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Measuring culture: The development of a multidimensional culture scale

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by

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Dedication

To my parents, Ameed and Gloria, and my brothers, Wael and Walid, who offered me

unconditional love and support throughout the course of this journey.

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I would like to thank my major professor and advisor, Dr. Paul Spector for his careful

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ABSTRACT

Fundamental to the debate of culture and its impact is the identification of the dimensions that comprise it. The impact of culture as an explanatory variable can be found in various social, scientific, and economic arenas, such as social perception, economic development, and the organization of industries and companies. By identifying and measuring these dimensions, researchers can then organize cultures empirically and develop complex descriptions of various cultures. The study aimed to test the structure of the dimensions proposed by Ho and Chiu (1994) by means of scale development. Test-item writers involved psychology graduate students of various nationalities with the purpose of addressing reliability issues of previous measures by virtue of increased content breadth. The study also aimed to investigate the notion that cultural tendencies vary by dimension across geographical regions. Phase-I factor analysis results indicated that a 5-factor solution (*responsibility, affiliation, social welfare, religion,* and *achievement*) should be retained. Phase-II involved administering the scale to an international and American student sample that formed the basis for group comparisons. The results for the group comparisons were illuminating, providing evidence for the conceptualization of individualism and collectivism as worldviews and that the groups varied in their worldview depending on the pertinent dimension being measured. Implications for organizational research are discussed within the framework of linking individualism and

collectivism to workplace variables. This study hopes to spur further empirical research in the area to catch up with the progressing theoretical development through expanded cultural dimensions, theory refinement, determining the process(es) by which cultural factors are linked to work behaviors, and uncover the various areas of applicability and research.

Introduction

Overview

Hofstede's seminal work on the conceptualization of culture into meaningful dimensions (1980, 1984) has led to a burgeoning in the study of culture and has been gaining a larger role among psychologists interested in cross-cultural differences and similarities. The rise in the popularity of cross-cultural psychology underlies the importance of defining and conceptualizing culture in a language that is meaningful and into dimensions that can be measured properly.

Culture in its broadest sense is comprised of the shared values, beliefs, norms, customs, and behaviors that are held by members of a society and is transmitted from generation to generation through learning. As such, the definition of culture is vague and does not provide a clear, working construct for researchers who seek to discern how cultures and societies differ and how to organize them. The impact of culture as an explanatory variable can be found in various social, scientific, and economic arenas, such as social perception, economic development, and the organization of industries and companies (Triandis, 1994). Fundamental to the debate of culture and its impact is the identification of the dimensions that comprise it. By identifying and measuring these dimensions, researchers can then organize cultures empirically and develop complex descriptions of various cultures (Triandis, Bontempo, Betancourt, Bond, Leung, Brenes, Georgas, Hui, Marin, Setiadi, Sinha, Verma, Spangenberg, Touzard, & De Montmollin, 1986).

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Arguably the most researched and studied cultural dimension in cross-cultural psychology is that of individualism/collectivism (I/C). Beginning in the 1980s, I/C was identified as one of the major themes in cross-cultural social and organizational psychology (Triandis, Chen, Chan, 1998). Hofstede (1980) first used the term individualism to refer to societies that placed importance on the individual, the individual's interests, and the individual's achievement, which prevail over those of the group's. In contrast, collectivism describes societies that place emphasis and importance on the group and the group's interests and achievements. The US and Europe have been systematically labeled and assumed to be the torch bearers of individualism, whereas East Asian countries – China being the quintessential example – to be especially low (high) on individualism (collectivism), although systematic tests for this assumption are few and are based on early research by Hofstede (Oyserman, Coon, and Kemmelmeier, 2002).

This early organization of cultures and countries spurred the development of many hypotheses that involved the relationship between culture and various social behavior and phenomena (Matsumoto, Weissman, Preston, Brown, & Kupperbusch, 1997). Hofstede's I/C constructs provided fuel to the cultural psychology field by presenting a structure and general theoretical framework within which the concept of culture could be properly operationalized. Further, I/C demonstrated that it is a much more coherent construct that is also an empirically testable dimension of cultural variation (Bond, 1994).

Whereas Hofstede considers I/C to be a single dimension, others like Triandis consider it multidimensional. Triandis' (1995) review of culture focuses on the specific manifestations of individualism and collectivism; themselves defined as cultural

syndromes, and highlighting their particular characteristics. A cultural syndrome is in essence a collection of beliefs, attitudes, norms, roles, and values that are related through a common theme. The themes serve the purpose of organizing these characteristics, and are influenced by their geographical location. As such, one would find variations in the manifestation of the syndromes with the variation in geographical location. Triandis speculated that individualism and collectivism, as cultural syndromes, had four different, universal themes, which Triandis and other researchers later on termed dimensions. Accordingly, societies could be organized and distinguished based on these dimensions.

Measuring Individualism and Collectivism

Hofstede's Individualism/Collectivism

According to Hofstede (1994) individualism is defined as the opposite of collectivism – that they formed a single continuum. That is to say individual's can either be high on individualism or collectivism, but not both. More specifically, individualism in a particular society is defined by the ties between individuals in that society. A person is expected primarily to look after himself or herself and his or her immediate family. Hofstede (1997) describes healthy individualists as those who are not dependent on a group, who think of themselves in terms of "I". Each individual's personal identity is therefore defined in terms of individual characteristics. Individualist cultures value speaking one's mind, where expressing truthfully how one feels is highly regarded, even if it leads to confrontation. In essence, it is an individual's focus on rights over duties, one's concern for oneself and immediate family, one's focus on autonomy and self-fulfillment, and the basing of one's identity on one's personal accomplishments.

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Collectivism in contrast defines a society in which people are basically integrated into strong, cohesive in-groups, which protect them in exchange for unquestioning loyalty. Individuals learn to think of themselves in terms of "we", such that their personal identities derive security and protection from belonging to the "we" group. Collectivist cultures value the maintenance of harmony through a social contact that extends into various aspects of one's life such as school and the workplace.

Triandis' Individualism/Collectivism

In terms of organizing cultures into either individualism or collectivism, Triandis (1995) introduces two attributes that further differentiate cultures according to individualism and collectivism which he calls horizontal and vertical. Horizontal refers to a sense of cohesion among members, that the members are equal within their group, and have a feeling of oneness with other members of the group. The horizontal dimension emphasizes that people are similar in status. Vertical, on the other hand, refers to sense of service to the group, where the members sacrifice for the benefit of the group. The ranking of members in the group has precedence, and there is an acceptance of inequality and of privileges of those who rank higher. The four dimensions therefore are: (a) horizontal individualism where the individual is considered of equal status as others, but maintains an autonomous sense of the self, (b) horizontal collectivism where the individual is also considered of equal status, but is also interdependent – the self merges with the members of the in-group and individuals see themselves as being the same as others, (c) vertical individualism considers an autonomous self coupled with an expected inequality between people, where individuals see each other as different, and (d) vertical collectivism, where the self is defined in terms of the in-group while acknowledging that

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some members have more status than others, thus group members are different from each other.

Triandis (1995) also identified four defining attributes or dimensions that make up individualism and collectivism: Definition of the self, structure of goals, emphasis on norms versus attitudes, and emphasis on relatedness versus rationality.

Definition of the self: The defining aspect that differentiates individualists from collectivists is how broad or narrow the definition of the self is. While individualists view the self as independent and autonomous, collectivists regard the self as being interdependent with other members of the group. Such belief also entails the sharing of resources, much like what happens in families, whereas individualists hold that the sharing of resources is based on individual decisions (Markus & Kitayama, 1991; Reykowski, 1994). Further, individualists are described as being more concerned with personal success while collectivists focus on the success of their group. Linked to this concept of success is the focus of individualists on personality, ability, and attitude versus collectivists' focus on relationships, roles, and norms. Such definitions of the self are also reflected in other aspects of the individual's daily life, such as the degree of sharing between members of a society and the extent that members conforming to the norms of the society.

Structure of goals: The second dimension pertains to differences in how societies relate to personal and societal/communal goals. More specifically, the dimension concerns the extent to which personal goals align with communal goals. Individualists place priority on personal goals, while communal goals supersede personal goals in collectivist cultures (Schwartz, 1994). In other words, for collectivists, personal goals

should be highly compatible with the group's goals, whereas for individualists, personal goals do not necessarily have to be compatible with the group's goals (Triandis, 1988, 1990). When personal goals are incompatible with group goals, collectivists tend to give priority to the group's goal while individualists' personal goals supersede the group's goals.

Emphasis on norms versus attitudes: Cognitions guide much of social and personal behavior, and constitute the third dimension outlined by Triandis. Specifically, individualistic cultures hold cognitions that focus primarily on attitudes, personal needs, contracts, and perceived rights. In other words, the focus of thought is on the individual. Social behavior that is guided primarily by a focus on norms, duties, and obligations, in addition to attitudes and personal needs, is characteristic of collectivistic cultures (Davidson, Jaccard, Triandis, Morales, & Diaz-Guerrero, 1976). The motivation to pay close attention to the norms of the in-group over personal needs for collectivists is that their well-being depends on fitting in and having good relationships with the in-group, while for individualists it depends on satisfaction with the self, and the emotions associated with self-satisfaction (Suh, Diener, Oishi, & Triandis, 1998). Finally, collectivists tend to be more formal and to depend on rules for social behavior to a greater extent than do individualists and see less of a link between attitudes and behavior than do individualists (Kashima, Siegel, Tanaka, & Kashima, 1992).

Emphasis on relatedness versus rationality: Finally, the fourth dimension concerns the degree of emphasis on relationships. Kim, Triandis, Kâğitçibaşi, Choi, and Yoon (1994) found that individualistic cultures tend to rationally analyze the pros and cons of maintaining a relationship, where rationality refers to the weighing of the costs

and benefits of relationships (Kim, 1994). On the other hand, collectivistic cultures emphasize unconditional relatedness, underscoring relationships and giving priority to the needs of others despite the possibility that they are disadvantageous.

