
**Development of a New Measurement Tool for Individualism and Collectivism**

Hofstede (1980, 1983, 1991) argued that there were four major dimensions that could be used to classify societies according their cultural attributes: collectivism-individualism, power-distance, masculinity-femininity, and uncertainty-avoidance. The most important of these was the first, and it has generated a plethora of research studies. Hofstede (1980) claimed that collectivism and individualism were two poles of the one dimension, and western countries such as those in Western Europe, North America, Australia and New Zealand can be categorised as individualistic societies whereas societies from Africa, Middle East (excluding Israel), East Asia and South America can be categorised as collectivist societies (Hofstede 1980, 1991). Hofstede (1980) also found positive correlations between the level of Individualism (at country level) and the gross national product (GNP), population size, and population density.

A major problem of Hofstede (1983) work, which he himself noted, was that the measurement was at the country rather than at the individual level. It thus assumes that members of these countries are homogenous on IND and COL, and this is not only unlikely, but also subject to empirical evaluation. In addition, the populations studied in the surveyed nations were middle class so they represented a narrow segment of the population, and this further limits the validity of comparison between countries.

Oyserman Coon and Kemmelmeier (2002) criticised Hofstede’s choice of the level of analysis, and also noted the lack of stability of his findings as they were influenced by the economic and historical circumstances of the seventies, when the data were collected and analysed. For example, some years later Hofstede showed that the Japanese had become more individualistic (Oyserman et al., 2002). In a replication, Spector Cooper & Sparks (2001) failed to support the Hofstede (1980) study, and also noted that the reliability of his scales was poor. Similarly, Baskerville (2003) challenged Hofstede’s methodology and implications by suggesting that ‘Hofstede’s never studied cultures’, but confused cultures with nations.

To begin to allow for social behavioural differences within cultures, Triandis and Singelis (Triandis 1995, Singelis, Triandis, Bhawuk, & Gelfand 1995) added an independent bi-polar scale, the horizontal-vertical scale, to the collectivism- individualism. The horizontal category expressed the sense of equity among individuals whereas the vertical category expresses the sense of inequity and existence of different ranks among individuals within the society. Horizontal- individualism was defined as the desire of people to be unique and distinct from each other, without seeking high social status. Vertical- individualism was defined as the wish to acquire higher status through individual competition. Horizontal-collectivism was defined as a sense of being similar and equal to others, sharing goals and interdependence. Vertical-collectivism was defined as integrity with the group including self-sacrifice for the sake of the in-group and submission to authority. In addition, the vertical collectivists support competition between the in-group and the out-group (Triandis & Gelfand 1998). In a short, Triandis (1995, p. 46) claimed that vertical- individualism related to achievement orientation, horizontal collectivism to cooperative behaviour, vertical collectivism to dutiful behaviour and horizontal individualism to unique social behaviour.

**Measurement of IND and COL**

In a recent major review and meta-analysis of 83 studies on Collectivism and Individualism, Oyserman et al. (2002) highlighted the three most common measurement tools for Collectivism and Individualism (a) the Independent- Interdependent (SCS) scale (Singelis, 1994), used in 19 US and international studies, (b) the Horizontal-Vertical Collectivism–Individualism scale (Singelis, Triandis, Bhawuk, & Gelfand 1995), used by 16 US and

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¹ Boaz Shulruf, PhD student, University of Auckland, School of Education b.shulruf@auckland.ac.nz

² Prof. John Hattie, University of Auckland, School of Education j.hattie@auckland.ac.nz

³ Dr. Robyn Dixon, University of Auckland, School of education r.dixon@auckland.ac.nz
international studies and (c) the INDCOL measure (Hui, 1988), which was employed in ten international studies. In analysing these scales Oyserman et. al. (2002) identified seven major domains relating to individualism and eight major domains relating to collectivism (Table 1). The majority of the studies related collectivism to ‘sense of duty to group’, ‘relatedness to others’, seeking others’ advice’, ‘harmony’ and ‘working with group’. The domains of ‘sense of belonging to group’, ‘contextual self’ and ‘valuing hierarchy’ were used less often. Individualism was defined in the majority of the studies as ‘valuing personal independence’ however the other domains such as ‘personal achievement’, ‘self-knowledge’, ‘uniqueness’, ‘privacy’, ‘clear communication’, and ‘competition’, were employed in less than a third of the studies.

