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National differences in personality

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ABSTRACT

Besides establishing national IQ levels, Richard Lynn also started and inspired studies attempting to find out regularities behind the national differences in personality. Recent large-scale collaborative projects involving hundreds of psychologists from about 50 countries allowed for determination of the aggregate national scores of personality for the most popular personality models, including the Big Five. These studies have already revealed several universal and geographically regular patterns in the global personality trait distributions. The area of the study of national differences in personality has arguably matured to a level where it can start to help solving fundamental problems such as the relationship between genes, culture, and personality.

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1. Richard Lynn on national differences in personality

Richard Lynn's illustrious scientific career has taught, especially those who are ready to learn, several lessons including a methodological one. Francis Crick described how Lawrence Bragg defeated him in his first scientific race to find out the structure of haemoglobin: "Whereas I had gotten bogged down, he made rapid progress. He boldly assumed that one could approximate the shape by an ellipsoid – a particularly simple type of distorted sphere... Moreover, he was not disturbed if the data did not exactly fit his model, since it was unlikely that molecule was exactly an ellipsoid. In other words he made bold, simplifying assumptions; looked at as wide range of data as possible; and was critical but not pernickety, as I had been, about the fit between his model and experimental facts... it was an revelation to me as to how to do scientific research and, more important, how not to do it" (Crick, 1990, p. 47).

This description applies equally well to how Richard Lynn has advanced in his research: he always looked for the big picture, never hesitated to make unorthodox assumptions, and was not particularly concerned if experimental facts did not fit exactly, initially at least, with the theoretical predictions. In the result we have some of the boldest explanations ever advanced about individual or group differences.

Richard Lynn is so tightly associated with IQ research that his equally seminal works on personality has been seriously underestimated. For example, his pioneering *Personality and National Character* (Lynn, 1971) has not received the attention it certainly deserves. Even according to the relatively liberal *Google Scholar* this book has been cited only 96 times by the end of September 2010. His more recent paper "National differences for thirty-seven

nations in extraversion, neuroticism, psychoticism and economic, demographic and other correlates" (Lynn & Martin, 1995) has been slightly more lucky, being cited 51 times by journals indexed in the *Web of Science*. Neither is tremendously popular (cited 34 times) his previous paper on a similar subject (Lynn, 1981).

Personality and National Character (1971) is a remarkable achievement, only partly built on the preceding tradition of what was known as moral statistics (Bayatrizi, 2009). This book continues a tradition which was started by André-Michel Guerry, Adolphe Quetelet, Alexander von Oettingen and, of course, Émile Durkheim who looked at the statistics of suicide, divorce, mental health, and abortion as something that could tell us about the moral health of the society. The main idea advanced by this book is that among the advanced nations there are differences in the level of anxiety in the population. The anxiety level manifests itself in various ways, such as the incidence of suicide, mental illness and tobacco consumption. What makes Lynn's approach different from his predecessors is the assumption that largely inherited personality traits, not cultural institutions or acquired social practices, are responsible for the instances of social maladies such as suicide, alcoholism, accidents, hypertension, and smoking. However, all these statistics were indirect indicators of anxiety, not direct measures of personality traits. Only in his later papers the mean scores on extraversion, neuroticism and psychoticism became available for a sufficient number of countries (Lynn & Martin, 1995).

Two observations made by Richard Lynn are turning out to be particularly penetrating. First, he (1981) noticed that nations like Australia, Canada, and the United States, whose populations are predominantly made up of immigrants, tend to have higher Extraversion scores than the European countries from which the emigrants largely came. This intrepid generalization was recently confirmed by elegant studies of immigrants from small islands demonstrating that genetic drift is responsible for a higher level

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of Extraversion and Openness among emigrant populations (Camperio Ciani & Capiluppi, 2011; Camperio Ciani, Capiluppi, Veronese, & Sartori, 2007).