Triandis (1995) further defined individualism and collectivism at the individual level as idiocentric and allocentric. Idiocentric refers to individuals who seek personal gains and interests, while allocentric defines individuals who see their interests and goals as aligned with the group's interests and goals.

Schwartz's Individualism/Collectivism

Schwartz (1990) defined individualistic societies as those that focused on centralizing the individual and peripheralizing the social group. Individuals belong to narrow groups, with any obligations and expectations based on that membership focused on achievement of personal status. The emphasis is more on the achievement of one's personal goals and uniqueness. Collectivists according to Schwartz (1990) are characterized by obligations to the group, ascribed statuses, and strong obligations and expectations based on those statuses. The main focus or emphasis is on the social units within which individuals belong to that emphasize a common fate, goals, and values.

At the individual level, Schwartz (1996) proposed a structure of values consisting of 10 types: power, achievement, hedonism, stimulation, self-direction, universalism, benevolence, tradition, conformity, and security. In addition, Schwartz's value structure had two features: circularity and value priorities. The circular feature involves the compatibility of pursuing adjacent values and the incompatibility of pursuing diametrically opposite values, which generates conflict within the individual. Schwartz also emphasizes value priorities as meaningful predictors of social behavior, whereby

individuals' ranking of the relative importance of a value over the other values allow for robust hypotheses generation.

Hui's INDividualism-COLlectivism (INDCOL)

Hui (1998) developed the INDCOL scale based on the assumption that people's values, specifically people's collectivistic values, were target-specific. The implication is that people's behaviors would vary depending on the target of interaction in such a way that the closer the target is to the person, the more collectivistic the behaviors shown are. Hui (1988) originally specified six relevant target groups (corresponding to six subscales in the INDCOL scale): spouse, parents, kin, neighbors, friends, and colleagues, and these subscales would theoretically distinguish between collectivist tendencies. Research into the factor structure of the INDCOL (Hui and Yee, 1994) could not support or confirm the six factor solution, but a five factor solution emerged that comprised of the following:

Colleagues and friends/supportive exchange (CF): Items loading on this factor referred to issues of intimacy, sharing, and interdependence among work colleagues and friends. Items also describe the (un)willingness of individuals to have fun or seek advice from friends.

Parents/consultation and sharing (PA): Items loading on this factor tapped into a person's readiness to discuss and consult with parents on personal issues, as well as the willingness with which one shares ideas, knowledge, and material resources with parents.

Kin and neighbors/susceptibility to influence (KN): Items loading on this factor referred to the influence exerted by relatives, kin and neighbors that influence an individual's attitudes, and is opposed by a "none of your business" attitude.

Parents and spouse/distinctiveness of personal identity (PS): Items loading on this factor looked at the degree of differentiation between the individual and parents, with an emphasis on communal relationships and shared honors between the two.

Neighbor/social isolation (NE): Items loading on this factor describe the casual relationships (or lack thereof) an individual has with neighbors.

Matsumoto et al.'s (1997) ICIAI

Matsumoto et al. (1997) developed the Individualism-Collectivism Interpersonal Assessment Inventory (ICIAI) based on defining I-C in terms of values that applied to specific relationships and interpersonal interactions. Similar in many ways to Hui's INDCOL, the ICIAI differs in that the items are not specific to the collective or target rated, but instead could be used across social relationships. The four social groups identified by Matsumoto et. al. were: family, close friends, colleagues, and strangers. The scale includes 25 items that are rated twice by respondents, once as values on a 7-pt. Likert scale, and another time as behaviors in terms of the frequency with which someone engages in each of the behaviors.

Finally, Oyserman et al's (2000) review of the last 20 years of research in individualism and collectivism identified a common theme for each: Individualism is mostly concerned with valuing personal independence, while collectivism focused on a sense of obligation and duty to one's in-group. Also identified were the common dimensions that were assessed in individualism-collectivism scales that each factor encompassed. For individualism, the seven dimensions assessed were: independence, goals, competition, uniqueness, privacy, self-knowledge, and direct communication. The

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eight dimensions identified for collectivism were: relatedness, belonging, duty, harmony, advice, context, hierarchy, and group.

Methodological Concerns

The organizing concept of individualism/collectivism in cross-cultural psychology has become a universal one, with individualism and collectivism describing a bipolar construct. The initial idea was that cultures and societies could (and were) categorized into one of those poles (Ho & Chiu, 1994) and reference thus far to I/C cultures gives the impression that members of a particular society are uniformly individualist or collectivist. Like many other psychological constructs, individualism and collectivism have been defined and conceptualized in terms of dichotomies. While this method provides an expedient form of characterizing societies and cultures, it is also an oversimplified way of describing. There is a tendency to explain complex social realities in simplified terms, glossing over the nuances of cultures in exchange for stereotypical explanations. This can result in pigeonholing of cultures and societies into broad yet simplified categories, and the subtle differences and fine distinctions that make up societies are missed. The problem with this conceptualization is that it has led to an oversimplification of the constructs, and most importantly, of the culture or society being described. The focus shifts towards simplified fixed impressions of groups rather than a representation of their complexities (Sinha & Tripathi, 1994).

Recent trends in cross-cultural research have focused on exploring the complexity and multidimensionality of I/C. The construct of I/C is seen as two distinct constructs, where "one is not reducible simply to the antithesis of the other" (Ho & Chiu, 1994, p. 138). It is argued that individualism and collectivism should be conceptualized as two

multidimensional constructs, and recent discussion in the literature has noted that individualism and collectivism are likely to be multidimensional rather than polar opposites, with individualist and collectivist tendencies both coexisting within individuals (Ayyash-Abdo, 2001).

It seems clear that within a given culture both individualist and collectivist beliefs are likely to be held and rejected. Schwartz (1990) found that individualist or collectivist beliefs within a culture do not necessarily make up a coherent constellation. That is, within either the individualist or collectivist dimension, some of the components can be affirmed while the rest are negated.

Although they've been viewed as opposites, the literature points to a more accurate view of the two concepts as being worldviews that differ in the issues they make salient. Past literature has moved in the direction of a possible synthesis of individualist and collectivist dimensions. Within one culture, both orientations can be valued to varying degrees. That is, one orientation may dominate or be more characteristic of a group, but not to the point of negating the weaker of the two. Furthermore, one should underscore how misleading it is at the individual level of analysis to classify people indiscriminately as individualist or collectivist, and at the cultural level to characterize a society globally as either individualist or collectivist. Rather, it seems more appropriate to describe a culture as predominantly individualist or collectivist while specifying further on how the attributes or dimensions apply to this culture (Ho & Chiu, 1994).

The debate on the conceptualization of individualism and collectivism is also fueled by the extensive research on individualism and collectivism involving a comparison of US and Asian (predominantly Chinese) samples and the development of

scales that are drawn from these societies. This approach does not represent the fullness of the individualism and collectivism construct with respect to facets of it, because it is specific to two cultures that are posited on opposite ends. Other cultures would differ also in a ranking of these facets, and which are more important for that particular society. According to Ayyash-Abdo (2001), since both dimensions are theorized to exist in one society, it seems more appropriate to create an I/C scale that encompasses multiple facets, upon which cultures or societies can be compared.

From a methodological perspective, it appears that it is necessary to consider the multidimensionality of the I/C construct in cross-cultural research, where the focus should be on recognizing and identifying the components of this construct and on which construct/facets do the differences exist (Ho & Chiu, 1994). How the two orientations interact and the conditions needed for them to come out would provide great insight into the culture itself. What seems to be taking place is the coexistence of distinct elements in one society. The trend appears to be that societies/individuals end up compartmentalizing different facets of their culture, with different sets of thoughts and beliefs coexisting alongside one another (Sinha & Tripathi, 1994).

Beyond characterizing cultures as being relatively individualistic or collectivistic, the measurement of individualism and collectivism is valuable at the individual level as well. Estimates of the proportion of the population that are characterized as individualistic or collectivistic can be made based on individual measurement (Matsumoto et. al., 1997). Furthermore, empirical support can be generated in reference to different samples, negating the need for assuming that the group composition is only one way or the other.

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Probably the strongest indication that individualism and collectivism do not form

a single, bipolar dimension is the lack of empirical support indicating that they are

equally and inversely related to one another. Rather, individualism and collectivism can

be multidimensional and non-polar. Ho and Chiu (1994) found that both individualist and

collectivist attributes can be displayed on separate dimensions, contradicting the

contention of polarity and providing support for the existence of both attributes.

With properly defining individualism and collectivism comes the necessity of

measuring them. Hofsetede's (1994) measure is designed to assess individualism and

collectivism at the cultural level, while Scwhartz's Value Scale (1994) measures cultural

values at the individual level. The main limitation with any cultural scale has been its

reliability and consequent validity – where the measures have failed to achieve acceptable

levels (Singelis, Triandis, Bhawuk, Gelfand, 1995). Hofstede's VSM 94 yielded a .52

mean coefficient alpha (Spector, Cooper, Sparks, Bernin, Büssing, Dewe, Lu, Miller, de

Moraes, O'Driscoll, Pagon, Pitariu, Poelmans, Radhakrishnan, Russinova, Salamatov,

Salgado, Sanchez, Shima, Siu, Stora, Teichmann, Theorell, Vlerick, Westman,

Widerszal-Bazyl, Wong, & Yu, 2001) while Hui and Yee (1994) report Cronbach alphas

for the INDCOL scale ranging from .38 to .73 for 5 subscales. Oyserman, Coon, and

Kemmelmeier (2002) provided evidence for the importance of having reliable measures

of individualism and collectivism in their meta analysis, where it was shown that effect

sizes and differences between countries change dramatically when comparing reliable

and unreliable measures.