<table>
<thead>
<tr>
<th>Domain name</th>
<th>Description</th>
<th>Sample item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individualism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Independent</td>
<td>Freedom, self-sufficiency, and control over one’s life</td>
<td>I tend to do my own thing, and others in my family do the same.</td>
</tr>
<tr>
<td>Goals</td>
<td>Striving for one’s own goals, desires, and achievements</td>
<td>I take great pride in accomplishing what no one else can accomplish.</td>
</tr>
<tr>
<td>Compete</td>
<td>Personal competition and winning</td>
<td>It is important to me that I perform better than others on a task.</td>
</tr>
<tr>
<td>Unique</td>
<td>Focus on one’s unique, idiosyncratic qualities</td>
<td>I am unique—different from others in many respects.</td>
</tr>
<tr>
<td>Private</td>
<td>Thoughts and actions private from others</td>
<td>I like my privacy.</td>
</tr>
<tr>
<td>Self-know</td>
<td>Knowing oneself; having a strong identity</td>
<td>I know my weaknesses and strengths.</td>
</tr>
<tr>
<td>Direct communicate</td>
<td>Clearly articulating one’s wants and Needs</td>
<td>I always state my opinions very clearly.</td>
</tr>
<tr>
<td>Collectivism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Related</td>
<td>Considering close others an integral part of the self</td>
<td>To understand who I am, you must see me with members of my group.</td>
</tr>
<tr>
<td>Belong</td>
<td>Wanting to belong to and enjoy being part of groups</td>
<td>To me, pleasure is spending time with others.</td>
</tr>
<tr>
<td>Duty</td>
<td>The duties and sacrifices being a group member entails</td>
<td>I would help, within my means, if a relative were in financial difficulty.</td>
</tr>
<tr>
<td>Harmony</td>
<td>Concern for group harmony and that groups get along</td>
<td>I make an effort to avoid disagreements with my group members.</td>
</tr>
<tr>
<td>Advice</td>
<td>Turning to close others for decision help</td>
<td>Before making a decision, I always consult with others.</td>
</tr>
<tr>
<td>Context</td>
<td>Self changes according to context or situation</td>
<td>How I behave depends on who I am With, where I am, or both.</td>
</tr>
<tr>
<td>Hierarchy</td>
<td>Focus on hierarchy and status issues</td>
<td>I have respect for the authority figures with whom I interact.</td>
</tr>
<tr>
<td>Group</td>
<td>A preference for group work</td>
<td>I would rather do a group paper or lab than do one alone.</td>
</tr>
</tbody>
</table>

Attributes of Individualists

From the studies using these scales, it has been found that individualists are more likely to prioritise the self and be explicit in enhancing their self-esteem (Triandis 1996). They also desire to enhance or emphasise their personal goals, interests and values over the
society they relate or belong to (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985; Hsu, 1983; Kagitcibasi, 1994; Kim, 1994; Markus & Kitayama, 1991; Sampson, 1977; Triandis, 1995 Oyserman at al 2002, Triandis 1996). Individualists are likely to belong to more in-groups in comparison to collectivists (Triandis 1989).

Attributes of individualists include an emphasis on personal responsibility and freedom of choice (Waterman 1984), personal autonomy and self-fulfilment (Hofstede 1980), distinctive personal attitudes and opinions (Oyserman & Markus, 1993;Triandis, 1995), autonomous behaviour independence of groups (Reykowski, 1994), need for detachment from others and individual autonomy (Andersen, Reznik, and Chen 1997) and functioning according to personal choices (Walsh & Banaji 1997). Individualism also relates to attributes of personal success, status and competitive characteristics (Bellah et al., 1988, Chiu, Jyh-shen, 2001, Oyserman & Markus, 1993, Gudykunst, Matsumoto, Ting-Toomey, Nishida, Kim, & Heyman, 1996, Triandis, 1995, Triandis, Bontempo, Villareal, Asai, & Lucca, 1988, Schwartz, 1990). However, competition was only related to the vertical aspects of individualism, which means relative to the rank of the person within his or her social group (Triandis 1996, Singelis, Triandis, Bhawuk, & Gelfand 1995). The distinction of the individual from others is defined in terms of the uniqueness of the self in comparison to the other (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985; Hsu, 1983; Kagitcibasi, 1994; Kim, 1994; Markus & Kitayama, 1991; Sampson, 1977; Triandis, 1995; Triandis & Gelfand 1998; Oyserman & Markus, 1993; Walsh and Banaji 1997).

These individualistic attributes can be expressed in a personal communication style (Gudykunst, Matsumoto, Ting-Toomey, Nishida, Kim, & Heyman, 1996; Holtgraves, 1997, Triandis, 1995). Triandis & Suh (2002) showed that direct communication was a typical behaviour of individualists, and there is a higher likelihood of using ‘I’ more than ‘we’ and of being more assertive (Wu & Rubin 2000).