Another observation made by Lynn and Martin (1995) concerned women obtaining higher mean scores than men on Neuroticism scales in all 37 nations where the results of the Eysenck Personality Questionnaire (EPQ) were available. In addition, men scored higher than women on Extraversion in 30 countries and on Psychoticism in 34 countries. As it turned out, these sex differences in the level of personality traits are not only universal but they seem to increase with higher levels of human development including long and healthy life, equal access to knowledge and education, and economic wealth (Costa, Terracciano, & McCrae, 2001; Schmitt, Realo, Voracek, & Allik, 2008).

2. Large-scale cross-cultural studies

Collection of personality data from many cultures is very expensive. There are only two principal ways to collect data from a sufficient number of countries. The first is to put together a popular inventory which will be translated into a large number of languages by enthusiastic colleagues. The Eysencks' EPQ and Costa and McCrae's NEO PI-R are good examples of this relatively slow method of collecting data (Lynn & Martin, 1995; McCrae, 2002; van Hemert, van de Vijver, Poortinga, & Georgas, 2002). Another way is to form an international research consortium, which is held together by the promise that the first two or three papers are co-authored by all those who participate in the consortium, and collect the data. For instance, David Schmitt, who following his mentor David Buss reintroduced this method to a cross-cultural research, was able to collect personality data from 56 countries or territories (Schmitt et al., 2007). Exploiting the same research scheme, McCrae and Terracciano were later able to collect observer-reported personality data and national character ratings from 50 cultures (McCrae, Terracciano, & 78 Members of the Personality Profiles of Cultures Project, 2005; McCrae, Terracciano, & 79 Members of the Personality Profiles of Cultures Project, 2005).

Another important development in research technology is, of course, the widespread use of Internet which allows the collection of huge samples during a relatively short period of time. Perhaps one of the best examples is the BBC Internet study of sexual differences which allows one to observe sex differences in three personality traits – extraversion, agreeableness, and neuroticism – for over 200,000 participants from 53 nations (Lippa, 2010). Although appealing, the self-recruited Internet data seems biased (more educated people are more likely recruited) compared to random sampling (Pullmann, Allik, & Realo, 2009) which may constrain their value (however compare Gosling, Vazire, Srivastava, & John, 2004).

Richard Lynn was among the firsts who noticed regularities in the geographical distribution of intelligence (Lynn, 1997). There are all reasons to suspect that personality traits also demonstrate a systematic geographic pattern of distribution. However, it was much more complicated to find a systematic pattern in the geographic distribution of personality traits. Unlike IQ data, personality traits showed a clear contrast between European and American cultures and Asian and African cultures. The former were higher in extraversion and openness to experience and lower in agreeableness (Allik & McCrae, 2004; Schmitt et al., 2007). Although this pattern of geographic distribution of personality traits is fairly replicable, there are only speculations about their genetic or cultural origin.

In contrast to cross-cultural differences in intelligence (Lynn & Meisenberg, 2010) the mean differences in personality across different countries are rather modest. It seems to be a replicable

pattern that country means have standard deviations equal to about one-third of the magnitude of individual differences within culture (Allik, 2005). This means that variance produced by cross-cultural differences is approximately nine times smaller than what is produced by interindividual variance within each country. One obvious consequence of this observation is that expected convergence between different cross-cultural studies using different personality instruments cannot be very high (Schmitt et al., 2007). What is, however, truly remarkable is that some personality differences are much more reliable than the mean scores themselves. It is not only, as was noticed above, that women in most countries are higher in several traits related to neuroticism, agreeableness, warmth, and openness to feelings, whereas men score higher on scales measuring assertiveness and openness to ideas, but the differences increase systematically with human development – including long and healthy life, equal access to knowledge and education, and economic wealth (Costa et al., 2001; Schmitt et al., 2008). There also seems to be a pervasive difference in how personality of younger and older targets is perceived (the same applies to self-other reports): younger people are thought to be considerably more extraverted and open than older people, and older people are perceived to be more agreeable and conscientious than younger people (Allik, Realo et al., 2009; McCrae, Terracciano, & 78 Members of the Personality Profiles of Cultures Project, 2005). Somewhat surprisingly, there is also a cross-culturally replicable pattern of differences between internal and external perspectives for the Big Five personality traits. People everywhere see themselves as more neurotic and open to experience compared to how they are seen by other people. External observers, on the other hand, generally hold a higher opinion of an individual's conscientiousness than he or she does about him or herself (Allik, Realo et al., 2010).