What has plagued the measurement of the I/C construct is the broadness of the

construct on the one hand such that simple, culture-level measures cannot cover very well

thus reducing their reliability; while on the other hand specific measures focusing on one aspect of culture are too constricting thus reducing their content validity. Several authors, particularly Cronbach (1990) and Triandis (2001) have discussed the bandwidth vs. fidelity quandary concluding that more valid and profitable information can be had when most or all aspects of a construct are roughly measured rather than focusing on and accurately measuring one or two aspects of a construct. In other words, a measure that covers the whole theoretical bandwidth of a construct will fare better, particularly with a large sample.

As mentioned earlier, individualism and collectivism are no longer thought of as one construct, occupying opposite ends of the spectrum. Instead, individualism and collectivism can be construed as two distinct, multidimensional worldviews composed of several components, and it's not contradictory to hold both views at the same time. Triandis and Gelfand (1998) argued that there are different kinds of individualism and collectivism, and that further theoretical and empirical support for additional attributes is needed.

While individualism and collectivism are helpful in describing the different ways in which cultures differ, as it stands, they are also too broadly defined and are too often used to explain almost any cultural or cross cultural difference (Oyserman, Kemmerlmeier, & Coon, 2002). Perhaps it is more appropriate to think of them as general cultural schemas or abstracted ways of making meaning of the world. To that end, there exists a need to develop a measure that would reflect this shift in conceptualization.

Dimensions of Individualism-Collectivism

A characterization of a particular culture can be found in the expressions, proverbs, and sayings that summarize various experiences, and are passed from one generation to the next in the form of wisdoms. The popular sayings then come to form the general cultural beliefs that would guide the behaviors of the members of the society. Ho and Chiu (1994) content-analyzed popular Chinese sayings to determine the degree to which they affirmed or negated the basic ideas of individualism and collectivism. The procedure entailed training judges in analyzing over 2,000 popular sayings and then compiling and sorting them under either individualism or collectivism. More specifically, sayings that expressed prescriptive or proscriptive beliefs were selected. The idea is that such beliefs promote actions and behaviors that are acceptable and prohibits actions and behaviors that are considered undesirable. The final product resulted in the identification of 18 components that pertain to both individualism and collectivism. The components were summarized into 5 main dimensions: Responsibility, Autonomy/Conformity, Self-reliance/Interdependence, Values, and Achievement. Following is a description of each dimension.

Responsibility: Encompasses two components: Ethical-legal responsibility and consequences of actions.

Ethical-legal responsibility: It pertains to who is held responsible for a member's actions. More specifically, the individual is held responsible morally and/or legally for what he or she does in individualist societies, while the group or others with whom the individual is associated with are also held responsible.

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Consequences of actions: It concerns who is affected by the member's actions. In particular, the individual alone is affected in individualist societies, while in collectivist societies, the whole group or others with whom the actor is associated with are affected.

Autonomy/conformity: Encompasses four components: self-direction/conformity, right to privacy, personal privacy, and affiliation.

Self-direction/conformity: In individualists, it is defined by a high degree of self-assertion, where the individual makes independent judgments and decisions, and is non-conformist insofar that the decisions and judgments made are motivated by the individual. Collectivist societies on the other hand promote conforming to societal norms and decisions and judgments are based on compliance to the group norms.

Right to privacy: This component concerns the notion of privacy, where in individualist societies an individual maintains a private existence within the public domain, and is also afforded freedom from societal interference. On the other hand, the notion that the society as an entity is able and entitled to see and regulate what its members do and think, and possibly subject them to public scrutiny is illustrative of collectivist societies.

Personal privacy: Personal matters are kept private in individualist societies, while in collectivist societies, personal matters may be made public, and the public has a larger role in that it is solicited for sympathy and to advocate justice.

Affiliation: Preference for solitude and being alone is characteristic of individualist societies, while the company of others is preferred more in collectivist societies.

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Self-reliance/interdependence: Encompasses six components: Self-reliance/interdependence, individual/group interests, security, economic individualism/collectivism, political individualism/collectivism, and religious individualism/collectivism.

Self-reliance/interdependence: This component deals with where the responsibility for the individual's well-being lies. Individualist societies presume that the individual is responsible for his or her own welfare, based on his or her self-reliance. In contrast, for collectivist societies, well-being is based on interdependence and mutual help, with each individual's welfare depending on the welfare of the group. The group also assumes the responsibility for the welfare of its members.

Individual/group interests: This component involves the fulfillment of the individual's needs and interests. More specifically, it describes how actions are guided by self interests in individualist societies, while the fulfillment of obligations is the guiding force behind actions in collective societies. In other words, one's actions are directed by the consideration of the group's interests.

Security: The notion of security in individualist societies is found in the individual's strength, while collectives draw security from the group's solidarity and integrity.

Economic individualism/collectivism: The idea that an individual is rewarded based on his or her individual performance is indicative of individualist societies. Further, economic individualism denotes private ownership of property. On the other hand, collectivist societies are primarily concerned with the sharing of wealth, and are more egalitarian in the sense that there is more public or communal ownership.

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Political individualism/collectivism: The nature of political systems in individualist societies is set up in such a manner as to circumscribe control over to the individual, that is, the individual's rights are protected by law and the system exists to satisfy individual needs. In collective societies, the political system is primarily set up to preserve and protect the collective, such as the state or political party. Members' rights are considered secondary to those of the larger group.

Religious individualism/collectivism: This value can also be summarized in terms of religiosity, where in individualist societies the individual does not need an intermediary, and religious beliefs are considered highly personal. Conversely, collective societies promote participation in group worship. In other words, membership in religious institutions is essential for the salvation of the group first and then the salvation of others.

Values: Encompasses four components: value of the individual/group, human development, individuality/uniformity, and identity.

Value of the individual/group: This component depicts the intrinsic worth given to the individual or the group. In individualist societies, primacy is given to the intrinsic worth and value of the individual, whereas in collective societies, precedence is given to the value of the collective or group over that of the individual.

Human development: The focus of development is on self-actualization and self-realization. In individualist societies, it is the development and actualization of the individual to his or her fullest potential, whereas more collectivist societies focus on the development and actualization of the collective.

Individuality/uniformity: The focus is on how and what dictates how a person is to behave and look. In individualist societies, value is placed on those who differentiate

themselves from others, who seek to behave uniquely and individuate. Collectivist

societies encourage members to be more uniform, and to emulate a single model.

Identity: The source of a member's identity dictates his or her individualist or

collectivist inclination. An individual's identity that is defined by personal attributes and

a self-concept is illustrative of individualists, while an identity developed from a

collective identity and defined by group membership is descriptive of collectivists.

Achievement: Encompasses two components: Individual/group effort and

competition/cooperation.

Individual/group effort: The focus of achievement in individualist societies is on

independence, where single-handed efforts are rewarded and the emphasis is on the

individual's initiative. Conversely, collectivists tend to do things together, and collective

efforts are seen as superior.

Competition/cooperation: The attainment of excellence and achieving one's goals

through competition is more descriptive of individualist societies, whereas goals and

distinction are better achieved through cooperation and conformity in collectivist

societies.

The Current Study

This study aims to develop a reliable measure of individualism and collectivism

by looking at the various distributions of the dimensions (and their components) that

make them up, and to sample several cultures in the item writing task in order to better

represent the fullness of the constructs.

The crux of the issue is the identification of what constitutes culture – specifying

the dimensions that describe it. Research in this area, as described earlier, has shifted

from the idea of I/C as a single, bipolar construct towards the notion of defining I/C as a worldview or predilection. Culture is a highly complex construct that cannot be condensed into one dimension, reducing its complexities into one simple dimension. Oyserman, Coon, and Kemmelmeier (2002) point to the notion that it seems more reasonable to view societies as dealing with collective and individual oriented value choices, where any given society is likely to have at least some representation of both individualistic and collectivistic worldviews.

Both individualistic and collectivistic tendencies have been found to exist in individuals of different cultures. Additionally, within each tendency, it has been found that individuals in one culture could rate a particular facet or construct differently compared to another sample, while both can be described as being collectivistic (or individualistic). That is, two collectivistic cultures could differ in their ranking on these facets, indicating which facet(s) is (are) more important for that particular society. Vandello and Cohen (1999) found similar patterns *within* a country. Their study looked at the U.S., which has consistently been characterized as being individualistic, and found variations in the way the dimension was expressed depending on the region studied.

It seems, therefore, to be more appropriate to develop a scale that would encompass several facets that define cultures and societies, and collect data that would then be used to compare these cultures and societies. By identifying and measuring these dimensions and facets, researchers can then organize cultures empirically and develop complex descriptions about them.

The majority of existing I/C scales were developed in the U.S and China, where the items stemmed from one or both of these countries. While it may be that the items

represented those particular cultures, they do not represent the fullness of individualism and collectivism with respect to their facets, because the items were specific to the two cultures that are posited on opposite ends. This study will focus on drawing items from various cultures by asking individuals of various nationalities to write items that pertain to the identified dimensions and facets that make up I/C. The method used to come up with the items for the scale also involved efforts to prime item writers of their cultural values and beliefs, thus generating a diverse collection of items (Oyserman, Sakamoto, & Lauffer, 1998). Several reasons exist for creating a scale using such a procedure. First, it avoids the common pitfall of cross-cultural research that usually entails applying or transferring Western findings and measures to non-Western samples and countries. Second, having several nationalities write items ensures better coverage of the construct domain by including different cultural perspectives to a theoretically universal construct (Spector et. al, 2004).

The goals of this study therefore are fourfold: First, it is expected that the five outlined dimensions built into the scale form five separate factors as proposed by Ho and Chiu (1994). Second, with increased breadth in the content domain of the constructs and more items, better reliabilities are expected. Third, the scale will moderately correlate with both the Triandis scale and the Hofstede VSM 94. Finally, and possibly most interestingly, the scale intends to differentiate among different countries/regions , showing how each varies across the I/C dimensions depending on their geographical origin.