Attributes of Collectivists

In contrast, collectivists are likely to value belonging to their in-group or culture and relating one’s self to the group (e.g., family, tribe, nation etc., Fiske 1992; Hofstede 1980; Hsu 1983; Kim 1994; Markus & Kitayama 1991). The influence of the in-group is much stronger on collectivists (Triandis 1989). Belonging to the group is not just a matter of identification, it is subordination of personal goals to the collective’s goals and taking into account the needs of others. This is because collectivists give more weight to norms as determinants of their social behaviour (Triandis 1996). They identify themselves as members of a group to which they belong, and thus they internalise the group’s goals and values and give these higher priority (Hofstede, 1980; Hsu, 1983; Kim, 1994; Markus & Kitayama, 1991; Triandis, Bontempo, Villareal, Asai & Lucca 1988). In a more distinct way, Triandis (2000b), suggested that collectivists tend to be very sensitive to other in-group members, and can be quite distant from out-group people (Oyserman 1993, Schwartz 1990), and even hostile when conflict arises from out groups.

There are a number of dimensions, which can distinguish individualists from collectivists, such as the relation to the group, the role of hierarchy, the need to belong to a group, the use of language, and the role of family.

An important component of belonging to a group is focusing on in-group relationships and seeking for harmony among the in-group (Oyserman et. al. 2002; Markus & Kitayama, 1991; Oyserman, 1993; Triandis, 1995). Morling and Fiske (1999) found that harmony correlated with interdependence and collectivism. The value of keeping harmony and ‘saving face’ is most present in conflict situations. Ohbuchi, Fukushima and Tedeschi (1999) showed that collectivists prefer to deal with conflicts by methods that maintain relationships with others (e.g. mediation) while individualists seek justice.

One of the symptoms of group binding is a sense of hierarchy. Hierarchy can be a collectivist as well as an individualist attribute (Triandis, 1995; Singelis, Triandis, Bhawuk, & Gelfand 1995). For collectivists hierarchy acts as a reference that shows them their position or rank within their in-group, whereas for individualists hierarchy relates more to competition as, Individualists are seeking to move higher than others on the social scale/level (Triandis 1995, Singelis, Triandis, Bhawuk, & Gelfand 1995).

The sense of belonging to the group among collectivists affects their well being as their life satisfaction depends more on their ability to fulfil social obligations, roles and expectations (Kim, 1994; Kwan, Bond & Singelis, 1997; Markus & Kitayama, 1991). Singelis (1994) suggested that the collectivists are obligated to their in-group, sacrificing the self-good
or self-interest for the good of the collective.

The communication style of the collectivists is characterised by a tendency to use indirect language (Gudykunst 1997; Gudykunst & Matsumoto 1996, Holtgraves 1997; Triandis 1995; Triandis & Suh 2002). Such indirect communication is associated with emotional restraint and the desire to keep harmony and save face within the group (Kim, 1994; Gudykunst, Matsumoto, Ting-Toomey, Nishida, Kim, & Heyman 1996. Markus & Kitayama, 1991; Gudykunst, Ting-Toomey, Chua 1998; Kwan & Singelis, 1998, Holtgraves 1997). Collectivists are likely to present themselves in relation to the relevant in-group by using expressions such as “my family thinks I am too busy” or “my co-workers think I am kind” (Triandis, McCusker, & Hui 1990).

The familialism domain appears in the literature as associating with collectivism although the pattern is less convincing (Hofstede 1980, Fiske 1992, Markus & Kitayama, 1991, Li 2002). Some authors have argued that collectivists place high value on belonging to their in-group and particularly their family (Hofstede, 1980; Hsu, 1983; Kim, 1994; Markus & Kitayama, 1991; Watkins Akande, Fleming et al. 1998). In contrast, Fischer (2000) found that North Americans, who are often considered the model of individualism, favoured immediate family interests over their own interest. Such findings have led researchers, such as Gaines, Marelich, Bledsoe, et al. (1997), to claim that familialism may be a separate domain from collectivism. This disagreement in the literature lead Oyserman et al. (2002) argue that familialism is a distinct domain, which does not relate to the Col-Ind polarity.

In sum, collectivism includes a sense of belonging and duty to in-groups, interdependence with group members, maintenance of one's social status, seeking harmony and avoiding conflicts, and a preference for an indirect communication style. Individualism includes distinction of the self from others, a dominance of self-reliance, values self interest and personal goals over those of society striving for personal goals, and a preference for a direct communication style. It is unclear whether familialism relates to collectivism and individualism. It may be that relationships with wider family members may be associated to collectivism, however relationships with the immediate family members are probably similar in both types of cultural constructs.