3. National stereotypes

In everyday life people are not only judging their own or other people's personality. They also have strong opinions about groups of people, most frequently defined by their ethnic or national origin. There are many jokes about ethnic stereotypes. Finns, for instance, are often depicted by their neighbours as having no sense of humour as well as being quiet, taciturn, and slow. "How do you tell a Finnish extravert from a Finnish introvert? The extravert will look at your shoes when he's talking to you – the introvert will look at his own...." What is surprising, these jokes indeed sound very funny because quite often, people have strong opinions about the typical representative of their own or a neighbouring nation.

Most of the previous studies of national stereotypes remained inconclusive since the researchers had no clear idea about how to measure the adequacy of national stereotypes. A real breakthrough came when Antonio Terracciano, Robert R. McCrae and their colleagues decided to measure the correspondence between national stereotypes with the mean ratings of personality across 49 nations (Terracciano et al., 2005). It turned out that the widely held belief that national stereotypes contain a "kernel of truth" (Allport, 1978/1954) is wrong because, with a single exception, the ratings of the national character do not resemble aggregated personality trait ratings in at least 49 countries or territories (Terracciano et al., 2005).

Although using exactly the same instrument for measuring both stereotypes and personality dispositions could improve resemblance between these two types of ratings (Allik, Mõttus & Realo, 2010; Realo et al., 2009), it is clear that opinions about national character are rarely if ever based on statistical averaging of judgements concerning really existing personality dispositions. One of the mechanisms of the stereotype formation is mirroring a

dominant national stereotype in the culture. For example, it seems that Canadians formed their ideas about their national character based almost entirely on the stereotypes of a typical American by a simple inversion (Terracciano et al., 2005). Similarly, there was not much specifically to say about Northern Italians except that they are direct opposites in everything to what is typically believed about Southern Italians (McCrae, Terracciano, Realo, & Allik, 2007a). Needless to say that there were no differences between South and North Italians in their self-ratings. Continuing the examples of the mirror-stereotypes, Estonians, Latvians and Finns appear to form their aggregated self-portraits by mainly making negative images of their culturally and politically dominating neighbour – the Russians (Realo et al., 2009). All these recently collected evidences indicate that the primary role of national stereotypes is not to summarize really existing personality dispositions. The stereotypes rather reflect values and social norms that are shared by the members of a nation, and they may serve the function of maintaining a national identity by constructing stereotypes that reflect beliefs, either true or wrong, about some other nations, or beliefs about socially desirable personality traits (Allik, Mõttus et al., 2009; Allik, Realo et al., 2010).

4. Validity of the country-level mean scores of personality

After Richard Lynn and Tatu Vanhanen published their *IQ and the wealth of nations* (Lynn & Vanhanen, 2002) one of the most serious criticisms was that the mean scores of IQ reported in the book cannot be trusted (for answers to the critique, see Lynn & Vanhanen, 2006). To be true, some of the mean scores required later correction (Lynn & Meisenberg, 2010) but the general validity was not questioned because the scores strongly converged with various studies of educational attainment (Lynn & Mikk, 2009; Rindermann, 2007). The agreement between the Lynn–Vanhanen IQ estimates and educational studies such as PISA and TIMSS is remarkable since their authors usually openly distance from IQ studies. Richard Lynn has always assumed that the mean personality scores collected either with the Eysencks' EPQ or Costa-McCrae's NEO PI-R are at least in the first approximation reliable. Later studies have generally confirmed this assumption (Schmitt et al., 2007).

