



Abstract We argue that culture is not a rigid or static entity. Instead, it is dynamic, in constant flux across individuals within cultures, and across time. In this article, we use the dimension of individualism vs collectivism (IC) as a specific and limited aspect of culture, within and between the United States and Japan, to highlight this notion. We analyze briefly social changes in the United States and Japan to suggest the changing nature of this dimension in both cultures. We re-present data reported elsewhere (Matsumoto, Brown, Preston, & Weissman, 1993; Matsumoto, Weissman, Preston, Brown, & Kupperbusch, 1994) that challenge our stereotypic notions of IC in the American and Japanese cultures. We discuss previous data on subgroup cultural differences within an American sample. In Study 1, we reanalyze data from this previous study using unconventional techniques to examine within-individual and within-culture variability on IC. In Study 2, we report new data from a second sample of Japanese individuals that are considerably different from previous data, further highlighting the dynamic nature of culture within an ethnically and racially homogeneous group; and we replicate the unconventional analyses reported in Study 1. Finally, we discuss the empirical and theoretical implications of culture as a dynamic and fluid, not fixed, entity.

Key Words collectivism, culture, individualism, Japan, United States

David Matsumoto, Tsutomu Kudoh
and Sachiko Takeuchi
San Francisco State University, USA
Meisei University, Tokyo, Japan

Changing Patterns of Individualism and Collectivism in the United States and Japan

Culture is a multifaceted construct with both subjective, psychological elements and objective and social elements. While several dimensions have been used to characterize the subjective elements of culture (Triandis, 1972), individualism vs collectivism (IC) is arguably one of the most important (e.g. Hofstede, 1980; Kluckhohn & Strodtbeck, 1961; Mead, 1967; Triandis, 1972). IC refers to the degree to which a culture

Culture & Psychology © 1996 SAGE
London, Thousand Oaks, CA and New Delhi
Vol 2: 77-107

encourages, fosters and facilitates the needs, wishes, desires and values of individuals over groups. Members of individualistic cultures see themselves as separate, unique and autonomous. Collectivistic cultures, however, foster group needs, and their members see themselves as fundamentally connected with others (Markus & Kitayama, 1991). In individualistic cultures, personal needs and goals take precedence over those of others; in collectivistic cultures, they are sacrificed to satisfy the group.

There is substantial literature demonstrating the theoretical relevance and empirical utility of IC (see Triandis, 1994). Researchers around the world agree on the basic concepts of IC (Hui & Triandis, 1986), and IC-like dimensions can be used to predict and interpret cultural differences without relying on stereotypes or impressions. Many studies demonstrate the utility of IC in explaining cultural differences in behavior, such as in expression, perception and antecedents of emotion (Gudykunst & Ting-Toomey, 1988; Matsumoto, 1989, 1991; Wallbott & Scherer, 1988); self-monitoring and predicted-outcome value on communication (Gudykunst et al., 1992); speech rate and perceptions of speaker credibility (Lee & Boster, 1992); family values (Georgas, 1989, 1991); teaching styles (Hamilton, Blumenfeld, Akoh, & Miura, 1991); and conflict avoidance (Leung, 1988).

We argue that culture is not a rigid or static entity. Instead, it is dynamic, in constant flux across individuals within cultural groups, and across time within individuals. We will examine these notions in a United States–Japan comparison. We challenge views of culture, via IC, as a relatively fixed entity by noting sociocultural shifts in the United States and Japan, and by examining previously published data on IC as measured in individuals in these two cultures. Then, in Study 1, we reanalyze previous data using non-traditional analytic techniques to document the large degree of heterogeneity within individuals and groups in IC related tendencies. In Study 2, we replicate these analyses on new data from a different sample of Japanese subjects. We also contrast their data with previous Japanese data, highlighting the existence of group- and individual-level differences within the Japanese culture. We begin with a description of what we mean by culture, how we view homogeneity vs heterogeneity within cultures, and a review of traditional notions of IC in the United States and Japan.

Culture

Culture, in the broadest sense of the word, encompasses many different aspects of life and living. For example, culture refers to the values, attitudes and opinions of a group of people. Culture also refers

to tradition, custom, heritage and history. Culture reflects learned patterns of action and behavior, from birth and child-rearing practices to marriage and mate selection customs and death rituals. Culture reflects race, ethnicity and other demographic attributes. Culture reflects government systems, social institutions, architecture. Culture, in its broadest sense, reflects the way of life, in its fullest meaning, for a group of people that is handed down from generation to generation.

Elsewhere, the first author (Matsumoto, 1996) has argued that culture is an abstract concept used to categorize similarities within and differences between groups of people. That is, we invoke the concept of 'culture' when we observe similarities across individuals within groups on psychological, behavioral and social constructs; and we invoke the concept of 'culture' when we observe differences between groups on such constructs. Moreover, not only do we invoke culture as a result of our observations; additionally, the concept of culture feeds back and reinforces such similarities and differences. Thus, it serves as a macro-, social construct that provides a framework within which such similarities and differences are promulgated. In this fashion, culture shares a reciprocal and integral relationship with ways of living.

In our work as psychologists, it has become important and useful to distinguish between objective and subjective aspects of culture (Triandis, 1972). The subjective aspects of culture refer to the psychological, introspective aspects of our lives and our selves that reflect culture. These include our values, attitudes, beliefs, opinions, and the like. We contrast these with social institutions, physical artifacts, architecture, and the like—all equally but different aspects of culture. As we have focused on subjective aspects of culture, it has become increasingly important to identify meaningful dimensions of cultural variability on the sociopsychological level. With such dimensions, individual and group differences on subjective culture can be considered, studied, measured and incorporated into cross-cultural theory.

A number of such dimensions exist and have been proposed by writers in the past. These include individualism vs collectivism (IC); power distance, uncertainty avoidance and masculinity (Hofstede, 1980); status differentiation (Matsumoto, 1991); high vs low context (Hall, 1966); tight vs loose cultures (Pelto, 1968); and the like. These types of dimensions provide researchers and theorists with concrete ways in which to understand differences in subjective culture that are considered meaningful in some fashion to living and social behavior. One of the most commonly used dimensions, in fact, is IC, which is the focus of the bulk of this article.

Yet, we cannot forget that these dimensions are merely a single

aspect of subjective culture, which itself is only a single aspect of the many facets of culture. Culture in its broadest sense cannot be distilled into psychological dimensions. This distillation may be necessary for our current theoretical and empirical work in cross-cultural psychology, because broader definitions and operationalizations of culture may be too diffuse for empirical, and thus theoretical, work. But we cannot lose sight of the fact that these dimensions are approximations of bits and pieces of culture, and are not necessarily culture in its broadest sense themselves.

Culture: Homogeneous or Heterogeneous?

Culture is often assumed to be a relatively simple construct that is constant and consistent across the individuals within that culture. This is apparent to some degree in theoretical work in cross-cultural psychology, although some writers do recognize the inherent 'fuzziness' of the construct of culture. Still, cultural characterizations and differences between groups of people are discussed as if they are true for most people within those groups.

The assumption of culture as a relatively simple construct that is constant across individuals within culture is especially apparent in our empirical methods. Part of the reason for this assumption is the fact that the relationship between the actual behaviors and observations made and the label 'culture' is not perfect. Within-group behavior that is not necessary exactly alike but 'similar enough' is considered a manifestation of culture. Thus, although there are bound to be differences within cultures on behaviors, we nevertheless categorize them as representative manifestations of a culture. Likewise, differences between cultural groups are not necessarily exactly opposite in form or content; instead, they are 'different enough' for us to invoke the label of culture to explain such differences when observed.

The label of culture can be powerful. Differences within groups can be ignored and pigeon-holed into a single cultural characterization, and similarities between groups can be ignored and characterized as differences. In this way, it may also be relatively easy to assume more homogeneity within cultures, and more heterogeneity between cultures, than actually exists.