Assessment of IND COL

Oyserman et al. (2002) suggested that there was no current measurement tool that assess all the critical attributes of IND and COL. Their review identified three current measurement tools that go part way to resolving this issue.

Singelis (1994) developed the Self-Construal Scale (SCS) to measure independence-interdependence. The independence relates to individualism while the interdependence relates to collectivism (Singelis 1994, Markus & Kitayama 1991). The SCS was tested on University students from Hawaii who were from a variety of cultures (European Americans, Japanese, Koreans, Hawaiians, Filipinos, and mixed). The reliability of the scales was between .70 to .74.

The horizontal-vertical, collectivism-individualism scale was devised as a short and reliable measure of IND and COL, crossed with horizontal and vertical (Singelis, Triandis, Bhwuk, & Gelfand 1995). There are 32 items divided in four 8-item sub-scales (H-I, H-C, V-I, and V-C). Based on a sample of US (white) and Hawaii students, the reliability of the four sub-scales was between .67 to .74. To validate the tool they checked the correlation of each of the four sub-scales with Singelis’ SCS tool and found that the H-I scale was related positively to SCS independence (r = .45, p < .001) and negatively to SCS interdependence (r = -.25, p < .001), the H-C scale was positively related to SCS interdependence (r = .43, p < .001) not related to SCS independence (r = .05, p = ns), the V-C scale was correlated with SCS interdependence (r = .50, p < .001) and negatively related to SCS independence (r = -.26, p < .001). V-C was positively associated with East Asians and negatively associated with West Europeans. While the authors claimed that SCS is more reliable than earlier tools it does have some difficulties. The vertical horizontal dimensions were not validated against any previous standard, and only face validity was assumed.

Hui (1988) developed the INDCOL scale, a 63 items questionnaire for measuring collectivism and individualism. The participants were students from U.S. (ethnicity not reported) and Hong Kong universities. Hui validated his tool using experts and other tools that measured social interest, need for approval, obligation-intention correspondence and
responsibility sharing. The scale did not have high estimates of reliability (Cronbach alpha ~ .60), and it has not been tested using a wide range of cultures or a wide range of population within cultures.

One of the issues of these instruments is that they ask respondents to report on their attitudes, values, and beliefs as part of the daily life. Schwarz & Oyserman (2001) claimed that respondents cannot provide valid reports in such a generalised manner as the responses may be sensitive to differences in contexts. They pointed out that collectivism and individualism might be expressed differently in different contexts or in different societies. This means that a value might be related to collectivism or individualism in one society but not in another. This challenges studies which have used the above scales as well as studies using “priming technique” which raises the cultural frames to the awareness of the respondents in order to clarify the differences between cultures.

A possible direction for making the scales more related to behaviour and attitudes across different contexts is to ask the respondents to react to the frequency rather than intensity of beliefs (as one can be intense about a belief in some situations but not in others). In the scale developed in this study a frequency rather than intensity set of responses was used.

Further, Schwarz & Oyserman (2001) presented evidence that the understanding of “very important” or “very much agree” is quite vague among many respondents and is likely to be understood differently in different cultures. For example, Bachman and O’Malley (1984a) and Clarke (2000) found that African Americans and Hispanics tend to respond more extremely then non-African Americans or non-Hispanic people when using agreement scales (see also Ji, Schwarz, & Nisbett, 2000; Peng, Nisbett, & Wong, 1997). Heine, Lehman, Peng & Greenholtz (2002) argued that people compared themselves to the people they know, which means others from within their own culture. This means that any attribute they relate to themselves by comparing to others within their own culture cannot be compared to the same response in another culture, as the frame of reference of agreement can be different in different cultures. Again, this effect could be minimised by using a frequency rather than agreement scale. Frequency scales relate the prevalence of behaviour or thought unlike agreement scales, which relate to comparisons of values and beliefs to those dominant in the socio-cultural environment.

**Purpose of this study.**

The purpose of this study was to establish a reliable and easy to use measurement tool for collectivism and individualism, which avoids weaknesses of previous tools (for example, Oyserman et. al (2002); Heine et. al. (2002)). In particular the new tool attempts to avoid the ‘cultural deprivation’ bias and the confounding influence of familialism as well as to include the vertical and horizontal dimensions of collectivism and individualism in a more practical way.