Since personality questionnaires measure opinions rather than individuals' performance, it gives even more reason to question the validity of the nation-level mean personality scores. Some of the scepticism is based on theoretical arguments (Ashton, 2007; Perugini & Richetin, 2007) accompanied by empirical evidences showing that at least in one personality domain (i.e., Conscientiousness) national mean scores of personality strongly disagree with expected criterion variables (Heine, Buchtel, & Norenzayan, 2008). Heine and colleagues (2008) reanalyzed published data showing that aggregate national scores of self-reported Conscientiousness were, contrary to the authors' expectations, negatively correlated with various country-level behavioural and demographic indicators of Conscientiousness, such as postal workers' speed, accuracy of clocks in public banks, accumulated economic wealth, and life expectancy at birth. Oishi and Roth (2009) expanded the list of contradictory findings by demonstrating that nations with high self-reported Conscientiousness were not less but more corrupt.

A part of the validity criticism can be dismissed on the basis of some simple considerations. For example, proponents who assume that the mean scores are distorted by some kind of social comparison process usually ignore that they demand unrealistic abilities to estimate the average level of personality traits of some reference groups or the whole nations (McCrae, Terracciano, Realo, & Allik, 2007b). Differences between nations may be too small to be

noticed even by the collective wisdom of thousands of everyday raters. Another problem is that the social comparison process may decrease, not increase the predictive validity of personality measures. Although it is rather easy to persuade respondents to think relative to a salient comparison group, this leads to substantial reductions in criterion-related validities such as academic performance, self-reported counterproductive behaviours, and self-reported health outcomes (Credé, Bashshur, & Niehorster, 2010).

When the external criterion variable is based on the behaviour of a small group of people, who form only a small fraction of the total population, the relationship between personality variables could be easily inverted (Mõttus, Allik, & Realo, 2010). For example, the crime rate in the 50 US states is positively related to the mean level of Conscientiousness which is typically characterized as an ability to resist impulses and temptations and a tendency to be organized, strong-willed, and determined (Rentfrow, Gosling, & Potter, 2008). It would be difficult to think that self-discipline and strong character inclines people to commit crimes. It is more likely that very few people living among highly conscientious people find it difficult to meet high standards and more easily lose control over their impulses. Similarly, nobody doubts that people commit suicide mainly because they feel desperately unhappy. However, in countries where more people are generally happy and satisfied with their lives, the suicide rate is higher than in those countries where people tend to feel more miserable (Inglehart, 1990). An explanation for this paradox is that the very small number of people who commit suicide may be mainly those who are not able to cope with the social demand for being happy brought about by the relatively high average level of happiness (Inglehart, 1990).

Finally, it is possible that the personality traits used in predictive validity studies are sometimes too broad and only some of their aspects are related to the expected criterion variable. For example, the relationship to potential criterion variables differed largely across facets of the broad Conscientiousness domain. For several facets, the pattern of relationships to external criteria were consistent with clearly formulated predictions, but only few facets were related to few criteria in an unexpected manner (Mõttus et al., 2010).

Thus, it is premature to claim that the national mean scores of personality are invalid after discovering that some correlations with the criterion variables contradict the common sense or vaguely formulated theoretical expectations. It is more urgent to elaborate on reasonable tactics about how to react to the increasing number of findings that personality instruments used in cross-cultural studies demonstrate, in the best case, structural invariance, but very rarely the full metric invariance (Nye, Roberts, Saucier, & Zhou, 2008; Rossier, Dahourou, & McCrae, 2005).

5. Conclusions

Cross-cultural studies of personality traits involving a large number of countries were launched only recently. Many of these studies were inspired by Richard Lynn's pioneering research and by the sometimes uncomfortable questions he had the courage to ask. The study of national differences in personality have lagged behind similar studies of intelligence, but when influenced by Lynn's prevailing ideas, they have nevertheless reached a satisfying level of sophistication. There are now several replicable regularities, emerging from the truly collaborative efforts of numerous researchers from many countries. This indicates that the study of national differences in personality may soon be ready to answer some of the most fundamental questions of social sciences, such as the relations among genes, culture, and personality. Is culture

shaped by the aggregate personality traits of its members? Can selective migration cause genetic drift which changes the mean level of personality traits in the population? Can acculturation change personality traits?

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