Some readers may disagree with the above characterization of typical descriptions of culture. While it may be true that many writers acknowledge the existence of heterogeneity with regard to cultural constructs within groups, such an acknowledgment is surely lacking in our empirical work. Researchers often assume that people of a certain

cultural group are all equally and validly representative of the cultures within which they reside. This assumption is made because researchers rarely include methodological checks involving actual measurement of their samples on dimensions thought to be operational underlying the supposed cultural groups being tested. Instead, we use cultural labels to describe groups of individuals as if those labels were accurate and homogeneously valid for all people within those groups. In the past, we often obtained samples from different countries (rather, universities within cities within countries), and assumed there was some underlying cultural difference between them. When differences were found, they were usually interpreted as reflective of differences in culture between those groups of subjects. However, culture is assumed to exist between the countries, and culture is assumed to operate in those subjects. All subjects are assumed to be relatively homogeneous with regard to their culture, and relatively heterogeneous with respect to other cultures. Whereas individual differences within groups on the behavior or variable of interest are generally accounted for in traditional between-group testing techniques, such differences on the level of the proposed classification differences between the groups are rarely accounted for.

With such procedures, it is no wonder that our theoretical notions of culture are themselves bound by such practices. By engaging in methodological practices that limit our ability to gauge the heterogeneity of culture within groups, and within individuals, we also limit our ability to incorporate notions of heterogeneity into our theoretical frameworks involving culture. Many of the traditional statistical manipulations used to test group differences aid us in ignoring individual differences. While past practices have found it difficult to recognize the existence of heterogeneity in our definitions of culture, we may need to recognize the importance of such heterogeneity in our future work involving culture.

We contend that culture is not a static entity. The way of life—customs, rituals, behaviors, attitudes, values and opinions—changes across time for any social group and the individuals that comprise those groups. Those changes may occur for many reasons, including changes in affluence, material resources required to live, increased contact with people from other cultures, and the like. Those changes may occur gradually over the course of many, many years, or relatively quickly (e.g. because of intrusion due to war). In addition, individuals harbor cultural values, beliefs and practices to different degrees. Thus, there is always a dynamic tension between culture that is shared by a group of individuals and each of the individuals separately.

The fluidity of culture should be observed in its heterogeneity within cultural groups. Moreover, as culture is a multifaceted construct, its fluidity should be observed also in its heterogeneity within individuals. The dynamic nature of culture should be observed in changes in these aspects of culture across time in the same individuals. The dynamic nature of culture should also be observed in changes in culture across time within cultural groups.

These notions of culture challenge traditional notions and practices with regard to culture in fundamental ways. In the remainder of this article, we focus on one dimension of cultural variability—IC—within two social/national contexts—the United States and Japan—to exemplify the flexible nature of culture we have briefly described.

Traditional Notions of IC in the United States and Japan

American culture has typically been viewed as individualistic. 'Rugged individualism' has been a cornerstone of American history, and characterizes much of the reconstruction of historical events in folklore and literature. Americans tend to view themselves as autonomous, independent people who are fundamentally separate from others. In the United States, each person 'marches to the beat of a different drummer'. Americans are taught to stand up for their individual rights, and that all people are created equally. American individualism encourages self-expression and the pursuit of individual dreams and goals, and highlights personal emotions. It shuns group conformity as a sign of a lack of individuality, and encourages the questioning of authority rather than obedience. Being anti-conformist and resistant to authority are often viewed as positive qualities.

Still, despite its emphasis in the past, American individuality has been complemented by large dosages of collectivistic concerns for larger groups. Nationalistic concerns, for example, were quite strong during wars throughout American history, at least up until the Vietnam conflict. Although individualism may have been the cornerstone of American culture for several centuries, it was often tempered by collectivistic concerns for three important collectives in American history—family, church and community. Thus, it may be safe to say that American culture, in its historical roots, may have been characterized not so much by a complete individualism across all facets of life, but rather by a contextualized individualism tempered by collectivistic concerns for some number of important collectives (although the type of collectivism itself may have been individualized).

Japanese culture, on the other hand, has typically been characterized as collectivistic (e.g. Benedict, 1946; Matsumoto, in press; Reischauer, 1988; Triandis, 1994). Some writers (e.g. Benedict, 1946; DeVos, 1973; Hearn, 1894) have suggested that this collectivism may have its roots in the fact that the relative lack of natural resources for living may have forced groups of individuals to adopt collectivistic patterns of behavior in the past in order to survive. Indeed, only a small fraction of the total land space in Japan is usable for agriculture. With major centers of populations around relatively limited numbers of geographical areas, population density tends to be quite high, now as in the past. High population density, coupled with limited natural resources and a long history, may have institutionalized collectivistic concerns on the part of the Japanese culture, which indeed may have been necessary in the past just for survival. The influence of wars with other countries, and especially of considerably long periods of infighting (e.g. Sengoku Period, 16th century), may have served to further heighten these types of concerns.

Although there are many other countries in the world that are collectivistic, and while the Japanese culture has embodied collectivism throughout its history, Japan has gained prominence in the social science literatures in the latter half of this century. This focus stems from the economic growth of Japan, the fascination of social scientists with this growth, and the relative availability of the society and its people for study. From the 1950s through the 1970s, Japanese people took advantage of the power of collectivism and channeled their energies into selfless work for the common good. Through years of individual sacrifice and social commitment, the Japanese built a society that became one of the world's greatest economies.

The Japanese work ethic formed the basis of a cultural rubric that focused on individual sacrifice and social obligations. This rubric was based on a standard of group cohesion and harmony, and obedience to elders and higher-status others. Collectivism formed not only a pervasive cultural framework; it was also the basis of their morality. To be sure, Japanese culture harbored many of these qualities prior to recent history, and references to them can be found in history and literature (e.g. Dore, 1958; Hendry, 1987). These attributes were extensions of an already existing culture.

Anecdotal Evidence for Changing Patterns of Culture

As we discussed earlier, culture is not a static, rigid entity. It is dynamic and ever-changing, reacting to as well as producing changes

in society and individuals. It is dynamic because of the flux of demographics, affluence, population density, resource availability and improvements in communication and transportation technologies, and the interaction of these factors with individual psychologies. These factors change daily, and we increasingly witness dramatic cultural shifts around the world in relatively short spans of time. These changes are possible only when culture is defined by sociopsychological dimensions, and not by bounded concepts such as race or geopolitics. These changes should be manifest in changes in IC-related tendencies, as one aspect of culture.

Despite these historical roots, American culture with regard to IC tendencies seems to have undergone considerable shifts in the last 40 years (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985). Increased affluence, the lessening of nationalistic struggles in the international arena and changes in law and social order may have contributed to such transitions. Some commentators have suggested that although individualism remained a cornerstone of American culture, it may have lost the collectivistic components toward families, churches and communities over these years. In fact, Hofstede's (1980) study of IC tendencies in work-related values across 50 countries placed the American culture as the most individualistic of all those surveyed (his data were collected in the late 1960s and 1970s). The period of the 1970s and 1980s have come to be known anecdotally as the age of total freedom and indulgence, as individualism in America was tempered less and less by collectivistic concerns.

Today, however, some commentators suggest that this individualism is again being tempered, with a resurgence of collective values with regard to families and communities (e.g. Bellah et al., 1985). Several factors may contribute to these trends. Cultural shifts in the United States may be a result of the increased role of women in society, and their generally more collectivistic nature. That is, women tend to be more concerned with others, and tend to place more value on harmony and cooperation, downplaying competition. The increasing diversity of a US population that essentially harbors more collectivistic cultural values may also bring about more collectivism. In the corporate world, economic changes have often forced a new vision of values in business marked by increased conservatism, interdependence and collectivistic values.