**Method**

The development of the current measurement tool for collectivism and individualism was based on the meta-analysis of Oyserman et al. (2002). The scales in Table 1 above (from Oyserman) includes the scales that were used to frame the current study and the aim was to select the best set of items as indicators of each of these dimensions. A list of items was drawn up, which included items from current IND-COL tests and those developed by the authors. In all, this provided a list of 353 items.

The items were initially arranged in a list without any modification. Three scholars familiar with this literature were given the list and definitions of the Oyserman et al. dimensions, and asked to independently assign each item to one of Oyserman’s dimensions. Only items that at least two scholars had referenced to the same domain from Oyserman’s list were retained after the first round. Items under dispute were reconsidered by all three scholars and were included only if a consensus could be reached. Some minor word changes were made to ensure a closer fit to the domains. Four domains (‘Goals’, ‘Relate’, Group’ and ‘Context’). were excluded from the final list because they, overlapped with items from other domains, and / or because there was little agreement among the three item reviewers Oyserman et al. (2002) defined ‘context’ as ‘self changes according to context or situation’. Using the word ‘context’ to define context did not provide clearer definition. The dimensions ‘hierarchy’, ‘duty’ and ‘harmony’ all deal with adaptation of ones’ behaviour to suite the social consequences relating to the group he/she is belonging to. In addition, the
example they provided for ‘context’ which was ‘How I behave depends on who I am with, where I am, or both’ seemed to be associated more with ‘duty’ (duty to adjust self behaviour to the social circumstances) then to the broad definition of context (see Table 1).

It was difficult to assign items to ‘goals’ or ‘compete’. An excellent example is the item that Oyserman provided as the example for ‘goals’, as it is more likely to be associated with ‘compete’ (‘I take great pride in accomplishing what no one else can accomplish’). This definition relates to being better then others, which means competition. Being competitive maybe one form of expressing personal goals, therefore “competitive” items were included in the ‘goals’ domain.

It is further argued that the definitions for the domains ‘belong’, ‘relate’ and ‘group’ are similar. ‘Belong’ was defined by Oyserman et. al. as ‘wanting to belong to and enjoy being part of groups’ and the example item was “To me, pleasure is spending time with others”. ‘Group’ was defined as: ‘A preference for group work’ and the example item was “I would rather do a group paper or lab than do one alone.” It was not possible to make a clear distinction between these two definitions particularly as ‘preference’ or “wanting to belong” are very similar. ‘Relate’ was defined by Oyserman et. al. as: ‘considering close others an integral part of the self’ and the example item was: ‘To understand who I am, you must see me with members of my group’ which in a way describes the sense of ‘belong’ (‘...being part of groups’). It seems that these items and domains are all part of a “belong” dimension, and thus all such items were referenced to this higher order dimension.

Many items were rephrased from a negative to a positive form, in order to facilitate understanding, (Hague 1993, Oppenheim 1986), and reduce the probability of finding a negative-positive set of factors (which could be caused by linguistic factors, or response sets). Other items were modified to include language more appropriate for the age group (ages 15-40) and to a frequency scale. The final list of 66 items (Appendix 1) was compiled into a questionnaire using six anchors as part of a frequency scale from ‘Never or almost never’ to ‘Always’.

The first seven items in the questionnaire were purposely more ‘friendly’ and easy to respond to so as to reduce any negative attitudes towards the questionnaire and to reduce the number of people who might not wish to complete it to the end. The other 59 items were ordered randomly. Three adults were asked to complete the questionnaire so we could assess time for completion, and to receive feedback on any confusing or unclear component in the questionnaire. As a consequence, three further items were changed from a negative to positive form and five items were changed to better fit the frequency scale.

Sample

was Undergraduate students who were studying education and visual art at the University of Auckland, Manukau Institute of Technology campus were invited to complete the Auckland Individualism Collectivism Questionnaire (AICQ).

Of the 206 students who were invited to participate in the study 199 (96.6%) completed the questionnaire. Sixty six percent of respondents were female, 20% were male, and the others did not report on gender. About a quarter defined themselves as New Zealand European (28.6%), 14% as Maori, 32% as Pacific, 16% as Asian, 5% as “Others”, and 5% did not report on ethnicity. The age range was quite large: 93 (46.7%) were between 15-25 years of age, 43 (21.6%) between 26-35, 35 (17.5%), 36-45 and 13 (6.5%) were aged over 45 year. Fifteen (7.5%) did not report on their age.