Phase-I

Method I

Participants

The total number of participants in phase-I of the study was 206 University of

South Florida undergraduate students drawn from the psychology subject pool. The

sample mean age was 22.1 years (SD = 2.83), and consisted of 162 females (78.6%) and

44 males (21.4%). The reported ethnicities by the participants were as follows: 61.7%

Caucasian, 13.1% African-American, 14.1% Hispanic, 2.9% Asian-American, 2.4%

Middle-Eastern, and 1.9% other. Approximately 53% of respondents reported working 20

hours or less per week, 37% reported working between 20 and 40 hours per week, and the

rest worked more than 40 hours per week. As compensation for their participation in the

study, all participants received extra credit for a psychology course.

Measures

Multidimensional Culture Scale (MCS): Culture was measured using 192 items

developed for the purpose of validation. The initial measure was made up of 5

dimensions (18 facets) - values, autonomy/conformity, responsibility, achievement, and

self-reliance/interdependence – discussed previously. To generate items for the

dimensions, 13 psychology doctoral students from various national backgrounds were

recruited. Each student was provided with clear and precise conceptual definition of each

dimension and asked to write items that reflect that definition. The item writing panel

included members from the following countries: Barbados, China, Germany, Israel,

Jordan, Lebanon, Turkey, the United States, and Venezuela. Also, item writers were

provided with a general definition of individualism and collectivism to provide direction for the items.

The research on I/C has indicated that each construct can be conceptualized differently depending on the culture. That is, collectivism in one culture can be different from collectivism in another one; where collectivist cultures can manifest several of the same defining attributes while still displaying other culture-specific attributes (Singelis et. al, 1995; Triandis, 1995). Therefore, getting as varied a perspective as possible would better cover the content domain and lead to better psychometric properties of the scale.

The items were scored on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree". The 192 items were evenly split in terms of "individualism" or "collectivism" worldviews, with high scores indicating individualism.

Cultural Orientation Scale (COS) (Triandis and Gelfand, 1998)*:* This scale, like the original, intends to measure various beliefs and attitudes that express individualistic and collectivistic tendencies. Further, it also distinguishes cultures in terms of horizontal and vertical patterns. A horizontal pattern supposes that any individual or person is generally like anyone else. In other words, there is a sense of equality among people. On the other hand, a vertical pattern consists of hierarchies, where a person is considered different from others. The combination of individualism and collectivism on the one hand with horizontal and vertical patterns creates four dimensions upon which cultures vary.

The original scale by Singelis et. al (1995) is made up of 32 items directed at 4 dimensions: Vertical-Individualism (V-I), Horizontal-Individualism (H-I), Vertical-Collectivism (V-C), and Horizontal-Collectivism (H-C). The alpha reliabilities for the

original subscales were as follows: r = 0.67 (H-I), r = 0.74 (V-I), r = .74 (H-C), and r = 0.68 (V-C).

For the shortened version of the scale developed by Triandis and Gelfand (1998), the same four dimensions are identified, with a total of 27 items. The items are rated on a 9-point Likert-type scale (1= strongly disagree, 9= strongly agree), and include items such as "*Being a unique individual is important to me*" (H-I) and "*Winning is everything*" (V-I). A high score on any of the subscales indicates a high degree of that characteristic that is being measured (e.g. a high score on horizontal-collectivism indicates a high degree of horizontal-collectivism). The coefficient alpha reliabilities for the subscales in phase-I were as follows: r = 0.60 (H-I), r = 0.62 (V-I), r = 0.68 (H-C), and r = 0.65 (V-C).

Hofstede Values Survey Module 1994 (VSM 94) (Hofstede, 1994)*:* This scale measures five dimensions or indices of national or regional culture: Individualism (IDV), power distance (PDI), masculinity (MAS), uncertainty avoidance (UAI), and long-term orientation (LTO), with four questions per dimension for a total of 20 items. The dimension of interest for this study was individualism (IDV). Spector et. al (2001) reported a mean reliability (coefficient alpha) of .52 for the IDV scale of Hofstede's VSM 94. Their study included a total sample of 6,524 from 23 countries. It should be noted that the items in the VSM 94 questionnaire are intended to measure differences at the country level. For proper psychometric analyses, Hofstede set the minimum number of respondents per country to be used in the comparisons at 20, and the ideal number is 50 (Hofstede, 1994). Phase-I reliability for the IDV portion of the VSM 94 was r = 0.79, and the items are written in the direction of individualism.

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Procedure

The set of 192 items were administered to undergraduate students at USF using the psychology department participant-pool. This allowed for the refinement of the scale to include a smaller number of internally-consistent set of items. The scales were uploaded onto the Experimentrak website (https://usf.experimentrak.net) where registered students could access the scales and record their responses. Students were not directly recruited, although those who registered in the psychology participant pool had access to the scales, and were compensated with extra credit.

<div align="center">Results and Discussion I</div>

Internal consistencies (Cronbach's alpha) were computed for each component and the total scale to test the level of item homogeneity, in addition to item-total correlations for each item for each subscale and the total scale. Items were eliminated if their deletion would raise the coefficient alpha for the scale and their item-total correlation was less than .35. The initial elimination process resulted in 98 items to be retained for further analyses. Exploratory factor analysis was run using SPSS that indicated a five factor solution. Further factor analyses were run for six, seven, and eight factor solutions on the 98 items. The final factor solution was determined quantitatively by examining the eigenvalues and factor loadings from the varimax rotated pattern matrix. The criterion for item retention based on the factor loadings was a minimum loading of +.35 on the primary factor. Items that did not load on any factor with a minimum loading of +.35 were considered for elimination. Further, the final factor solution was determined qualitatively using theory and interpreting the content of the items. Items that loaded on 2

or more factors with a minimum of +.35 were examined to determine if they made sense content-wise and consequently placed under the appropriate factor.

The factor analyses conducted indicated that a 5-factor solution should be retained. This decision was also supported upon reviewing the eigenvalues as well as the ease of interpreting the content of the loaded items. The largest eigenvalues were 9.48, 6.53, 4.10, 2.55, 2.31, 1.92, 1.67, 1.54, 1.50, 1.29, 1.26, 1.13, 1.07, 1.06, and 1. The five largest eigenvalues had a cumulative variance accounted for of 43%.

The criteria for item retention based on the results of the factor analysis using a five factor solution indicated that further item elimination was needed. A total of 65 items were later deleted due to low factor loadings and/or item content reexamination. The final scale is made up of 33 items (17 items for collectivism and 16 items for individualism).

Scale and item descriptives and reliability

For the phase-I sample, means, standard deviations, and subscale coefficient alpha coefficients are presented in Table 1. The mean for the total scale was *M=121.11* (SD=11.53). The overall internal consistency alpha coefficient was α= 0.83.

Table 1.

Phase-I Scale Descriptives and Reliability

	Mean	SD	Alpha	N
MCS Scale Total	121.11	11.53	0.83	206
Responsibility	37.72	4.22	0.84	206
Affiliation	27.81	3.66	0.81	206
Social Welfare	25.37	3.99	0.75	206
Religion	16.20	4.18	0.80	206

Table 1 (Continued).

Achievement	13.34	3.09	0.85	206
COS Total	172.05	17.12	0.76	261
Horizontal Individualism	35.93	5.28	0.60	261
Vertical Individualism	41.65	8.06	0.62	261
Horizontal Collectivism	55.34	6.55	0.68	261
Vertical Collectivism	39.12	6.18	0.65	261
VSM 94 - IDV	6.88	2.54	0.79	206

Factor solution

Upon reviewing the item content of each factor (see Table 2), it became apparent that the derived factors were somewhat different from those originally theorized by Ho and Chiu (1994). The first factor concerns issues of responsibility. For example, *"I think people should be held responsible for their own actions"* and *"I must pay for the consequences of my actions"* illustrate this dimension. The second factor concerns the idea of one's affiliation, and how that influences the formation of an identity, contrasting the focus of the identity between the individual and the group. For instance, *"The group I belong to is a significant part of who I am"* and *"I feel it is important to belong to a social group"* exemplify this idea. Factor 3 is primarily focused on the idea of social welfare and whether the group or the individual is the primary source of that. For example, *"Society is obligated to help those who can not help themselves"* and *"I think members of a group should care for each other's welfare"*. Factor 4 relates to religious beliefs and the idea of religiosity being group-focused or individual focused, as illustrated

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by *"Religious beliefs and practices are private"* and *"My religion concerns only me"*.

Finally, factor 5 concerns the idea of achievement or accomplishment. For example, *"It is more efficient to work alone than to work in a group"* and *"I do things best when I work alone"*.

Table 2.

Scale Items and Rotated Factor Loadings

Item	**Factor 1**	Factor 2	Factor 3	Factor 4	Factor 5
I am responsible if I do something wrong *	**.557**	-.049	.207	.027	.005
I think people should be held responsible for their own actions *	**.680**	-.120	.185	-.006	-.044
The individual is responsible for the consequences of his/her actions *	**.658**	.039	.130	-.167	.101
We are affected by our own actions *	**.670**	-.061	.167	-.106	.012
I must pay for the consequences of my actions *	**.685**	.076	.172	-.081	.032
My own development makes me feel strong and secure *	**.566**	.178	-.001	.088	.107

Table 2. (Continued).

Item	Factor 1	**Factor 2**	Factor 3	Factor 4	Factor 5
My group is important to me	.274	**.453**	.085	-.131	-.124
The group I belong to is a significant part of who I am	.062	**.532**	.167	-.116	-.077
I always keep in contact with my group	.188	**.633**	-.157	.117	.025
I feel it is important to belong to a social group	.164	**.540**	.141	.055	.053
Being part of a group makes me happy	.197	**.622**	.099	.003	-.065
I prefer being with other people	.291	**.554**	-.085	.132	-.084
I gain a sense of security by associating with a strong group	.127	**.468**	.190	-.049	-.020
I derive a sense of security from others in my social group	.176	**.509**	.184	.039	-.016

Table 2. (Continued).