In Japan as well, anecdotal evidence suggests that the younger generation embodies a different set of cultural values from older ones, and surveys have supported this contention. For example, Ishii-Kuntz (1989) analyzed data collected from the Public Opinion Survey on

Attitudes Toward Society conducted by the Prime Minister's office in 1986. The original survey included 7,739 respondents, and two of the interview questions dealt specifically with collectivistic attitudes, one concerning individual devotion to country, the other concerning attitudes toward societal vs individual profits. Younger males had the most individualistic attitudes of all males, while older males had substantially greater collectivistic attitudes and values. Middle-aged females tended to have more collectivistic values than younger and older females, although the differences were not as large as for males. When compared with similar data obtained annually since 1971, however, the decrease in collectivistic values and increase in individualistic values is very clear. Younger people also valued individual profit greater than societal profit, regardless of gender.

This trend appears to have continued until today. In 1994, a survey sponsored by Hakuhodo Advertising's Institute of Life and Living sampled 1,000 19- to 22-year-olds, and found that the percentage of youths who want to live an unstructured life had increased since a decade ago, as had the percentage of respondents who reported that they did not want to put all of their energy into any one particular thing. More than half reported that results are more important than process, and the number who reported that money is the key to a good life also increased. These attitudes are clearly at odds with the traditional values of collectivism fostered by the previous generation.

Japanese cultural changes have important implications, especially for the business sector. Many companies find themselves recruiting college graduates who are at odds with the 'system'. In particular, many Japanese youths question the reward system of the mainstream, collectivistic culture. Japanese managers view many youths with disdain, being preoccupied with individual reward without the concomitant obligation of individual sacrifice and work ethic that characterized an earlier generation.

The Measurement of IC on the Psychological Level in Individuals

Despite our recognition of the importance of culture in theoretical and empirical work in psychology, the field has been relatively slow to develop and use psychometrically valid and reliable ways of measuring it. The major attempts at measure development have centered on IC-related values, attitudes and behaviors on the individual level. Our ability to measure IC on the level of the individual is crucial not only for the improvement of the quality of our empirical work, but also for

the continued development of our conceptual understanding of this aspect of culture and the link between theory and research. We need to assess formally individual- and group-level variation on culture, and take into account variability due to these factors in our theories and studies involving culture. Individual-level assessment offers us the only alternative to accomplish such tasks. In the remainder of this article, we focus on IC as a component of culture to highlight ideas concerning heterogeneity and fluidity vs rigidity and homogeneity of culture. Crucial to our ability to do so is our reliance on existing measures of IC on the individual level.

The most notable efforts to develop such a resource have been made by Triandis and his colleagues (e.g. Triandis, McCusker, & Hui, 1990), Hui (1988) and Schwartz and Bilsky (1987). Triandis's technique involves a multi-method assessment of IC-related tendencies across a variety of psychological constructs, including values, attitudes, norms, opinions, self-perceptions, and the like. Individuals rate multiple items for each construct, and are classified as either individualistic or collectivistic based on their overall scores. On the individual level, Triandis refers to these classifications as *idiocentrism* and *allocentrism*, respectively (Triandis, Leung, Villareal, & Clark, 1985).

Likewise, Schwartz's method involves individuals' endorsement of a broad base of value statements that reflect individualistic and collectivistic values. In addition, other value systems are also addressed, including maturity, love, and the like. On the basis of this measurement, individuals can be classified as either individualist or collectivist.

While there is considerable empirical support for the reliability of these methods, we have argued elsewhere (Matsumoto, 1996; Matsumoto, Brown, Preston, & Weissman, 1993; Matsumoto, Weissman, Preston, Brown, & Kupperbusch, 1994; Preston, Brown, Weissman, & Matsumoto, 1993; Weissman, Brown, Preston, Tafe, & Matsumoto, 1992) that single-score classification of individuals as either individualists or collectivists does not do justice to the complexity and richness of IC conceptually. Instead, we have contended that IC should be measured, not assumed, across multiple ecological contexts and in relation to multiple social relationships and groups; single-score or single-item approaches to its measurement cannot summarize an individual's attitudes or values on IC because it conceptually specifies context-specific tendencies, thus requiring assessment across those contexts. For example, a person may harbor collectivistic tendencies in one context (e.g. home) but relatively individualistic tendencies in another (e.g. work). Differences in IC values and attitudes across

contexts are crucial to a conceptual understanding and empirical measurement of IC, especially because people in collectivistic cultures make greater distinctions across social contexts than people from individualistic cultures (Triandis, Bontempo, Villareal, Asai, & Lucca, 1988). Thus, it becomes a conceptual necessity to demonstrate differences in IC behavioral tendencies in relation to different social relationships and contexts because these differences themselves are reflective of the IC construct, rather than single scores that globally summarize an individual's tendencies.

These concerns are especially important when measuring IC tendencies in collectivistic cultures. In addition to collectivism, Japan is also a very context-specific culture (Hall, 1966), which encourages different values, attitudes and behaviors in different contexts. It is not uncommon to observe a person engage in a certain behavior in one context, and the opposite behavior in another. In the United States, such distinctions are often used as a basis for judgments of two-facedness or hypocrisy. Thus, single-score assessment of IC tendencies has been considered as appropriate, much as has single-score assessment of personality dimensions, and the acceptance of this approach is partially rooted in the individualistic cultural frameworks within which psychological theories and methods occur. These frameworks assume cross-situation and -context consistency in behavior, which is itself an individualistic construct.

Hui's (1988) method of IC measurement addresses this potential limitation. This method involves individuals' ratings of IC-related values and behaviors with relation to specific relationships, such as family, kin, neighbor, colleague, and the like. Separate sets of items address each social relationship, and ratings are averaged across items within relationships to produce an IC score for each relationship. Also, scores are averaged across relationships to produce a General Collectivism Index. Although we view this test as a step in the right direction, it does, however, have an inherent methodological flaw in that averaged scores are not comparable across relationships because the items producing those scores are different. Comparisons across relationships, therefore, are confounded by item differences. It is impossible to interpret differences in IC scores across relationships as reflective of differences in IC tendencies themselves or differences due to the nature of the items.

A possible solution to this problem involves cross-relationship assessment of IC tendencies using the same set of items. We have developed such a technique, called the Individualism-Collectivism Assessment Inventory (ICAI). The ICAI involves a rating of 25 items

related to IC attitudes, values and behaviors, in four different social relationships—with family, close friends, colleagues and strangers. Subjects rate the items in two domains, once as values and guiding principles, a second time as frequency of actual behaviors. We opted to include these two rating domains because we considered the separate assessment of values as guiding principles and self-ratings of actual behaviors as important; in fact, the difference between values and actual behaviors may itself be important to the distinction between individualism and collectivism, and would be impossible to test without separate measurement. The four relationships were chosen because we wanted to sample relationships that are familiar and meaningful to most people; also, our pilot work in test development indicated that four relationships were the most that could be assessed without undue strain on the subjects. The items were selected on the basis of the previous work by Triandis, Hui and Schwartz. We selected items that focused on described general values related to social interaction (e.g. obedience to authority, social responsibility, sacrifice and loyalty) rather than rely on specific statements tied to single actions. Universal values such as love and security were not included, based on Schwartz's (1990) assertion that those 'maturity' values serve both individualists and collectivists. Because the same items are used across relationships, they are written as general statements that are applicable as either values or behaviors in relation to interaction with the four relationships (see Appendix for a listing of the items in the ICAI).

We have used the ICAI in a number of studies that establish its internal, temporal and convergent validity (Matsumoto et al., 1993, 1994; Preston et al., 1993; Weissman et al., 1992). The results of factor analyses and multidimensional scaling procedures have led us to conclude that the most reliable method of scoring involves the averaging of ratings across the 25 items within each relationship and rating domain. Using this scoring method, internal reliability has been shown to be quite high (approximately .90 across all relationships and domains). Temporal reliability has also been quite high (ranging .70–.90). Correlations exist between the ICAI and the Rokeach Value Survey and the Adjective Check List, demonstrating its convergent validity. (The interested reader is referred to Matsumoto et al., 1994, for more details.) To our knowledge, it is the only test available that includes multiple items, multiple relationships and multiple rating domains related to IC tendencies and that meets psychometric standards for reliability and validity involving items that do not confound relationships.