Results

After initial cleaning of the data, a maximum-likelihood factor analysis with oblimin rotation was used to estimate the factor loadings. The initial factor analysis of the 66 items revealed six clear factors. The first factor included items relating to responsibility and direct communication style, the second to items pertaining to advice seeking, mostly from family members. The third factor related to hierarchy, duty and harmony. The fourth to competition, independence, privacy and direct communication. The fifth factor included items relating to belonging and duty to the group, and the sixth factor related to uniqueness and detachment from the others. Twenty-one items did not relate to any factor, did not load on any further factors (e.g., a 7th or 8th, etc.) and were thus dropped from further analysis.

These items had some common issues that led to their omission. Many confounded the role of the family (e.g., “I would choose to take care of a sick relative rather than go to work” could refer to immediate family or to far relatives), confused the interests for promotion
and closeness (“It is important to consider the needs of those who work above me”), did not clearly identify the in- or out-group (“I am clear and direct in what I say” – to whom?), implied a consequence which could be neutral or negative (“I do not support a group decision when it is wrong”), or could be interpreted as both (e.g., “I try to adjust to other people’s feelings when we are communicating” could be related to striving for personal goals as well as closeness).

The final set of 30 items related uniquely to each of the six factors (Table 2). Three of these factors related to Collectivism (Advice, Harmony and Closeness) and three factors related to Individualism (Compete, Unique and Responsibility). The estimates of reliability (alpha) for each scale was .77 for advice, .71 for harmony, .72 for closeness, .78 for compete, .76 for unique, and .73 for responsibility. The factor pattern, and correlations between the factors are presented in Tables 2 and 3.

Table 2: Factor pattern and correlations between the factors.

<table>
<thead>
<tr>
<th>Factor name</th>
<th>Horizontal / Vertical</th>
<th>Item No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compete</td>
<td>Vertical</td>
<td>Q60</td>
<td>0.81</td>
<td>0.04</td>
<td>0.02</td>
<td>-0.23</td>
<td>-0.01</td>
<td>0.12</td>
</tr>
<tr>
<td>Compete</td>
<td>Vertical</td>
<td>Q31</td>
<td>0.79</td>
<td>-0.03</td>
<td>0.02</td>
<td>-0.12</td>
<td>0.03</td>
<td>0.04</td>
</tr>
<tr>
<td>Compete</td>
<td>Vertical</td>
<td>Q66</td>
<td>0.61</td>
<td>0.04</td>
<td>0.05</td>
<td>0.24</td>
<td>-0.05</td>
<td>-0.06</td>
</tr>
<tr>
<td>Compete</td>
<td>Vertical</td>
<td>Q36</td>
<td>0.56</td>
<td>0.01</td>
<td>0.03</td>
<td>0.08</td>
<td>-0.02</td>
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</tr>
<tr>
<td>Advice</td>
<td>Vertical</td>
<td>Q5</td>
<td>0.13</td>
<td>-0.80</td>
<td>0.07</td>
<td>0.02</td>
<td>-0.10</td>
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<tr>
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<td>Q12</td>
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<td>Q47</td>
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<td>Q53</td>
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<td>0.00</td>
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<tr>
<td>Advice</td>
<td>Horizontal</td>
<td>Q58</td>
<td>0.03</td>
<td>-0.40</td>
<td>-0.11</td>
<td>-0.07</td>
<td>0.27</td>
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<tr>
<td>Unique</td>
<td>Horizontal</td>
<td>Q7</td>
<td>0.03</td>
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<td>0.79</td>
<td>0.05</td>
<td>0.08</td>
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<tr>
<td>Unique</td>
<td>Horizontal</td>
<td>Q14</td>
<td>0.06</td>
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<td>0.76</td>
<td>-0.03</td>
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<td>Unique</td>
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<td>Q34</td>
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<td>-0.03</td>
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Table 3 Factor Correlation Matrix

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**Discussion**

The purpose of this study was to establish a reliable and easy to use measurement tool for collectivism and individualism, which avoids the ‘cultural deprivation’ bias and the confounding influence of familialism, as well as to include the vertical and horizontal dimensions of collectivism and individualism in a more practical way. The results of the study show that all objectives are fully met.

The major finding from the factor analysis was the presence of six clearly interpretable factors, three relating to Individualism (Compete, Unique and Responsibility), and three to Collectivism (Advice, Harmony and Closeness).

The final set of items relating to the Compete factor did not include the “goal” items, as when the latter were included it was less clear that the final factor was part of the individualism scales. It seems that both individualists and collectivists can respond to the “goal” items in different and often overlapping ways. That the final set of items only related to “compete” is consistent with previous researchers (Osierman et al. 2002, Triandis, 1995; Schwartz 1990; Gudykunst et. al. 1996; Triandis, Bontempo, et al. 1988; Bellah et al. 1988; Chiu 2001).