Item	Factor 1	Factor 2	**Factor 3**	Factor 4	Factor 5
Poverty is the result of the failure of society	-.074	.088	**.540**	.169	-.001
Mutual help within a group means much for my well-being	.162	.342	**.416**	.076	-.013
Society is obligated to help those who can not help themselves	.173	.054	**.521**	.160	.004
It is important to share wealth and property for the common good	.137	.302	**.380**	.096	-.004
Sharing one's wealth is better than keeping it for oneself	.143	.220	**.395**	-.013	.050
The fortunate members of society should help benefit the less fortunate	.385	.154	**.364**	.109	.009
I think members of a group should care for each other's welfare	.475	.169	**.449**	.006	-.169

Table 2. (Continued).

Item	Factor 1	Factor 2	Factor 3	**Factor 4**	**Factor 5**
Established religion strives to control the individual *	-.055	.005	.176	**.530**	.095
I do not share my prayers with others, they are personal *	.041	-.005	.034	**.487**	.149
Religion is ultimately a highly private matter *	-.001	-.190	.160	**.578**	.045
Religious beliefs and practices are private *	.002	-.090	.149	**.669**	-.004
My religion concerns only me *	.012	-.091	.091	**.665**	.070
Things get done better when I work alone *	.133	-.122	.004	.107	**.773**
It is more effective to work alone than it is to work in a group *	-.106	.069	.009	.148	**.718**
I do things best when I work alone *	.158	-.217	.074	.120	**.813**
It is more efficient to work alone than to work in a group *	-.008	-.091	-.057	.237	**.641**

Note: * indicates individualism. Factor 1= Responsibility; Factor 2= Identity; Factor 3= Social welfare; Factor 4= Religious beliefs; Factor 5= Achievement

Ho and Chiu (1994) originally proposed five factors which were: responsibility, autonomy/conformity, self-reliance/interdependence, values, and achievement. Phase-I results indicate that indeed, a five factor solution was supported, although the factors themselves differed somewhat based on a review of the item content. The five factors that were identified from phase-I are: responsibility, affiliation, social welfare, religion, and achievement.

Scale Inter-Correlations

Zero-order Pearson correlations were computed for the MCS total, the five factors, the COS total and subscales, and the IDV from the VSM 94. The results are presented in Table 3. All factors correlated positively and significantly to the total score, with Responsibility, Identity, and Social Welfare correlating significantly above r= .58. Responsibility, Affiliation, and Social Welfare were found to negatively correlate with the IDV, while Religion and Achievement did not correlate with the IDV. It should be noted that a total score should not technically be computed for the IDV scale. Instead, the average score across the sample of each item is differentially weighted, summed, and then added to a constant to produce a country–level score. The correlation between the MCS and Hofstede's IDV was negative (r= -.56, p < .01).

No particular predictions regarding the relationship between the MCS factors and the COS subscales were made. Social Welfare was most strongly and positively correlated with HC and VC. Similarly, Affiliation was most strongly related to both HC and VC. Religion was positively correlated with both HI and VI, and negatively with VC. Achievement correlated positively with HI, and did not correlate significantly with the

other subscales. Finally, Responsibility was positively correlated with all the subscales,

significantly so with HI, HC, and VC.

Table 3
Phase-I Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12
1. Responsibility	--	.38**	.41**	.01	.02	.34**	.08	.43**	.20**	.68**	.38**	-.60**
2. Affiliation		--	.36**	-.06	-.12	-.06	.04	.51**	.41**	.58**	.34*	-.29**
3. Social Welfare			--	.13	.01	.09	.02	.38**	.20**	.70**	.25**	-.44**
4. Religion				--	.26**	.16*	.15*	-.01	-.14*	.47**	.07	-.07
5. Achievement					--	.24**	.13	-.11	-.01	.33*	.09	-.09
6. HI subscale						--	.28**	.23**	.17*	.25**	.59**	-.19**
7. VI subscale							--	-.01	.22**	.15*	.64**	-.09
8. HC subscale								--	.58**	.47**	.66**	-.35**
9. VC subscale									--	.25**	.74**	-.25**
10. MCS Total										--	.42**	-.56**
11. COS Total											--	-.33**
12. IDV												--

Note. * = p<.05, ** = p<.01

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Phase-II

The second wave involved administering the 98-item MCS (as well as Triandis and Gelfand's (1998) COS and Hofstede's (1994) IDV from the VSM 94) to an international student sample and an American sample that forms the basis for comparing mean differences among people from different nationalities. The participants were clustered into separate groups based on their geographical location. As Ronen and Shenkar (1985) point out, countries tend to group together geographically because for the most part, cultural similarity spreads first to areas closest to its origin. Other dimensions that are closely intertwined with geography and that also influence the clustering of countries are language and religion. The expectation is that each region will respond differently across the factors in terms of individualistic or collectivistic orientation. It is not enough to describe a culture or region as being individualistic or collectivistic in orientation - one should look into the dimensions that a particular culture is individualistic or collectivistic in.

Method II

Participants

The total number of participants in phase-II of the study was 152 University of South Florida international as well as American students contacted via the university's International Student and Scholar Services and the psychology department participant pool. The nine clusters identified in this study were: Western Europe, Eastern Europe, Middle East and North Africa, East Asia, South Asia, Caribbean, Latin America, Africa, and U.S. Table 4 presents the complete geographical distribution of the participants.

The sample mean age was 25.25 years (SD = 5.7). The gender distribution of the sample in phase-II was more balanced than that of phase-I. Of the 132 who indicated a gender, 64.4% were female and 35.6% were male. The participants came from various countries, and were grouped according to general geographical location. The largest group was from North America. (22.6%) followed by Latin America (16.5%) and South Asia (15.8%). The average length of stay of the international students in the U.S. was 41.2 months, with a minimum of 2 months and a maximum of 13 years. The majority of respondents in this sample (55%) reported working 20 hours or less per week, while 29% international students reported working between 20 and 40 hours per week, and 16% reported working more than 40 hours per week.

Table 4

Phase-II Participant Geographical Distribution

	Percentage	N
Western Europe	11.3	15
Middle East and North Africa	8.3	11
Eastern Europe	7.5	10
East Asia	4.5	6
South Asia	15.8	21
Caribbean	8.3	11
Latin America	16.5	22
Africa	5.3	7
U.S.	22.6	30

Measures

Multidimensional Culture Scale: Although the 98-item scale was administered, the final 33 items from phase-I were used for analyses. The item-scoring was on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree". Although the scale has near equal number of individualism- and collectivism-directed items, each subscale was uniformly in one direction except for Responsibility. Religion and Achievement items were in the direction of individualism, while Affiliation and Social Welfare were in the direction of collectivism. Items that were written in the direction of collectivism were reverse scored, and final scores on the factors were calculated in the direction of individualism.

In addition, participants in this phase responded to Triandis and Gelfand's COS (1998) scale as well as Hofstede's (1994) IDV subscale from the VSM 94 described earlier in phase-I. The coefficient alpha reliabilities for the subscales of the COS in phase-II were as follows: $\alpha = 0.65$ (H-I), $\alpha = 0.81$ (V-I), $\alpha = 0.70$ (H-C), and $\alpha = 0.72$ (V-C). Phase-II reliability for the Hofstede's IDV portion of the VSM 94 scale was $\alpha = 0.63$.

Procedure

USF international students were recruited via the International Student and Scholar Services (ISSS) office while the North American sample came via the psychology department participant pool. The scales were posted online on SurveyMonkey as well as on the Experimentrak website (https://usf.experimentrak.net). A website link was sent to all registered international students at USF via ISSS's listserve. Included in the surveys were demographic questions asking for the age, gender, home country, work hours, and length of stay in the US of the participants. Zero-order

Pearson correlations were computed for the three scales and subscales. Further, pairwise group comparisons were conducted using ANOVA with Duncan post-hoc to test the relationship among the factors and the geographic regions.

<div align="center">Results II</div>

Scale and item descriptives and reliability

Table 5 presents Phase-II scale results. The mean for the total scale was *M=107.19* (SD=13.82). The overall internal consistency alpha coefficient was $\alpha = 0.85$.

Table 5

Phase-II Sale Descriptives and Reliability

	Mean	SD	Alpha	N
MCS Total	107.19	13.82	0.85	156
Responsibility	23.73	7.27	0.89	156
Affiliation	29.73	4.61	0.81	156
Social Welfare	26.74	3.91	0.76	156
Religion	14.31	4.34	0.77	156
Achievement	12.23	3.65	0.91	156
COS Total	168.12	20.80	0.83	128
Horizontal Individualism	34.88	5.45	0.65	128
Vertical Individualism	39.70	10.99	0.81	128
Horizontal Collectivism	54.87	7.35	0.70	128
Vertical Collectivism	38.65	7.06	0.72	128
VSM 94 - IDV	6.21	1.86	0.63	127

Scale Inter-Correlations

Table 6 presents the zero-order Pearson correlations computed for the MCS scale, the five factors, the COS total and subscales, and the IDV. All factors correlated positively and significantly with the total score, with four of the five factors correlating at r= .49 or higher. The pattern of correlations among the factors for this sample is similar to that found in with the first sample. For example, Religion and Achievement were positively correlated in both samples as were Affiliation and Social Welfare. Of note is the negative correlation between Responsibility and Social Welfare in phase-II whereas it was positive in phase-I (-.18 vs. .38). Overall, the pattern of correlations shows a stronger relationship among the factors (both significant and non-significant) with the second phase sample than with the first phase sample.

The results in phase-II show that only Social Welfare correlated positively and significantly with the IDV, whereas Responsibility, Affiliation, Religion, and Achievement were not correlated. The correlation between the MCS scale and the IDV was near zero at r= -0.05.

With respect to the correlations between the five factors and the subscales of the COS, almost parallel results were found for Social Welfare, Affiliation, and Religion. The results for Social Welfare mirror those of phase-I with a significant, positive correlation with HC and VC. Similarly, Affiliation was most strongly and positively related to HC and VC, as well as VI. Religion was only strongly positively correlated with VC. The results for Achievement and Responsibility in phase-II differed from those found in phase-I. Whereas Achievement did not correlate with 3 of the 4 subscales of the COS in phase-I, phase-II results show that Achievement correlated positively with all

four subscales. Lastly, and perhaps most interestingly, Responsibility did not correlate

with any of the subscales in phase-II, whereas it correlated significantly with 3 of the 4 in

phase-I.