Individual and Group Variation on the ICAI in the United States and Japan

Our previous work involving the ICAI has demonstrated some aspects of culture that challenge our traditional notions of this construct, especially in the United States and Japan. For example, we administered the ICAI to American and Japanese university students (Matsumoto et al., 1993, 1994), and compared the means for each of the four relationships averaged across all 25 items. We expected that the Japanese would have significantly higher means than the Americans on ratings toward family, friends and colleagues, reflecting greater degrees of collectivism. To our surprise, however, there was no difference between the Japanese and Americans in relation to friends and colleagues, and the Japanese had significantly lower ratings than the Americans in relation to family. We also expected that the Japanese would have significantly lower ratings than Americans in relation to strangers, because collectivism fosters greater distinctions between ingroups and outgroups (Triandis et al., 1988). However, the Americans had significantly lower ratings. Overall, the Americans actually had a more collectivistic profile than the Japanese.

We (Matsumoto et al., 1994) also conducted post-hoc analyses of the American data to further investigate the diverse nature of culture in this sample. The sample included people of different ethnic (and supposedly cultural) groups. While all subjects were US-born 'Americans', the existence of subgroups made possible differences in psychological culture within the American sample. Subjects were classified into one of four ethnic groups—African, Asian, Hispanic/Latino and European Americans—and differences in their ICAI ratings were tested. The African, Asian and Hispanic/Latino American groups all had significantly higher mean ratings than did the European Americans in relation to family, close friends and overall totals. Among family, friends and colleagues, the Asian American group had the highest mean IC ratings (more collectivistic).

Thus, even within the American sample, there were cultural differences among subgroups on IC. These differences, along with the more global United States–Japanese differences reported in the same study, could only have been found when culture is defined as a sociopsychological variable along a meaningful dimension of variability such as IC, and measured on the individual level. These types of data question notions of culture that are rigid or fixed, applied across all members of any single cultural group as if the groups are homogeneous. Instead, we have found that IC is different for different groups, and for

subgroups within groups. This flexibility in psychological culture allows for changes that occur in overall group cultural patterns across time, to which anecdotal evidence has pointed in both the United States and Japan. This flexibility also allows for cultural differences across generations and subculture groups within a larger group.

Still, these data are not sufficient to inform us concerning individual-level variation regarding IC tendencies. Usual tests of group differences involving Analysis of Variance (ANOVA) test between-group variability, corrected for the number of groups in the comparison, relative to within-group variability, corrected for the number of subjects in the groups. These procedures, however, do not allow for a direct comparison of between- and within-group variability relative to the total variance in the data set (because mean squares are not additive; sum of squares are). If IC is defined as a psychological phenomenon, harbored by individuals to different degrees, then it should be possible to compare directly the degree of within- or between-group variance relative to total variance of the data and show that within-group variance is large compared to between-group differences. Moreover, because individuals are measured on multiple items assessing IC tendencies, we should also be able to document differences within individuals, and these differences should be large compared to differences between individuals within a group (applying the same type of logic). Should these types of findings be obtained, they should give us further insights into the question of the degree to which IC, as a meaningful sociopsychological dimension of cultural variability measured on the individual level, is indeed a flexible, dynamic entity.

We conducted Study 1 to examine these possibilities. This study was actually a reanalysis of the US and Japanese data reported earlier by Matsumoto et al. (1993, 1994), and examined individual-level variance in IC data in three ways: first, within each sample, as the proportion of the variance within individuals relative to the total variance in IC data comprised of within- and between-individual variance (sum of squares); second, between samples, as a proportion of the variance within groups relative to the total variance comprised of between- and within-group variance (sum of squares); and third, by establishing criteria to classify individuals as either collectivistic or individualistic, depending on the variation on their ICAI mean scores across the four social groups measured, the relative distribution of individuals with collectivistic vs individualistic tendencies within each of the samples, and a comparison of these distributions across samples. We hypothesized that each analysis would demonstrate that individual level

variation of IC would demonstrate that IC as a cultural construct is not a fixed, rigid entity, but rather a dynamic, flexible one.

Study I

Methods

Subjects and Data

Study 1 involved a reanalysis of the American and Japanese data reported earlier by Matsumoto et al. (1993, 1994). In those studies, the US sample included 285 university students (72 males, 207 females, 6 gender reports missing), while the Japanese sample included 120 university students (60 males, 60 females). All subjects in both countries participated in partial fulfillment of class requirements. They all completed the ICAI, described earlier.

Methods of Analysis

The first series of analyses examined the degree of individual variation within the United States and Japan, and each of the four social groups measured on the ICAI separately, using the following method. In this study, only the data for values ratings were used, as we deemed these the most appropriate and important for use in this study. The total variance in the data within each sample was partitioned into two components: variance within individuals and variance between individuals. Variance within individuals was calculated by summing the squared deviations of each item from each individual's mean across the 25 items, separately for each individual and then across individuals within each social group on the ICAI and country. Variance between individuals was calculated by summing the squared deviations of each individual's mean (i.e. scale score) to that individual's country mean on that social group across all individuals in that country sample. The proportion of the total variability within each country accounted for by within-subject variance was calculated by taking the ratio of the within-individual sum of squares variance estimate over the total variance within the country; likewise, a proportion of the total variability within each country accounted for by between-subject variability was calculated by taking the ratio of the between-individual sum of squares variance to the total variance within the country. These variance proportions were calculated separately for each of the four social groups as well as both countries.

In these first analyses, we also computed the sum of the squared

deviations of each item mean from the grand mean (across all items) as an estimate of variance accounted for by differences among the 25 items (across all individuals within the country), separately for each of the analyses described above. As variance among items (measures) is a component of within-individual variation; this variance estimate can be subtracted from the within-individual sum of squares, resulting in a residual variance estimate. We calculated the proportion of the total variance due to these two factors—between measures and residual variability—to gain further insights into the nature of within-individual and -country variability on IC. For each social group for each country, we also report alpha coefficients reported earlier (Matsumoto et al., 1993, 1994) to provide readers with an idea of the degree of internal consistency in measurement by summing across all 25 items to produce individual IC scores for each social group.

The second set of analyses examined the degree of within-group and between-group variation in IC scores. Instead of using mean squares, we used the between-group, within-group and total sum of squares figures as estimates of variance. While mean squares are not additive, sum of squares are, and the total variance in the comparison is partitioned into between- and within-group components. Therefore, we calculated a proportion of the total variance in the data involved in the comparison accounted for by between-group factors, and again by within-group factors, separately for each of the four social groups measured by the ICAI and tested in our previous study.

The third set of analyses involved our use of each individual's IC scores on the four social groups to classify each subject as having either a collectivistic or individualistic profile. Individuals having a mean score of 3.0 or greater in relation to family, close friends and colleagues, and a mean score of 3.0 or lower in relation to strangers, were classified as collectivistic; all other individuals were classified as individualistic. We adopted 3.0 as a cut-off criterion because it is the midpoint of the seven-point scale used in the ICAI. Also, we reckoned that collectivistic people would have relatively higher (i.e. more collectivistic) scores in relation to family, close friends and colleagues, and relatively lower scores in relation to strangers. Subjects with individualistic profiles, however, would have profiles that do not necessarily conform to this pattern of group differentiation. As with the analyses described above, such simple classification procedures would allow us to utilize individual variability of the four social group scores in adopting tentative classification criteria that would give us further glimpses into the nature of IC tendencies in the two countries that were ignored in our previous research.

Results

Analysis 1

The various proportions calculated, separately for each of the four social groups measured by the ICAI and for the United States and Japan, are reported in Table 1. As these data indicate, the proportion of variance in IC scores between individuals for both countries separately relative to the total variance within the countries was small—averages of 18.39 per cent and 17.61 per cent of the total variance for the American and Japanese data, respectively. Variability within individuals accounted for a far greater proportion of the total variance for both countries—averages of 81.61 per cent and 82.39 per cent for the United States and Japan, respectively. These data indicate clearly that there is far greater variability in IC scores within individuals in a single cultural group relative to between individuals. The comparability of relative proportions in the two countries is noteworthy, despite differences in sample sizes.