For the ‘Unique’ factor there were only 3 items although the estimate of reliability was sufficiently high such that total scores can be meaningfully interpreted. There were no further items that could be found within the items set to add to this factor. The “privacy” items (item 54: ‘I like my privacy’) were expected to load on this factor, but this did not eventuate. Uniqueness was retained in line with Osierman et al. (2002) suggestion that it is well established as one of the critical attributes relating to individualists (Markus & Kitayama, 1991; Triandis, 1995. Triandis & Gelfand 1998).

Ten items loaded on the ‘Responsibility’ factor. As noted by Osierman et al. (2002), the items related to different aspects of responsibility such as self-know (item 1 ‘I prefer to be self-reliant rather than depend on others’), duty (item 22 ‘It is my duty to take care of my family, even when I have to sacrifice what I want’), direct communication, and independence (item 62 ‘Being able to take care of myself is a primary concern for me’). The common denominator for these items is the responsibility that one takes on his/her self. Note, the item “item 22” relates more to Responsibility and not to Familiarism, and again suggests that the family is a social context and the more important dimensions pertain to how we consider our duty or responsibility to this social grouping. The direct communication items relate primarily to persons in authority, hence their loading on the Responsibility factor (e.g., “I consult with superiors on work-related matters”). This factor, therefore, relates to a respondents sense of responsibility to self, others, and the manner in which he or she communicates this responsibility.

The items in the **Harmony** factor did not, as expected by Osierman et al. (2002), include aspects of hierarchy and duty – but were more specifically related to avoiding conflicts. Complying with the rules of the social structure whether it is vertical or horizontal and acting with considerations of the social status and relationships with others, all are kinds of attitudes driven from the wish to avoid conflicts with others. This includes the requirement for self sacrifice on behalf of the others, if needed. The inclusion of items such as “I show respect to superiors, even if I dislike them,” “It is important to me to respect decisions made by the group,” and “I try to adjust to other people’s feelings when we are communicating” provide strong support to the sense of avoidance of conflicts regardless the social context (vertical or horizontal). Although the attribute of Harmony was broadly associated with collectivism in previous works (Triandis 1995; Gudykunst 1996; Markus & Kitayama, 1991; Osyerman, 1993) the inclusion of notions of duty to group, acknowledge and maintain hierarchy in the society, and relating to social context clearly identifies this factor as a critical
part of collectivism.

Three of the six “Closeness” items related to Oyserman’s domain of ‘belongingness’, two related to ‘duty’ and one to ‘privacy’. Closeness thus relates to not only the wish to be a member of a group (belonging) but also the wish to share with the group duties (items 38) and or feelings (item 37). This is in line with previous studies that defined collectivists as people who value belonging to the group (Hofstede, 1980; Hsu, 1983; Kim, 1994; Markus & Kitayama, 1991; Fiske 1992), and being sensitive to other in-group members and taking into account the needs of others (Triandis 1996). The concept of Closeness does not, however, necessarily refer to those in our “in group” as it also can relate to closeness to those in our out-groups. For example, the reliability and factor loadings of this factor increased when the following two items were omitted: “To me, pleasure is spending time with others” and “I help acquaintances, even if it is inconvenient”. Closeness is more meaningfully concerned with closeness to others, whether they are in the in- or out-group. This is consistent with the claims by Triandis (1995), Markus and Kitayama (1991) and Oyserman et al. (2002), who suggested that collectivists may make clear distinctions between in-group and out-group, while responding to them in similar ways.

The final model excluded the domain of familialism although it has been often discussed in the literature. The ‘family’ items appeared in the final model only in the ‘Advice’ factor. Other items that related to family but not to advice, were removed from the analysis in all models tested. This is in line with Oyserman et al. (2002) who found that there is lack of consensus in the literature as to whether or not familialism is part of collectivism. It may be that familialism is a distinct domain, that it does not relate to the Col-Ind distinctions.

Items relating to direct communication did not, as expected, converge into distinct factor. A close inspection of the conceptual reasoning indicated that direct communication describes behaviour, which is an expression of the other factors. In a way, people employ different communication styles to apply their attitudes. Gudykunst (1997) suggested that: “communication and culture reciprocally influence each other” and more specifically Gudykunst et al. (1996) concluded that high context cultures employ a communication style which is likely to be ambiguous, seeking harmony, and interpersonally sensitive. Low context cultures employ a communication style, which is likely to be open, precise, and based on feelings. Thus, communication can be more appropriately related to the other six factors in varying ways. Respondents can be direct in communication relating to duty (collectivism) or to responsibility (individualism).