Table 6
Phase-II Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12
1. Responsibility	--	-.07	**-.18***	**.32***	**.43***	.09	.13	-.16	.04	**.68***	.05	-.13
2. Affiliation		--	**.43***	.10	.15	.01	**.35***	**.49***	**.42***	**.49***	**.50***	-.17
3. Social Welfare			--	.09	.08	.01	.05	**.42***	**.23***	**.38***	**.25***	**-.22***
4. Religion				--	**.33***	-.14	.02	.06	**.29***	**.63***	.09	-.06
5. Achievement					--	**.19***	**.19***	**.22***	**.25***	**.67***	**.31***	.09
6. HI subscale						--	**.33***	**.21***	.12	.06	**.55***	-.06
7. VI subscale							--	.10	**.27***	**.26***	**.74***	-.05
8. HC subscale								--	**.52***	**.24***	**.64***	**-.25***
9. VC subscale									--	**.37***	**.70***	-.04
10. MCS Total										--	**.36***	-.05
11. COS Total											--	-.14
12. IDV												--

Note. * = p<.05, ** = p<.01

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Group Comparisons

Participants' country of origin was used to come up with 9 geographical regions that will form the basis for the group comparisons (see Table 7). An ANOVA with Duncan post hoc was computed to make all the pairwise comparisons of group means across the five factors. Three factors had a significant overall F that warranted a post-hoc test: Responsibility $F (8,121) = 112.79$, $p<.001$; Religion $F (8,121) = 4.28$, $p<.001$; and Achievement $F (8,121) = 3.45$, $p<.001$; no significant differences were found between groups on Affiliation and Social Welfare. A high score on the factor indicates higher individualism. The results indicate that, with respect to responsibility, there appears to be 2 significantly different groups. For Responsibility, the U.S. sample scored highest and significantly different from all other groups. With respect to Religion, three distinguishable groups were possible: the samples from Africa and the U.S. scored highest, while the East European sample scored the lowest, with the rest of the regions making up the third group. Finally, with respect to Achievement, the U.S. sample scored the highest, while samples from Africa, East Asia, and the Middle East & North Africa scored in the middle, and the samples from South Asia, West Europe, Latin America, Caribbean, and East Europe scoring the lowest. Tables 8 and 9 present the results of the significant pairwise comparisons for the COS subscales and overall ANOVA respectively.

Table 7

MCS Significant Post-Hoc Group Comparisons

Responsibility		Religion		Achievement		MCS Total	
Region	Mean	Region	Mean	Region	Mean	Region	Mean
E. Europe	19.40^a	E. Europe	11.00^a	E. Europe	10.70^a	E. Europe	94.20^a
M.E. & N. Africa	19.70^a	South Asia	11.85^{ab}	Caribbean	11.27^a	South Asia	99.61^{ab}
Africa	20.00^a	W. Europe	12.33^{ab}	Latin America	11.71^a	Latin America	103.70^{ab}
Latin America	20.28^a	Latin America	13.90^{a-c}	W. Europe	11.73^a	W. Europe	103.85^{ab}
East Asia	20.33^a	East Asia	14.66^{a-c}	South Asia	11.85^a	Caribbean	104.60^b
South Asia	20.40^a	M.E. & N. Africa	15.30^{bc}	M.E. & N. Africa	12.70^{ab}	East Asia	107.16^b
Caribbean	20.80^a	Caribbean	15.36^{bc}	East Asia	12.83^{ab}	Africa	107.57^b
W. Europe	21.33^a	U.S.	16.93^c	Africa	14.00^{ab}	M.E. & N. Africa	109.11^b
U.S.	37.60^b	Africa	17.00^c	U.S.	15.33^b	U.S.	124.76^c

Note: Countries sharing the same superscript letter were not significantly different from each other according to Duncan post hoc tests.

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Table 8
COS Post-Hoc Group Comparisons

HI		VI		HC		VC	
Region	Mean	Region	Mean	Region	Mean	Region	Mean
East Asia	30.83[a]	Caribbean	29.45[a]	W. Europe	51.40[a]	W. Europe	31.86[a]
W. Europe	31.80[ab]	Africa	35.66[ab]	Africa	52.66[ab]	E. Europe	33.40[a]
Latin America	33.95[a-c]	Latin America	38.00[a-c]	U.S.	53.83[ab]	Caribbean	37.09[ab]
Caribbean	34.72[a-c]	W. Europe	38.40[a-c]	E. Europe	54.10[ab]	U.S.	39.23[bc]
Africa	35.00[a-c]	East Asia	38.66[a-c]	Latin America	55.04[ab]	Latin America	39.90[bc]
South Asia	35.77[a-c]	South Asia	41.33[bc]	East Asia	56.00[ab]	South Asia	40.38[bc]
U.S.	36.30[bc]	E. Europe	42.60[bc]	Caribbean	56.27[ab]	Africa	40.50[bc]
M.E. & N. Africa	36.72[bc]	U.S.	42.86[bc]	South Asia	56.38[ab]	East Asia	42.16[bc]
E. Europe	37.60[c]	M.E. & N. Africa	47.05[c]	M.E. & N. Africa	59.88[c]	M.E. & N. Africa	44.83[c]

Note: Countries sharing the same superscript letter were not significantly different from each other according to Duncan post hoc tests.

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Table 9

ANOVA Results

Source	η^2	df	F	p
MCS Total	0.48	8	13.66	.001
Responsibility	0.88	8	112.76	.001
Affiliation	0.07	8	0.97	.462
Social Welfare	0.08	8	1.21	.298
Religion	0.23	8	4.27	.001
Achievement	0.19	8	3.45	.001
Cultural Orientation Scale Total	0.17	8	3.04	.004
Horizontal Individualism	0.12	8	1.98	.054
Vertical Individualism	0.15	8	2.57	.013
Horizontal Collectivism	0.08	8	1.26	.268
Vertical Collectivism	0.24	8	4.69	.001
Hofstede VSM 94 - IDV	0.06	8	.92	.498

Discussion II

Implications

The goal of this study was fourfold: First, it aimed to test the structure of the dimensions proposed by Ho and Chiu (1994). To this end, a scale was developed through the targeting of psychology graduate students of various nationalities as item writers who generated the items for the scale. Second, the study meant to address the concerns over the reliability of previous measures by virtue of increased content breadth of the constructs in addition to having more items in each scale. The third goal was to test the degree of relatedness of the new scale with scales by Triandis and Gelfand (1998) and Hofstede (1994). Lastly, by sampling international students, the study aimed to investigate the notion that cultural tendencies vary by dimension across geographical regions.

The original five factors proposed were responsibility, autonomy/conformity, self-reliance/interdependence, values, and achievement. Upon reviewing both data and item content of each factor, a five factor solution was indeed supported, although the factors themselves differed somewhat. The scale consisted of the following factors: responsibility, affiliation, social welfare, religion, and achievement.

Comparing the original definition of responsibility as proposed by Ho and Chiu (1994) with the item content of the factor in the MCS, it is apparent that both ethical-legal responsibility and consequences of actions remain as dimensions of the factor. Similarly, in the same way that Ho and Chiu (1994) defined achievement, the items that make up the Achievement factor in the MCS focus on the individual's initiative, effort,

and effectiveness in the pursuit and attainment of goals, contrasting individual effort with collective effort in that pursuit.

The items that make up Affiliation indicate that it encompasses three related ideas that are influenced by the degree of affiliation one has to the group: security, identity, and value of the individual/group. Security is gained from either the individual or from the group, one's identity is dictated either by personal attributes or group membership, and the individual or the group is given precedence and intrinsic value over the other.

Social Welfare encompasses two components of self-reliance/interdependence, specifically well-being and economic sharing. The onus of an individual's well-being and welfare lies either in his/her hands or falls under the obligation of society. The idea of sharing wealth versus private ownership also describes this factor.

Religion as its own factor refers not to religiosity per se; rather it contrasts membership and participation in religious institutions with highly personal and private expression of one's religious beliefs.

The results of phase-I showed that social welfare was most strongly and positively correlated with HC and VC, indicating that the welfare and well being of people is considered the burden of society rather than the individual. Similarly, affiliation correlated positively with HC and VC. It seems that one's identity is derived more from how society views them and is dependent on whether individuals are considered of equal status or not, and less from the individual's perspective and the individual's independence from other group members. In other words, the source for an individual's identity resides without the person and within his/her identified group rather than on personal attributes. Drawing from the positive relationship between religion and both HI

and VI, and a negative relationship with VC, it seems that one's religious beliefs are more individual-based or of a private nature, regardless of status, and there is less deference to a higher status group for guidance. This relationship is indicative of preferences towards independence from memberships in religious institutions. Achievement correlated positively with HI, and did not correlate significantly with the other subscales. A possible explanation for this finding is that the meaning of achievement for the U.S. sample may be conceptualized as equal opportunity competition, that is, the individual competes with others on equal footing or at least, each individual has the opportunity to compete equally with others. Finally, Responsibility was positively correlated with all the subscales, significantly so with HI, HC, and VC, indicating that responsibility is not necessarily only individual based but that some responsibility falls on the group, and that the degree of responsibility one feels is partly dependent on equal status within the group.

For the most part, phase-II results presented similar relationships among the factors and the subscales as those found in phase-I, with different relationships for achievement and responsibility. Underscoring the role of interdependence among members of a society, the results for social welfare and affiliation mirror those of phase-I with a significant, positive correlation with HC and VC. Unlike phase-I, Religion was positively correlated with VC indicating a preference to memberships in religious institutions, and deference to a higher status group for religious guidance. This sample indicated that one's religious beliefs are less individual-based and of a private nature. Achievement correlated positively with all four subscales of the COS scale, signifying

the importance of achievement across different cultures. Lastly, and perhaps most interestingly, Responsibility did not correlate with any of the COS subscales.