Table 1. Proportional variance analysis within and between individuals, separately for American and Japanese samples, Study 1.

Proportion of total variance ...	Family	Friends	Colleagues	Strangers
<i>American sample</i>				
Between individuals	20.61	15.00	17.57	20.37
Within individuals	79.39	85.00	82.43	79.63
Between items	36.49	40.09	30.45	21.80
Unaccounted	42.90	44.91	51.98	57.83
Reliability	.9133	.8752	.8768	.8817
<i>Japanese sample</i>				
Between individuals	23.10	14.26	17.52	15.55
Within individuals	76.90	85.74	82.48	84.45
Between items	26.02	38.53	34.14	27.62
Unaccounted	50.89	47.21	48.34	56.84
Reliability	.9081	.8620	.8850	.8477

Note: Variance estimates computed separately for each of the four social groups measured by the ICAI.

Further analyses of the two components of within individual variance suggest that although a considerable proportion of total variability was accountable by variance between measures (averages of 32.21% and 31.58% for the United States and Japan), an even greater proportion of total variability was unaccounted for (averages of 49.4% and 50.82% for the United States and Japan, respectively). These data further indicate that within-country individual variation cannot be accounted for by systematic variance due to measures or people; rather, they represent an estimate of random error in variance. These

findings further suggest the difficulties in capturing IC as cultural tendencies as a fixed or rigid entity.

Analysis 2

Sum of squares figures were taken from four separate one-way ANOVAs computed on the IC mean scores, using country (2) as the independent variable, separately for each of the four social groups. These analyses were the same as those reported previously in Matsumoto et al. (1993, 1994). The proportions of total variance due to between- and within-group differences are reported in Table 2. As these data clearly indicate, a vast majority of the total variance in each analysis was accounted for by variance within the groups across individuals (average = 95.33%). Even the two highly significant *F* ratios were associated with considerable within-group variation, despite the fact that these findings should normally lead to interpretations of group differences. These data clearly indicate that within group variance in IC scores is considerably larger than between group variance, despite normal testing procedures that lead to inferences of group differences.

Table 2. Proportional variance analysis within and between samples, American and Japanese university student sample comparison, Study 1.

Proportion of total variance ...	Family	Friends	Colleagues	Strangers
Between samples	9.74	0.47	0.05	8.43
Within samples	90.26	99.53	99.95	91.57
<i>F</i> ratio	43.16	1.87	0.21	36.85
Significance of <i>F</i>	<.0001	n.s.	n.s.	<.0001

Note: Variance estimates computed separately for each of the four social groups measured by the ICAI.

Analysis 3

This analysis examined the distribution of individuals classified as either collectivists or individualists according to the criteria specified above. Using these criteria, 53.2 per cent of the American sample were classified as collectivists, whereas 46.8 per cent were classified as individualists. By contrast, 29.2 per cent of the Japanese sample were classified as collectivists, whereas 70.8 per cent were classified as individualists. These differences were tested in a 2 × 2 contingency table, and were statistically significant: $\chi^2(1,402) = 19.559; p < .0001$. These findings further question the validity of fixed and rigid notions of culture as applicable to any single culture, or individual within a culture, and instead support the notion of culture, as a sociopsychological dimension of meaningful variability, as a dynamic and flexible entity.

Discussion

The results from Study 1 clearly indicate that culture, as defined along dimensions of sociopsychological variability, is not a fixed or rigid entity that is applicable to all individuals within a culture, nor to proposed differences between cultures. Rather, it is a fluid, flexible and dynamic entity that can and does acquire different meanings for different individuals. In Study 1, we observed that the variability within individuals (i.e. across multiple measurements within individuals) is substantially larger than variability between individuals; likewise, we observed that variability within groups is substantially larger than variability between groups. Finally, we also observed that, using simple classification criteria, there are individuals in both the United States and Japan who would be considered collectivistic as well as individualistic, and, in fact, the percentage of collectivists in the United States was significantly greater than that in Japan for this single sample of data.

Not only do these findings bring into question the applicability of our traditional notions of cultures as static entities applied across individuals within identifiable groups; they also question our traditional statistical procedures in testing cultural similarities and differences. Traditional ANOVA, for example, does indeed test the ratio of between-group variability to within-group variability. However, mean square formulas in ANOVA are corrected for the number of data points used in computing variance (i.e. degrees of freedom). Thus, they are 'averages' of the sums of squares estimates of variance. Instead, we directly used the sums of squares estimates, as these reflect exactly the degree of variance in the data set that is partitionable into identifiable and meaningful components that are additive. While these analyses are not the 'end-all' techniques for subsequent use in cross-cultural work, we do contend that these types of analyses supplement our traditional views of data in important ways that have exciting and challenging implications for cross-cultural theories.

Defining culture as a sociopsychological construct such as IC, and measuring IC-related tendencies individually, demonstrates empirically that culture is not a rigid or fixed entity. Culture is a sharing of psychological traits, attitudes, values and beliefs that are similar to some degree within a cultural group but different for each member of that group (Matsumoto, 1996). Uniformly applying cultural stereotypes to all members of any group opens the door to potentially large mistakes in inferences about underlying cultural traits and values because culture is different for each person. Just as there are Americans who harbor 'typical' American values, there are those whose cultural values

are much closer to the Japanese. Likewise, within the Japanese sample, there are individuals whose cultural profiles match the overall Japanese profile; however, there are individuals whose profiles more closely fit the American profile, and still others whose profiles resemble a stereotypic Japanese collectivism. Such findings also challenge our theoretical notions of culture, as they suggest that such notions that describe culture as a relatively homogeneous phenomenon for all members within a culture may not be very accurate.

Study 2

Overview

Another way to demonstrate the possible fluidity of culture as a psychological phenomenon would be to test samples of different ages within the supposedly same cultural group. While longitudinal data from the same individuals across time would be an even better approach to document the fluid and dynamic nature of culture within the same individuals, a cross-sectional approach would also provide data that speak to the same point. Thus, we were interested in the possibility that an older Japanese sample would present more collectivistically than the university sample did. If IC values have changed in Japan across time, then an older sample of Japanese respondents would not only be more collectivistic than university students, but their cultural profile would match our previous notions of Japanese collectivism. We were additionally interested in whether the analyses reported in Study 1 regarding individual-level variation would produce comparable results with this new sample of data. If found, the data would be further evidence for the fluid nature of culture.

In this study, we administered the ICAI to older, working adults in Japan, and compared their responses against our previous reported data from the university students (Matsumoto et al., 1994). We structured the analyses in this study into two parts. The first part was a replication of the three types of analyses conducted in Study 1 involving only the values data. The second part of the analyses focused on the testing of specific hypotheses we had concerning the nature of IC differences between the two samples. The item construction of the ICAI allowed us to test five hypotheses based on specific items on which we predicted cultural values to be different between the two groups:

- *Hypothesis 1:* University students are more collectivistic with their close friends than with their families; working adults, however, will be more collectivistic with their families;

- *Hypothesis 2:* University students give more collectivistic ratings toward strangers than working adults;
- *Hypothesis 3:* Working adults will be more collectivistic than university students in relation to their families on items related to sharing blame for failures, sacrificing goals, sacrificing possessions and compromising wishes;
- *Hypothesis 4:* Working adults will give significantly higher ratings than university students on the item to maintain status differences between oneself and one's colleagues;
- *Hypothesis 5:* Working adults will give significantly higher ratings than university students on the items to exhibit correct behaviors (proper manners and etiquette) and to follow norms and rules.

