism especially with respect to geographic frontier settlement is selective environmental pressures. One factor that might prove to be important pertains to the prevalence of pathogens. The parasite-stress hypothesis holds that the presence of infectious disease causes behaviors and values to be adopted that reduce the likelihood of transmission (Schaller & Murray, 2011). Both collectivist values and conformity have been proposed as adaptations to environments where infectious disease was (and is) more common. Such tendencies may be adaptive as they promote norms (such as adherence to tradition and avoidance of outgroup members) which may reduce disease transmission. Indeed, cross-national variation as well as state-level variation in collectivism have been linked to the prevalence of disease (Fincher, Thornhill, Murray, & Schaller, 2008), as has cross-national variation in conformity (Murray, Trudeau, & Schaller, 2011). Further, regional variations in collectivism within the US have been linked to pathogen prevalence (Fincher & Thornhill, in press). Pathogens were likely less common in areas of the US that were more recently frontiers (and indeed are less common today in such regions). Thus relatively low disease prevalence may be one factor that encouraged independence on the frontier, and perhaps may continue to promote related values and practices.

Genes and germs are important but they are likely not the whole story. Uprooting oneself from family and community in order to settle on the frontier was likely a more attractive choice for those with a greater sense of relational mobility. Similarly, those who
choose to move to the modern frontiers of cosmopolitan cities also likely find it easier to
enter into new friendships and relationships (and to leave behind old ones).
Communities that are composed of such people also are probably places in which
relational bonds are relatively weak, and relational mobility high. As relational mobility
itself has been linked to independence (Falk, Heine, Yuki, & Takemura, 2009; Schug,
Yuki, Horikawa, & Takemura, 2009), this may be another mechanism involved in the
creation and maintenance of differences between frontier and non-frontier regions.

Last, but not least, there will be a host of psychological mechanisms linking
frontier settlement to independence. Sevincer and colleagues have hypothesized that
the frontier symbolizes an independent lifestyle (e.g., freedom, self-realization, and
nonconformity) and, because of this symbolic association, it may activate independent
mindsets (Sevincer & Kitayama, 2012; Sevincer, Kitayama, Pradel, & Singmann, 2012).
Moreover, this association may also motivate independent people to choose to settle in
the frontier via the mechanism of prototype matching between personality and location
(Niedenthal, Cantor, & Kihlstrom, 1985). These possibilities deserve more careful
scrutiny in the future.

In conclusion, the frontier presents a unique vantage point for cultural psychology
theories and research. As we see it, the frontier is the key in understanding mechanisms
underlying cultural change. The spirit of independence, nurtured and reinforced in the
frontier, may be instrumental in forging new forms of culture, which may subsequently be
spread to other regions if they are successful in economically, symbolically, and
politically. In the process, the initial spirit of independence may sometimes drop out and
the frontier culture may eventually be assimilated into the existing, supposedly much
less independent or more interdependent forms of life. Nevertheless, the frontier will
surely leave its trace in the existing cultural forms and, in fact, our analysis is consistent
with the recent worldwide trend toward independence and individualism insofar as during
the last several centuries it is both cultural freedom and technological innovations that help cultural, political, and economic entities flourish and succeed. A much more concerted research effort on the frontier is well justified. It in fact may prove to be indispensable to achieve some reasonably comprehensive theoretical understanding on processes involved in production and change of cultural meanings and practices.
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Figure 1. Locations of 65 societies on two dimensions of traditionalism vs. secularism and survival vs. self-expression orientation. Adapted from Inglehart & Baker (2000).
Figure 2. Relative locations of major world regions (vis-à-vis the US) on the dimensions of individualism (or independence) and collectivism (or interdependence). Positive scores on the individualism dimension (x-axis) means less individualism indicated by survey responses from primarily college student samples, whereas negative scores on the collectivism dimension (y-axis) means more collectivism. Most regions are both less individualistic and more collectivistic relative to the US although the average effect size is only small to moderate. See text for a discussion of why this cultural difference is both systematic and weak. Adapted from Oyserman et al. (2002).
Figure 3. Country-wise percentages of baby boys (a) and girls (b) with one of the 10 most common names, plotted as a function of Hofstede’s country-level individualism scores. Adapted from Varnum & Kitayama (2011).
Figure 4. State-wise percentages of baby boys (a) and girls (b) with 10 most common names in the US, plotted as a function of date of US statehood. Adapted from Varnum & Kitayama (2011)