In sum, the AICO was found as a reliable measure for collectivism and individualism which is also free of cultural deprivation and familialism bias. In addition it provides clearer and more sensitive definitions for the dimensions of collectivism and individualism. However, this tool has not been tested yet for extensive variety of populations, so until this is done using the AICO should be with caution.

It was interesting to note the low correlation between the factors. No pattern was found in the direction of the correlation between the factors and this might support the independence of collectivism and individualism dimensions from each other. On the other hand, if further steps are taken, one might suggest that the independence of collectivist and individualist attributes may apply within the entire six factors / dimensions and not be limited to the original classification of individualism and collectivism dimensions.

The lack of agreement in the literature about the role of familialism (Oyserman et al. 2002), the increasing number of critiques on the methodology of the cross-cultural research (Matsumoto 1999; Heine et al. 2002; Voronov & Singer 2002) and the alternative models suggested by Freeman & Bordia (2001), raises the need for further research. This research might refine the ‘cultural syndrome’ (Triandis 1995) by dealing with it in more sensitive tools. The ability to measure people’s behaviour by relating to more specific dimensions, such as provided in the AICQ, might provide better explanations to some of the controversial finding in the cross cultural research.
References


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Appendix 1 - List of items

1. I prefer to be self-reliant rather than depend on others.
2. I hate to disagree with others in my group.
3. In interacting with superiors, I am always polite.
4. As a rule, I openly express my feelings and emotions.
5. I consult my parents before making an important decision.
6. I do not support a group decision when it is wrong.
7. I consider myself as a unique person separate from others.
8. I am clear and direct in what I say.
9. It annoys me when other people perform better than I do.
10. It is important to me to respect decisions made by the group.
11. I feel lonely when not with my brothers, sisters, or close relatives
12. I discuss job or study-related problems with my parents.
13. Even when I strongly disagree with my group members, I avoid an argument.
14. I enjoy being unique and different from others.
15. Family members should stick together, no matter what sacrifices are required.
16. Children should be taught to place duty before pleasure.
17. I would rather struggle through a personal problem by myself, than discuss it with my friends.
18. It is important to consider the needs of those who work above me.
19. I like to be accurate when I communicate with a person in authority.
20. I consult with co-workers on work-related matters.
21. In arguments, I insist on very precise definitions.
22. It is my duty to take care of my family, even when I have to sacrifice what I want.
23. I openly show my disagreement with others.
24. It is important for me to act as an independent person.
25. To me, pleasure is spending time with others.
26. I prefer to be direct and forthright when dealing with people I've just met.
27. I like to be accurate when I communicate.
28. I respect the majority's wishes in the groups I belong to.
29. When faced with a difficult personal problem, it is better to decide for myself, than follow
the advice of others.
30. It is important to make a good impression on one's manager.
31. I enjoy working in situations involving competition with others.
32. I prefer to work hard for less money than to depend on my parents' support.
33. I consult with superiors on work-related matters.
34. I see myself as "my own person".
35. If a close family member (e.g., my brother or sister) were in financial difficulty, I would help within my means.
36. Competition is the law of nature.
37. I reveal personal things about myself.
38. I have the feeling that my relationships with others are more important than my own accomplishments.
39. I like to live close to my good friends.
40. I identify myself as a member of my community.
41. I maintain status differences between my superiors and me.
42. When I disagree with a person in authority, I express my disagreement.
43. To me, pleasure is spending time with my superiors.
44. I use my feelings to decide if I should trust another person.
45. One should live one's life independently of others.
46. Superiors should not ask their employees personal questions.
47. I consult my family before making an important decision.
48. I sacrifice my self-interest for the benefit of my group.
49. I tell people little about myself until I get to know them well.
50. I help acquaintances, even if it is inconvenient.
51. I accept awards or recognition based only on age or position rather than merit.
52. I'd rather say "No" directly, than risk being misunderstood.
53. Before taking a major trip, I consult with most members of my family and many friends.
54. I like my privacy.
55. My personal identity independent of others is very important to me.
56. I try to adjust to other people's feelings when we are communicating.
57. I show respect to superiors, even if I dislike them.
58. It is important to consult close friends and get their ideas before making a decision.
59. I take responsibility for my own actions.
60. I define myself as a competitive person.
61. I am proud when my superiors are recognized for their accomplishments.
62. Being able to take care of myself is a primary concern for me.
63. I would choose to take care of a sick relative rather than go to work.
64. In a social situation, I feel uncomfortable if everyone else is talking except me.
65. Freedom of action and thought is a prime value for me.
66. Without competition, it is not possible to have a good society.