Method

Subjects

The subjects included university students ($n = 120$, 60 males and 60 females; mean age = 19 years, reported earlier in Matsumoto et al., 1994, whose data were used in Study 1) and working adults ($n = 58$, 30 males and 28 females; mean age = 39 years). The students were recruited from psychology courses at two universities in the Kansai area of Japan, and participated in partial fulfillment of class requirements. The working adults were recruited from businesses located in Tokyo and Osaka, and participated voluntarily.

Instruments and Procedures

All subjects completed the ICAI either individually or in small groups. Minor differences in administration procedures do not affect the reliability of the ICAI (Matsumoto et al., 1994). The same Japanese version that was used with the university subjects was used with the working adult sample. Subjects also completed a demographic information sheet.

Results

Individual Variance Analyses

The amount of within- and between-individual variance in the working adult sample was calculated, as in Analysis 1 of Study 1 (Table 3). In addition, variance due to between-measures differences, and to the residual, were also calculated. Proportions of all four variance estimates were taken relative to total variance within the sample. As can be seen in Table 3, variance between individuals accounted for only an average of 16.32 per cent of the total variance within the sample; the remaining 83.68 per cent of the variance was due to within-individual differences. Of that amount, an average of 36.12 per cent of the

Table 3. Proportional variance analysis within and between individuals, Japanese working adult samples, Study 2.

Proportion of total variance ...	Family	Friends	Colleagues	Strangers
Between individuals	13.32	13.14	16.09	22.74
Within individuals	86.68	86.86	83.91	77.26
Between items	45.75	44.60	33.95	20.18
Unaccounted	40.93	42.25	49.96	57.08
Reliability	.8720	.8661	.8706	.8954

Note: Variance estimates computed separately for each of the four social groups measured by the ICAI.

variance was due to differences between the measures; the remaining 47.56 per cent of the variance was due to unaccounted error.

The amount of within- and between-group variance for the two samples was also calculated, as in Analysis 2 of Study 1 (Table 4). Proportions of within- and between-group variance were calculated relative to the total variance in the data. As can be seen in Table 4, between-group variability is related to only a small proportion of the total variance in the data set, even when differences between the groups are large and highly significant.

Table 4. Proportional variance analysis within and between samples, Japanese working adults and university student sample comparison, Study 2.

Proportion of total variance ...	Family	Friends	Colleagues	Strangers
Between samples	9.25	0.00	0.47	12.59
Within samples	90.75	100.00	99.53	87.41
F ratio	17.12	0.00	0.79	23.90
Significance of F	<.0001	n.s.	n.s.	<.0001

Note: Variance estimates computed separately for each of the four social groups measured by the ICAI.

Finally, individuals were classified as either 'collectivists' or 'individualists', depending on the criteria as outlined in Analysis 3 in Study 1. A total of 67.9 per cent of the working adult sample were classified as collectivists, while the remaining 32.1 per cent were classified as individualists. The university student sample was distributed 29.2 per cent collectivists and 70.8 per cent individualist. These differences were statistically significant: $\chi^2(1,178) = 22.271; p < .0001$. The results from all three analyses were very comparable to those reported in Study 1, highlighting the considerable individual-level differences existent in the IC scores. These findings, therefore, support the notion of IC as a cultural construct as a fluid, dynamic and flexible entity.

Hypothesis Tests

A five-way Analysis of Variance (ANOVA) was computed, using group (2) and gender (2) as the between-subjects variables, and rating domain (2), social context (4) and item (25) as the within-subjects variables. The full-factorial ANOVA identifies all effects due to the factors, and eliminates their contribution to error. We included items as a factor because our hypotheses concerned specific items. Analytic comparisons were computed using the error term from the interaction in the overall analysis which justified the comparison.

The two-way interaction between group and social context was significant: $F(3, 474) = 24.90$; $p < .001$. Ratings for family and close friends were then compared separately for the two groups averaging across gender, item and rating domain. Working adults gave significantly higher ratings to family ($M = 3.96$; $SD = .65$) than to close friends ($M = 3.81$; $SD = .61$): $F(1, 474) = 6.56$; $p < .05$. University students, on the other hand, gave significantly higher ratings to close friends ($M = 3.77$; $SD = .69$) than to family ($M = 3.39$; $SD = .88$): $F(1, 474) = 33.19$; $p < .0001$. Thus, Hypothesis 1 was supported.

For Hypothesis 2, the ratings for strangers were compared between groups, averaging across gender, item and rating domain. Students gave significantly higher ratings to strangers than did the working adults (Table 5), supporting Hypothesis 2. Differences between the two groups were also tested for the other three social groups. The working adults had significantly higher ratings toward family than did the students; there were no differences, however, on close friends or colleagues.

Table 5. Comparison of working adults and university students on each of the four social groups SDs (in parentheses).

	Working adults	University students	F	p
Family	4.00 (.65)	3.40 (.88)	19.98	<.001
Close friends	3.79 (.61)	3.77 (.69)	.03	n.s.
Colleagues	3.57 (.65)	3.47 (.72)	.77	n.s.
Strangers	1.95 (.87)	2.59 (.80)	22.01	<.001

The four-way interaction between group, rating domain, social context and item was significant: $F(72, 11376) = 1.34$; $p < .05$. Hypothesis 3 was tested by comparing the two groups' ratings on the four items assessing the sharing of blame for failures, sacrificing goals, sacrificing possessions and compromising wishes, separately for both rating domains but averaged across gender. All eight comparisons were statistically significant, and in the predicted direction (Table 6), supporting Hypothesis 3.

Table 6. Hypothesis 3 means, SDs (in parentheses) and comparisons.

	Working adults	University students	F	p
<i>Values</i>				
Sharing blame	4.55 (1.40)	3.24 (1.73)	115.70	<.0001
Sacrificing goals	4.22 (1.20)	2.93 (1.75)	112.33	<.0001
Sacrificing possessions	4.88 (1.05)	3.45 (1.75)	136.22	<.0001
Compromising wishes	3.91 (1.39)	3.18 (1.64)	36.80	<.0001
<i>Behaviors</i>				
Sharing blame	4.04 (1.43)	2.98 (1.81)	73.70	<.0001
Sacrificing goals	4.19 (1.25)	2.95 (1.79)	103.60	<.0001
Sacrificing possessions	4.65 (1.13)	3.34 (1.80)	113.90	<.0001
Compromising wishes	3.88 (1.24)	2.86 (1.70)	70.27	<.0001

Hypothesis 4 was tested by comparing the two groups' ratings on the item assessing the maintenance of status differences between oneself and one's colleagues, separately for values and behaviors. Neither *F* was significant; thus, Hypothesis 4 was not supported.

Hypothesis 5 was tested by comparing the two groups' ratings on the items concerning the exhibition of correct behaviors and following norms, separately for both rating domains and the four social contexts. The working adults had significantly higher ratings in relation to

Table 7. Hypothesis 5 means, SDs (in parentheses) and comparisons.

	Working adults	University students	F	p
<i>Exhibit correct behaviors</i>				
Family				
Values	3.60 (1.45)	3.02 (1.76)	23.21	<.001
Behaviors	3.38 (1.37)	2.87 (1.56)	17.72	<.001
Close friends				
Values	3.91 (1.25)	3.75 (1.55)	1.81	n.s.
Behaviors	3.72 (1.39)	3.63 (1.51)	.66	n.s.
Colleagues				
Values	4.33 (1.08)	4.41 (1.23)	.44	n.s.
Behaviors	4.17 (1.05)	4.23 (1.39)	.25	n.s.
Strangers				
Values	3.50 (1.87)	4.43 (1.69)	58.73	<.001
Behaviors	3.40 (1.78)	4.34 (1.55)	59.08	<.001
<i>Following norms</i>				
Family				
Values	3.93 (1.44)	3.30 (1.70)	26.85	<.001
Behaviors	3.90 (1.28)	3.20 (1.67)	32.46	<.001
Close friends				
Values	3.70 (1.35)	3.96 (1.40)	4.87	<.05
Behaviors	3.97 (1.12)	4.08 (1.35)	.94	n.s.
Colleagues				
Values	3.62 (1.48)	3.84 (1.41)	3.29	n.s.
Behaviors	3.64 (1.31)	3.78 (1.42)	1.39	n.s.
Strangers				
Values	1.69 (1.56)	2.43 (1.84)	36.45	<.001
Behaviors	1.62 (1.40)	2.34 (1.89)	34.47	<.001

family; the students had significantly higher ratings in relation to strangers; with only one exception, there were no differences between the two groups in relation to close friends or colleagues (Table 7). Thus, Hypothesis 5 received support only for family relationships.