While the sample sizes for the individual groups were small, the results are nonetheless illuminating. The results provide some evidence for the conceptualization of individualism and collectivism as worldviews or orientations, and that cultures would differ in their orientation depending on the pertinent dimension being measured. In other words, there is variation in the expression of individualism and collectivism across regions. Across the three significant factors, the U.S. sample scored the highest or near highest, indicating a higher individualist orientation. Also, the East European sample scored consistently the lowest, indicating a higher collectivist orientation. Having scored the highest and significantly more different than the other groups on responsibility, the implication is that the U.S. has a more individualist orientation to responsibility. While the result of the U.S. scoring highest may come as no surprise, the more illuminating data is where the other groups ranked on those factors. For achievement, the East Asian sample scored third highest after the U.S. and African samples, and higher than the West European sample - bucking the generalization that eastern cultures are in general a collectivistic group. Similarly, the Middle Eastern/North African sample scored mid-pack on achievement. Similar trends can be seen with religion, where the African sample was most individualistic in their orientation, followed by the U.S. sample. Again, East Asian and Middle Easter/North African samples ranked near the middle in terms of individualist/collectivist orientations. When summed, the total scores across geographical groups shows an interesting trend in that the U.S. sample overall was most individualist,

followed by the Middle Eastern/North African sample, while both the East and West European samples were more collectivists.

Study Limitations

Several limitations to the study exist. Both samples consisted of university level students that cannot be considered accurate representations of the general population because of differences in terms of level of education and socioeconomic backgrounds. The convenience sampling also resulted in a larger female representation of participants, particularly in phase-I, where most participants were undergraduate psychology majors (a predominantly female undergraduate population). Future directions should sample more working, non-student populations, and perhaps comparing students and non-student samples to determine whether in fact there are any differences between these two groups on these measures.

While most studies use a single cross-group comparison, this study attempted to circumvent this issue by sampling international students from many countries. Unfortunately, a small number of international students from each country were sampled in phase-II. This resulted in grouping participants by geographical location, potentially introducing greater value heterogeneity into the groups than would occur for individual countries.

Future Directions

With respect to organizational research, there is a valuable need in linking individualism and collectivism to workplace variables, particularly with the ever-changing organizational landscape. Each year, more businesses choose to operate in different cultures by opening branches of their offices in various countries, and hiring

employees from the host culture, while maintaining U.S. senior managers. With this expansion comes the need to develop and apply measures that make sense in the new culture and can more appropriately assess employees.

The direction psychology has been taking is towards the inclusion of culture (and cultural factors) into the study of behavior and psychology. With this inclusion come several issues such as refining the theory of cross-cultural psychology, the operationalization of culture, determining the process(es) by which cultural factors are linked to (work) behaviors, and determining the various areas of applicability and research.

This study hopes to extend the empirical research that is undergoing in the area to catch up with the progressing theoretical development. It aims to fill the need of having an individual level measure of individualism and collectivism covering new dimensions in the hopes of aiding in the accounting of cross-cultural differences currently observed in many studies. The main direction research in this area should take is in expanding the distribution of cultural groups selected for study. As expressed earlier, the most widely studied groups are the US and China, and the ensuing inferences made from these samples to the theory of cross-cultural psychology is risky. What could help this new direction and gaining access to new countries is the ever-growing expansion of organizations and the establishment of branch offices in several previously inaccessible and unexplored countries. Needless to say, the expansion of the internet as a means of communication is greatly beneficial for testing large number of cultural groups. In terms of using better methodologies, the literature points towards focusing on metric equivalence of constructs across varied populations, as well as moving away from relying

on Likert-type scales. While psychology and cross-cultural psychology is still for the most part dominated by western views and driven by the attempt to understand the "other", one can take solace in the change that is underway where more psychologists from various cultural origins - who learn and train in western psychology - bring with them alternative explanations stemming from their respective cultures.

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Appendices

Appendix A: Multidimensional Culture Scale

<u>DIRECTIONS TO PARTICIPANTS:</u>

This questionnaire is anonymous, and there is no right or wrong answer.

The purpose of this study is to know if you strongly agree or disagree with the statements listed below. If you strongly agree enter a 5 in the blank space; if you strongly disagree, enter a 1 in that space.

A response key is provided to guide you with your responses.

Strongly Disagree   1   2   3   4   5   Strongly Agree

	1	2	3	4	5
VALUES					
Value of the individual					
I put my family first when it comes to making important decisions					
Each individual is invaluable and their interests should not be presided over by group welfare *					
My group's interest is more important than my individual interest					

It is always important to maintain one's individuality within the group *					
I put my needs before the needs of my close friends *					
Groups that demand uniformity and compliance inhibit individual potential *					
Groups that advocate cooperation enhance individual diversity					
My group is important to me					
I value my own individuality over my group *					
I prefer working with a group of people over working alone on most tasks					
I would sacrifice my own well-being for the sake of my group's					
I put my needs before those of others *					
Individuals are very valuable to the group *					
Value of Human Development					
Developing my 'self' is more important than developing relations with others *					
I strive to do what I feel is right for me *					
My success is dependent on the people who are in my life					
Realizing one's potential to the fullest should be a priority in one's life *					
My success is up to me alone *					

The best of me develops because of the help of my group					
I strive for the best that is good for the community					
I'd like to find a job in which my full potential is realized *					
Fulfilling my personal goals is more important than the goals of my family *					
Personal success is dependent on my effort alone *					
Humans need to develop to their fullest potential *					
Value of individuality/uniformity					
I am different from my peers *					
I like to lead my own fashion *					
Some people make arguments only to stand out from the group *					
If I don't agree with my group's decision I let them know about it *					
Standing out in a group should be encouraged and rewarded *					
I try to behave in line with my group's norms					
I do everything in my own way *					
My life will be easy if I keep uniform with others around me					
I like being different from the rest of my family *					
I don't want to be trend-setter					
Value of Identity					
I tend to adhere to my family's values					

My life loses its meaning if I don't know my position in the society					
I never let anybody define me *					
It is okay for an individual to not identify with their cultural background *					
My identity comes from being a member of my group					
The group I belong to is a significant part of who I am					
My identity is based on what I think not my ethnic background *					
I am proud of my cultural heritage					
I am no one without my family					
It is important for individuals to identify with their cultural background					
Human identity derives from human self-perceptions *					
I identify myself based on personal attributes *					
AUTONOMY/CONFORMITY					
Self-direction/conformity					
I usually go against the mainstream opinion *					
I do what I think is right, not what society thinks is right *					
I usually do what is expected from me					
I make decisions for me first, and then I think of other people*					

My social group knows what is best for me					
Most of the times I think and do what I want regardless of what others think *					
Group norms are more important than individual rules					
The group knows better what is right for the individual					
The direction of my life is dependent on my own judgments and decisions *					
I do not make a particular decision if my family is against it					
When making decisions I consider the consequences for others					
I conform to what my social identity dictates					
Right to Privacy					
I think that politicians' private lives need to be scrutinized by the public					
I think society should not interfere with my privacy *					
I think society's responsibility to regulate supersedes individual privacy					
I don't care what my neighbors say or think about my lifestyle *					
It is my relatives' right and duty to ask and find out about my personal life					
Individual's private life should be free of any intervention					

from outside *					
One's group should regulate an individual's life					
My family is involved in my private matters					
People should be able to speak their mind without fear of social repercussions *					
I have the right to privacy *					
Personal Privacy					
I don't discuss my personal matters *					
I think my personal matters should be kept private *					
I think personal matters could be made public if for the common good					
It is okay for people close to me to know private things about me					
I tell people who are close to me only the things I feel that they need to know about me *					
I ask for advice from my group regarding private matters					
I enjoy sharing my personal concerns with people around me					
I don't discuss any of my private matters with my friends *					
One should consult with family members when trying to decide on personal matters					
Private matters should be kept confidential *					
Affiliation					

I don't enjoy socializing *					
I prefer to be alone most of the time *					
I prefer to spend time with family and friends					
I wish my family would keep to itself in certain matters *					
I prefer to be in the company of one good friend instead of a group of good friends *					
I like to be alone and have time for myself *					
I enjoy socializing with family and friends					
I always keep in contact with my group					
I prefer working together with others to working alone					
I feel it is important to belong to a social group					
Being part of a group makes me happy					
Socializing in groups of good friends should be a priority					
I prefer being with other people					
RESPONSIBILITY					
Ethical/Legal Responsibility					
I am responsible if I do something wrong *					
I think people should be held responsible for their own actions *					
I think members of a group should share the responsibilities brought by the other members' actions					
Whenever possible I try to minimize my responsibility					

towards society *					
The family is responsible when a child becomes a criminal as an adult					
The individual is responsible for the consequences of his/her actions *					
The individual has sole responsibility for his/her actions *					
I take full responsibility of the actions that I make *					
Each individual is responsible for his/her moral and legal actions *					
My social group is as responsible for my actions as I am					
Consequences of Actions					
I am very mindful about the consequences of my actions for others					
We are affected by our own actions *					
My actions affect other members of the group or society					
I am careless in my actions if their consequences do not affect me *					
If I act in wrongful manner, my family will pay the consequences					
I believe one should act keeping the group's welfare in mind					
One should not engage in actions which may dishonor the group					

My actions also have consequences to people around me					
I must pay for the consequences of my actions *					
My actions affect my group as much as their behavior affects me					
ACHIEVEMENT					
Individual/group effort					
Things get done better when I work alone *					
Great progress comes from collective efforts					
Team effort is superior to individual creative ideas					
It is more effective to work alone than it is to work in a group *					
My successes result from my own efforts *					
I do things best when I work alone *					
I look for help from others whenever I cannot do something					
A good leader drives the team performance *					
I like to work alone towards my goals *					
It is more efficient to work alone than to work in a group *					
My achievements are mine alone *					
My accomplishments are the result of my effort along with others'					
Competition/Cooperation					
I usually perform better in competitive situations *					

