Is the Five-Factor Model of Personality applicable across cultures?

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McCrae (2004) stated "…trait structure, age and gender differences, and cross-observer agreement are all universal…" (p.3). Earlier, Passini and Norman (1966) were less categorical with a hint at the possibility of a universal conception of personality and Digman and Inouye (1986) noted the possibility that the FFM was not only applicable to "American populations" and to the "English language" (p.116) but also to non-Western cultures such as China, Japan and the Philippines. However, Guthrie and Bennett's (1971) work with Philippine participants led them to dispute Passini and Norman's (1966) claim that the dimensions tapped by Norman's (1963) measuring instrument (basic dimensions of human perception) were universal. These researchers found distinct differences in personality structure when comparing Philippine participants with an American norm (sample size of 100). More specifically, the Filipino sample tended to hold a similar conception of Extraversion to the Americans, but Culture and Conscientiousness factored down into a Sophistication factor (Guthrie & Bennett, 1971). On the other hand, Emotional Stability broke down into two factors labelled Worry/Anxiety and Somatic Symptoms. Finally, Agreeableness was found to include more behavioural manifestation in the Philippine sample than the American sample. With this in mind, Bond, Nakazato and Shiraishi (1975) carried out research using a Japanese sample and Norman's (1963) original measuring instrument and procedure. Their research showed that although three of the five factors were clearly replicated, the factors of Emotional Stability and Culture were less congruent when compared with Norman's (1963) US sample. This, according to Bond et al. (1975), indicated that these two factors are construed in different ways in Japan in comparison to the USA.

Jackson's (1984) 352 item Personality Research Form (PRF) measures 22 scales related to Murray's list of Needs (Murray, 1938). The PRF has been widely viewed as a "model of scale construction" (Costa & McCrae, 1995, p.217). Factor analysis following administration of this questionnaire in a variety of cultures (Canada, England, the Netherlands, Norway, and Israel) has shown that five factors emerge which can be interpreted within the FFM (Paunonen et al., 2000). McCrae and Costa (1997) found that the factor structure of personality as measured by the NEO-PI-R (Costa & McCrae, 1992a)

was similar across 7 different cultural and 5 diverse language groups (American, German, Portugese, Hebrew, Chinese, Korean and Japanese). Factors A (Agreeableness) and E (Extraversion), however, showed less congruence with the Japanese sample when compared to an American normative sample. This is interesting given Saucier and Goldberg's (2001) observation that it is typically factors N (Neuroticism) and O (Openness to Experience) that do not always appear in cross-cultural lexical studies of the Big-5. However, returning to the FFM (as opposed to the Big-5 conceptualisation), Agreeableness and Openness showed the lowest internal consistencies in McCrae et al.'s (2000) study of a translated/locally modified NEO-FFI in the UK, Germany, Spain, the Czech Republic and Turkey. Costa and McCrae (1992a) make the important point that the finding of congruence between American normative samples and other cultures does not imply that each of those cultures does not possess other traits outside of the FFM, that is, indigenous traits.

In another comparison of the factor structure of the NEO-PI-R, McCrae et al. (1996) found that the personality factor loadings of a Chinese sample of 352 Hong Kong university students displayed a very close congruence to an American normative sample. This provided further support for the cross-cultural replicability of the NEO-PI-R (and FFM), although, facet O4: Actions, had a weaker congruence with the American data. McCrae himself was initially 'astounded' that a number of studies showed the factor structure of the NEO-PI-R replicated "almost perfectly" across cultures (McCrae, 2002), although he goes on to state "…I have come to expect that all basic features of trait psychology are universal…" (McCrae, 2002: Sect. About the Author). This is not surprising given that overall, studies of the factor structure of the NEO-PI-R in 40 languages/dialects from over 30 cultures have found at least reasonable approximation to the questionnaire's intended factor structure (McCrae & Allik, 2002). Allik and McCrae (2004), conducting a secondary analysis on data from 36 cultures found that geographically proximate cultures often have similar NEO-PI-R profiles. They found that American and European profiles were in contrast to African and Asian profiles, with the former being higher in Extraversion and Openness to Experience and lower in Agreeableness. They explain that the findings may be due to differences in the gene pool or have to do with acculturation effects.

McCrae and Terraciano (2005) provide further evidence for the universality of the human trait structure in research carried out in fifty cultures representing six continents. This most recent work has examined not only self-report data, but also peer/acquaintance (3rd person NEO-PI-R questionnaire) reports of the participant. Results showed that the American self-report structure was replicated in most cultures and was recognisable in all cultures. With total congruence coefficients

greater than .90 being generally regarded as indicating good factor replication (Yang et al., 1999), the Nigerian sample was the least congruent overall (.71), followed by the Botswana (.82), Moroccan (.85) and Indian (.89) samples. All remaining 46 samples were congruent with the USA normative sample with total congruence coefficients at or above .90. The most problematic single factor in terms of congruence was Factor O (Openness to Experience); this was also the least reliable factor in terms of internal consistency across cultures (see Section 2.7.2 for further discussion). Although the majority of participants in this research were students, the evidence for universality of personality traits cannot be ignored.

Narayanan, Menon and Levine (1995) also studied the cross-cultural robustness of the FFM. Unique to other studies, their research was carried out in India with 221 university students. Employing an emic strategy, they used the free-descriptor method (in which the pool of items is generated by the participants themselves, thus avoiding experimenter-imposed variables: see John, 1990) as a quantitative method of personality assessment and the critical incident approach (Flanagan, 1954) as a qualitative exploration of personality. Analysis of their data collected from both methodologies "strongly supported the five-factor model, whilst also revealing certain culturally based departures" (p.51). One of these "culturally-based departures" was a sixth dimension, outside of the five major factors of personality, that the authors named "Miscellaneous". It accounted for 4.1% of the variance and included critical incidents involving morality, conservatism and nationalism.

Finally, similarities in the age-related development of personality across cultures have been reported. With a sample of 5085 adolescents and adults in the UK, Germany, Spain, the Czech Republic and Turkey, Costa and McCrae (2001) found that Neuroticism, Extraversion and Openness to Experience declined with age while Agreeableness and Conscientiousness tended to increase. This was partially supported in a Chinese study by Xiu, Wu, Wu and Shui (1996) who found small but significant age effects in a sample of 593 men and women of ages 20-84 using a Chinese version of the NEO-FFI. Neuroticism and Openness to Experience declined with age whereas Agreeableness increased with age.

Small personality-based gender differences across cultures have also been found in a sample of over 23,000 individuals taken from 26 cultures. For example, females tend to score higher on Neuroticism, Warmth, Agreeableness and Openness to Feelings and men tend to score higher on Assertiveness and Openness to Ideas (Costa, Terracciano & McCrae, 2001).

In summary, a large body of research has demonstrated that the FFM has utility outside of the USA, although congruences and similarities may, at times, not be as high as desired. Likewise, there is a possibility that FFM models do not capture the complete depth of human experience. Gender and age-related similarities in profiles across cultures have however provided more evidence for the cross-cultural applicability of the FFM.

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Utility and Validity of Western and Chinese Models and Measures of Personality in Chinese and Western Organisational Contexts