Discussion

The results generally supported the hypotheses. Students were more collectivistic with their close friends than with their families; working adults, however, were more collectivistic with their families, supporting Hypothesis 1. Students were more collectivistic toward strangers than working adults, supporting Hypothesis 2. Working adults were more collectivistic to their families on items related to sharing blame for failures, sacrificing goals, sacrificing possessions and compromising wishes, supporting Hypothesis 3. Working adults were more collectivistic on the items to exhibit correct behaviors (proper manners and etiquette) and to follow norms and rules, but only toward family; thus, Hypothesis 5 received partial support. Students were more collectivistic toward strangers on these items, which was not expected. Also, Hypothesis 4 received no support.

Changing patterns of Japanese IC-related cultural values have their biggest impact in the context of family, with working adults being much more collectivistic. Changes in family affluence and the availability of resources in recent years make collectivistic values less necessary for family survival. With ample financial stability, many Japanese families have provided their youngsters with resources that were unavailable during their parents' formative years. However, these resources may have been accepted without the concomitant social and familial obligations. Other studies (e.g. Hofstede, 1980; Triandis, 1994) have shown that affluence is correlated with individualism.

Major changes in communication and transportation also contribute to changing culture. While the world may not be physically smaller, it is functionally smaller and more accessible. Increased mobility and the ability to communicate loosens bonds around one's primary living areas, leading to less collectivism and more individualism. While not examined in this study, this notion would suggest that there are differences in IC values in urban as opposed to suburban and rural areas of Japan, with urban being more individualistic and rural being more collectivistic.

That students were more collectivistic toward strangers, while not predicted, is also congruent with increased individualism. People in individualistic cultures make less distinctions among others (Triandis

et al., 1988). A corollary to individualism is equality, because individualism fosters a sense of autonomy and uniqueness; thus, others are viewed on a more equal plane to oneself. People in collectivistic cultures, however, make greater distinctions between ingroups and outgroups. These distinctions are a necessary and important characteristic of collectivism. Thus, the more individualistic students will harbor more harmonious, collectivistic-based values toward strangers, while the older working adult group will harbor less of the same values. This also means that the differences between family and strangers is greater for working adults than it is for students, which is also congruent with this interpretation.

That there were no differences between working adults and students in relation to colleagues was surprising. We believe that the translation of the English word 'colleague' into the Japanese *nakama* contributed to the lack of differences on this item, because *nakama* carries much greater connotations of intimacy and closeness than does 'colleague'. We feel that this difference contributed to this non-finding on this particular item, and would not affect other items because they do not necessarily assess status differentiation.

One possible explanation of these age-related differences is that they are not cultural at all, but rather represent generational differences that occur at different periods of life. For example, the working adults may have had the same IC profiles as the students, if the data were obtained when they were the same age as the students. Alternatively, it may also be the case that the students will become more collectivistic as they get older, and that there will be no differences between their data 20 years from now. We argue against this interpretation, however, for three reasons. First, changes in IC-related values have been documented for years, and these changes indicate increasing individualism across time (Ishii-Kuntz, 1989). Those changes are consistent with the cultural changes observed in this study. Second, in another article, we compared the student data obtained in this study against student data from other countries, including the United States (Matsumoto et al., 1994). There, we found the Japanese students to be more individualistic than even the American student sample, a finding which is highly improbable if that were a trend observed generally in Japan. Third, anecdotal evidence and informal observations about today's Japanese youth would not be an issue should their values be part of what would be considered 'normal' development.

In addition to mean differences on individual items or groups, the individual-level variance analyses produced very comparable findings, as reported in Study 1. These findings lend further support for

the notion that culture is a fluid and dynamic entity, not a fixed or rigid one. The classification analyses, in particular, provided data to suggest that traditional or stereotypic notions of collectivistic Japanese culture may be more appropriately applied to the older, working adult sample. But, such notions may be dated when younger, university student samples are considered and engaged to provide data in research. Moreover, even within the working adult sample, the proportion of individuals classified as individualistic was not small (about 30%). Such data further challenge notions of culture as applicable to all members of a culture, regardless of the applicability to a vast majority (i.e. 70%).

Conclusion

In this article, we have suggested that culture, defined along a socio-psychological dimension known as individualism vs collectivism, is not a static, fixed or rigid entity. Instead, it is fluid, flexible and dynamic, shared by members of a culture but different for each individual. We described social changes in culture across time that suggest that culture is dynamically changing. We described data reported elsewhere (Matsumoto et al., 1993, 1994) that challenge our stereotypic notions of IC in the American and Japanese cultures. We discussed data on subgroup cultural differences within our previous American sample that pointed to the relative nature of psychological culture within larger frameworks. In Study 1, we presented new, individual-level analyses of previously reported data to highlight the differences in culture as a psychological phenomenon across individuals, and the inherent difficulties in pigeon-holing individuals into the norms of that group (and the inherent difficulties of the associated assumption of homogeneity of people in that process). In Study 2, we re-created the new individual-level variance analyses of Study 1, and reported new group differences data from an older sample of Japanese individuals that were considerably different from their counterparts, further highlighting the dynamic nature of culture within an ethnically and racially homogeneous group. Finally, we reported individual cultural profiles from that older Japanese sample to investigate individual sample variations that tend to match our previous stereotypes of Japanese collectivism, which is not true of younger Japanese individuals today.

Collectively, this evidence has important ramifications for both theoretical and empirical work, related not only to the American and Japanese cultures, but to others as well. Empirically, these data make it clear that one cannot assume homogeneity of individual subjects

within a cultural sample. Clearly, the individuals that comprise one's sample in research may or may not operationalize the cultural differences intended in the first place. The evidence presented here also argues that the intended cultural differences, which are often based in stereotype, anecdote or impression, may be dated. Given that university students comprise subject pools for much research, these points should raise important caveats to future cross-cultural studies that blindly access these pools for cross-cultural comparison with little consideration of individual and subgroup variation in cultural values. There is great room for such variation when culture is defined along dimensions such as IC. Fortunately, there is also great room for meeting this challenge by the availability of new methods that allow us to measure such constructs on the level of individuals, which should serve as important methodological checks in our research.

On a theoretical level, the evidence challenges our conceptual understanding of culture, and of how we can incorporate individual-level variation within group-level influences. While we have chosen one facet of culture—IC—to demonstrate this challenge, we feel that similar challenges await us on other facets of culture as well. It is almost ironic that psychology, as a discipline concerned with accounting for individual variation, needs to remind itself of the need to incorporate such variation in conceptual models of culture. Yet, our almost exclusive focus on group differences in previous research, our own included, has tended to gloss over the overwhelming evidence of within-group variability that also exists.

Appendix: Listing of the Items Included in the ICAI

1. Comply with direct requests from them.
2. Maintain self-control toward them.
3. Maintain status differences between you and them.
4. Share credit for their accomplishments.
5. Share blame for their failures.
6. Respect and honor their traditions and customs.
7. Be loyal to them.
8. Sacrifice your goals for them.
9. Sacrifice your possessions for them.
10. Respect them.
11. Compromise your wishes to act in union with them.
12. Maintain harmonious relationships with them.
13. Nurture or help them.
14. Maintain a stable environment (e.g. maintain the status quo) with them.
15. Accept your position or role with them.
16. Follow advice for major decisions from them.