I think the best can only be brought out by competition *					
I feel comfortable when a team agrees for the sake of unity					
Group work is the best way to succeed					
I always prefer cooperation to competition					
Success feels better when achieved through competition *					
I can only attain my goal through competing with others *					
I like to work with others					
Goals are best accomplished through cooperation					
SELF-RELIANCE/INTERDEPENCDENCE					
Self-Reliance/Interdependence					
The fortunate members of society should help benefit the less fortunate					
I think members of a group should care for each other's welfare					
Poverty is the result of the failure of society					
Man is not a solitary being					
My welfare depends on my group's welfare					
Everyone is responsible for his/her own well-being *					
My welfare depends on myself *					
Mutual help within a group means much for my well-being					
My family plays a key role in my wellness					
Society is obligated to help those who can not help					

themselves					
I am self-reliant *					
Relying on others is a weakness *					
Individual/Group Interest					
I weight all my actions in terms of their contributions to the society					
I think people are most motivated by their self interests *					
People are motivated to fulfill obligations to the group or society					
The decisions I make have ramifications for other people close to me					
The needs of the many take priority over the needs of individuals					
My group's interests have priority over my own interests					
I try not to pursue a goal that is in conflict with my society's interests					
I do things to please my family unit					
I do not care about others as long as my needs are met *					
Security					
I believe in strong leadership *					
I gain a sense of security by associating with a strong group					
The chain is only as strong as its weakest link					

I am more confident when I am around my group					
My individual strength will ensure my security *					
I derive a sense of security from my own strength *					
I need my group to feel safe					
My own development makes me feel strong and secure *					
I feel secure when I am alone *					
Knowledge of one's audience provides more confidence					
I derive a sense of security from others in my social group					
Economic Individualism/Collectivism					
Private ownership is the key to wealth *					
It is important to share wealth and property for the common good					
I will lend my neighbor something dear to me if he needed it					
Communal ownership is preferable to private ownership					
I believe that one should share things with others					
Sharing one's wealth is better than keeping it for oneself					
I like to keep my personal wealth for myself because I earned it *					
I have an obligation to look after my parents economically					
It is expected that adult children will take care of their aging parents					
My wealth is my own *					

Political Individualism/Collectivism					
I feel closer to people with the same political attitudes as mine					
Individual rights are of the utmost importance *					
The state should have power over individual rights to regulate					
All rights should satisfy individual needs and be regulated by laws *					
The focus of a political system should be the individual *					
I prefer government policies that are in favor of the majority					
An individual's rights should not be violated for political gain *					
My rights are above those of my group *					
Religious Individualism/Collectivism					
Religion is about having a personal relationship with God *					
My personal salvation is reached only after the salvation of the group					
Established religion strives to control the individual *					
Religion should put the needs of the group before the individual					
I do not share my prayers with others, they are personal *					
Private prayer is different from praying in church/temple/mosque *					
Religion is ultimately a highly private matter *					

Religious beliefs and practices are private *					
My religion concerns only me *					
Religious institutions should place the benefit of the institution first					
My relationship with God is one on one *					
Religion should help an individual further understand his/her faith *					

Note: * indicates individualism

Demographic questions:

1) **Gender:**   Male   Female

2) **Age:**

3) **Race/Ethnicity:**

    White/Caucasian

    Black/African American

    Hispanic/Latino/Latina

    Asian/Pacific Islander

    Native American

    Middle Eastern

    Other _____

4) **Year in college:**

    Freshman

    Sophomore

    Junior

Senior

Other _____

5) **Nationality:** _____

6) **Country of origin:** _____

7) **Length of stay in the US:** _____

Appendix B: Culture Orientation Scale

DIRECTIONS TO PARTICIPANTS:

This questionnaire is anonymous, and there are no right or wrong answers.

We want to know if you strongly agree or disagree with some statements. If you strongly agree enter a 9 in the blank space; if you strongly disagree, enter a 1 in that space; if you are unsure or think that the question does not apply to you, enter a 5 next 5 to the statement.

In short, use this key:

Strongly Agree   1   2   3   4   5   6   7   8   9   Strongly Disagree

TRIANDIS & GELFAND (1998) 27 ITEMS:

Horizontal Individualism:

I'd rather depend on myself than others.

I rely on myself most of the time; I rarely rely on others.

I often do my own thing.

My personal identity, independent of others, is very important to me.

Being a unique individual is important to me.

Vertical Individualism:

It is important that I do my job better than others.

Winning is everything.

Competition is the law of nature.

When another person does better than I do, I get tense and aroused.

I enjoy working in situations involving competition.

73

Some people emphasize winning; I am not one of them (reversed).

Without competition, it is not possible to have a good society.

It annoys me when other people perform better than I do.

Horizontal Collectivism:

If a coworker gets a prize, I would feel proud.

The well-being of my coworkers is important to me.

To me, pleasure is spending time with others.

I feel good when I cooperate with others.

If a relative were in financial difficulty, I would help within my means.

It is important to me to maintain harmony in my group.

I like sharing little things with my neighbors.

My happiness depends very much on the happiness of those around me.

Vertical Collectivism:

Parents and children must stay together as much as possible.

It is my duty to take care of my family, even when I have to sacrifice what I want.

Family members should stick together, no matter what sacrifices are required.

It is important to me that I respect the decisions made by my groups.

Children should be taught to place duty before pleasure.

I usually sacrifice my self-interest for the benefit of my group.

*Scramble these items when using.

Appendix C: Values Survey Module

V S M 9 4

VALUES SURVEY MODULE 1994

QUESTIONNAIRE

English version

MAY BE FREELY USED FOR RESEARCH PURPOSES

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PERMISSION IS NEEDED

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INTERNATIONAL QUESTIONNAIRE (VSM 94)

Please think of an ideal job, disregarding your present job, if you have one. In choosing an ideal job, how important would it be to you to ... (please circle one answer in each line across):

1 = of utmost importance

2 = very important

3 = of moderate importance

4 = of little importance

5 = of very little or no importance

1. Have sufficient time for your personal or family life   1 2 3 4 5

2. Have good physical working conditions (good ventilation

    and lighting, adequate work space, etc.)   1 2 3 4 5

3. Have a good working relationship with your direct superior   1 2 3 4 5

4. Have security of employment   1 2 3 4 5

5. Work with people who cooperate well with one another   1 2 3 4 5

6. Be consulted by your direct superior in his/her decisions   1 2 3 4 5

7. Have an opportunity for advancement to higher level jobs   1 2 3 4 5

8. Have an element of variety and adventure in the job   1 2 3 4 5

In your private life, how important is each of the following to you? (please circle one answer in each line across):

9. Personal steadiness and stability   1 2 3 4 5

10. Thrift   1 2 3 4 5

11. Persistence (perseverance)   1 2 3 4 5

12. Respect for tradition   1 2 3 4 5

INTERNATIONAL QUESTIONNAIRE (VSM 94)

13. How often do you feel nervous or tense at work?

    1. never

    2. seldom

    3. sometimes

    4. usually

    5. always

14. How frequently, in your experience, are subordinates afraid to express disagreement with their superiors?

    1. very seldom

    2. seldom

    3. sometimes

    4. frequently

    5. very frequently

To what extent do you agree or disagree with each of the following statements? (please circle one answer in each line across):

       1 = strongly agree

       2 = agree

       3 = undecided

       4 = disagree

       5 = strongly disagree

15. Most people can be trusted   1 2 3 4 5

16. One can be a good manager without having precise answers to most questions that subordinates may raise about their work   1 2 3 4 5

17. An organization structure in which certain subordinates have two bosses should be avoided at all costs   1 2 3 4 5

18. Competition between employees usually does more harm than good

       1 2 3 4 5

19. A company's or organization's rules should not be broken - not even when the employee thinks it is in the company's best interest   1 2 3 4 5

20. When people have failed in life it is often their own fault

       1 2 3 4 5

INTERNATIONAL QUESTIONNAIRE (VSM 94)

Some information about yourself (for statistical purposes):

21. Are you:

   1. male

   2. female

22. How old are you?

   1. Under 20

   2. 20-24

   3. 25-29

   4. 30-34

   5. 35-39

   6. 40-49

   7. 50-59

   8. 60 or over

23. How many years of formal school education (or their equivalent) did you complete (starting with primary school)?

   1. 10 years or less

   2. 11 years

   3. 12 years

   4. 13 years

   5. 14 years

6. 15 years

7. 16 years

8. 17 years

9. 18 years or over

24. If you have or have had a paid job, what kind of job is it / was it?

1. No paid job (includes full-time students)

2. Unskilled or semi-skilled manual worker

3. Generally trained office worker or secretary

4. Vocationally trained craftsperson, technician, informatician, nurse, artist or equivalent

5. Academically trained professional or equivalent (but not a manager of people)

6. Manager of one or more subordinates (non-managers)

7. Manager of one or more managers

25. What is your nationality?

26. What was your nationality at birth (if different)?

Appendix D: Non-Significant Post-Hoc Group Comparisons

Table 10

Non-Significant Post-Hoc Group Comparisons

Affiliation		Social Welfare		VSM 94 - IDV	
Region	Mean	Region	Mean	Region	Mean
E. Europe	27.90	E. Europe	25.20	Caribbean	5.36
Africa	28.57	U.S.	25.46	E. Europe	5.40
W. Europe	29.13	South Asia	26.68	South Asia	6.00
U.S.	29.43	East Asia	27.16	Latin America	6.18
South Asia	29.73	Latin America	27.42	W. Europe	6.30
Caribbean	30.18	Caribbean	27.54	U.S.	6.56
Latin America	30.75	Africa	28.00	M.E. & N. Africa	6.66
M.E. & N. Africa	32.00	W. Europe	28.14	East Asia	6.83
East Asia	32.16	M.E. & N. Africa	28.40	Africa	6.83

Note: Countries sharing the same superscript letter were not significantly different from each other according to Duncan post hoc tests.