17. Exhibit 'proper' manners and etiquette, regardless of how you really feel, toward them.
18. Exhibit 'correct' emotions, regardless of how you really feel, toward them.
19. Be like or similar to them.
20. Accept awards, benefits or recognition based only on age or positions rather than merit from them.
21. Cooperate with them.
22. Communicate verbally with them.
23. 'Save face' for them.
24. Follow norms established by them.
25. Identify yourself as a member of them.

Note: When rated as values, ratings are made using a seven-point scale labeled Not at All Important (0) to Very Important (6). When rated as behaviors, ratings are made using a seven-point scale labeled Never Do It (0) to Do It All the Time (6).

Acknowledgements

The research reported in this article was supported in part by a grant from the California State University Research and Professional Development Committee, and a Faculty Affirmative Action Award from San Francisco State University, all to the first author. We gratefully acknowledge the aid of Michiko Tomioka in the collection of the Japanese data reported in this article. We also give thanks to Carinda Wilson Cohn, Nathan Yrizarry, Cenita Kupperbusch, Galin Luk, Erin Milligan and Sherry Loewinger of our general research program.

References

- Bellah, R.N., Madsen, R., Sullivan, W.M., Swidler, A., & Tipton, S.M. (1985). *Habits of the heart: Individualism and commitment in American life*. New York: Harper & Row.
- Benedict, R. (1946). *The chrysanthemum and the sword: Patterns of Japanese culture*. Boston, MA: Houghton Mifflin.
- DeVos, G. (1973). *Socialization for achievement: Essays on the cultural psychology of the Japanese*. Berkeley: University of California Press.
- Dore, R. (1958). *City life in Japan: A study of a Tokyo ward*. Berkeley: University of California Press.
- Georgas, J. (1989). Changing family values in Greece: From collectivist to individualist. *Journal of Cross-Cultural Psychology*, 20, 80-91.
- Georgas, J. (1991). Intrafamily acculturation of values in Greece. *Journal of Cross-Cultural Psychology*, 22, 445-457.
- Gudykunst, W.B., Gao, G., Schmidt, K.L., Nishida, T., Bond, M.H., Leung, K., Wang, G., & Barraclough, R.A. (1992). The influence of individualism-collectivism, self-monitoring, and predicted-outcome value communication in ingroup and outgroup relationships. *Journal of Cross-Cultural Psychology*, 23, 196-213.

- Gudykunst, W.B., & Ting-Toomey, S. (1988). Culture and affective communication [Special issue: Communication and affect]. *American Behavioral Scientist*, 31, 384–400.
- Hall, E.T. (1966). *The hidden dimension*. New York: Doubleday.
- Hamilton, V.L., Blumenfeld, P.C., Akoh, H., & Miura, K. (1991). Group and gender in Japanese and American elementary classrooms. *Journal of Cross-Cultural Psychology*, 22, 317–346.
- Hearn, K. (1894). *Glimpses of unfamiliar Japan*. Boston, MA: Houghton Mifflin.
- Hendry, J. (1987). *Understanding Japanese society*. London: Croom Helm.
- Hofstede, G. (1980). *Culture's consequences*. Beverly Hills, CA: Sage.
- Hui, C. H. (1988). Measurement of individualism–collectivism. *Journal of Research in Personality*, 22, 17–36.
- Hui, C.H., & Triandis, H.C. (1986). Individualism–collectivism: A study of cross-cultural researchers. *Journal of Cross-Cultural Psychology*, 17, 225–248.
- Ishii-Kuntz, M. (1989). Collectivism or individualism? Changing patterns of Japanese attitudes. *Social Science Research*, 73, 174–179.
- Kluckhohn, F., & Strodtbeck, F. (1961). *Variations in value orientations*. Evanston, IL: Row, Peterson.
- Lee, H.O., & Boster, F.J. (1992). Collectivism–individualism in perceptions of speech rate: A cross-cultural comparison. *Journal of Cross-Cultural Psychology*, 23, 377–388.
- Leung, K. (1988). Some determinants of conflict avoidance. *Journal of Cross-Cultural Psychology*, 19, 125–136.
- Markus, H.R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224–253.
- Matsumoto, D. (1989). Cultural influences on the perception of emotion. *Journal of Cross-Cultural Psychology*, 20, 92–105.
- Matsumoto, D. (1991). Cultural influences on facial expressions of emotion. *Southern Communication Journal*, 56, 128–137.
- Matsumoto, D. (1996). *Culture and psychology*. Pacific Grove, CA: Brooks Cole.
- Matsumoto, D. (in press). *Unmasking Japan: Myths and realities about the emotions of the Japanese*. Stanford, CA: Stanford University Press.
- Matsumoto, D., Brown, B., Preston, K., & Weissman, M. (1993, August). *The need for better measures of individualism–collectivism on the individual level*. Paper presented at a Symposium on 'Measuring individualism–collectivism on the level of the individual' at the Annual Convention of the American Psychological Association, Toronto, Canada.
- Matsumoto, D., Weissman, M., Preston, K., Brown, B., & Kupperbusch, C. (1994). *Context-specific measurement of individualism–collectivism*. Manuscript submitted for publication.
- Mead, M. (1967). *Cooperation and competition among primitive people*. Boston, MA: Boston.
- Pelto, P.J. (1968, April). The differences between 'tight' and 'loose' societies. *Trans-action*, pp. 37–40.
- Preston, K.J., Brown, B.B., Weissman, M.D., & Matsumoto, D. (1993, April). *Measuring culture: Capturing the complexity of individualism–collectivism (IC)*. Paper presented at the Western Psychological Association Annual Convention, Phoenix, AZ.

- Reischauer, E.O. (1988). *The Japanese today: Change and continuity*. Cambridge, MA: Harvard University Press.
- Schwartz, S. (1990). Individualism–collectivism: Critique and proposed refinements. *Journal of Cross-Cultural Psychology*, 21, 139–157.
- Schwartz, S., & Bilsky, W. (1987). Toward a universal psychological structure of human values. *Journal of Personality and Social Psychology*, 53, 550–562.
- Triandis, H.C. (1972). *The analysis of subjective culture*. New York: Wiley.
- Triandis, H.C. (1994). *Culture and social behavior*. New York: McGraw-Hill.
- Triandis, H.C., Bontempo, R., Villareal, M.J., Asai, M., & Lucca, N. (1988). Individualism and collectivism: Cross-cultural perspectives on self–ingroup relationships. *Journal of Personality and Social Psychology*, 54, 323–338.
- Triandis, H.C., Leung, K., Villareal, M.J., & Clark, F. (1985). Allocentric versus idiocentric tendencies: Convergent and discriminate validation. *Journal of Research in Personality*, 19, 395–415.
- Triandis, H.C., McCusker, C., & Hui, C.H. (1990). Multimethod probes of individualism and collectivism. *Journal of Personality and Social Psychology*, 59, 1006–1020.
- Wallbott, H.G., & Scherer, K.R. (1988). Emotion and economic development: Data and speculations concerning the relationship between emotional experience and socio-economic factors. *European Journal of Social Psychology*, 18, 267–273.
- Weissman, M., Brown, B., Preston, K., Tafe, B., & Matsumoto, D. (1992, April). *The California Cultural Assessment Inventory (CCAI): Developing a measure of individualism–collectivism*. Paper presented at the Western Psychological Association Annual Conference, Portland, OR.

Biographies

DAVID MATSUMOTO is currently Associate Professor of Psychology at San Francisco State University and is also director of the Intercultural and Emotion Research Laboratory. He has studied emotion and culture for 15 years. ADDRESS: Dr David Matsumoto, Department of Psychology, San Francisco State University, 1600 Holloway Avenue, San Francisco, CA, 94132 USA. [email: dm@sfsu.edu]

TSUTOMU KUDOH is currently Professor of Psychology at Meisei University, Tokyo, Japan. He has studied emotion and non-verbal behavior for over two decades.

SACHIKO TAKEUCHI is currently Staff Researcher at the Intercultural and Emotion Research Laboratory, Department of Psychology, San Francisco State University. Her research interests are in culture and communication.