Editorial: The Puzzle of Personality Types

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The empirical study of personality differences is sometimes like a rough ride through a desert without orientation (lacking constructs, established methods, and replicable empirical findings), sometimes like an expedition into a jungle (facing an inextricable net of many similar but non-identical constructs, diverse established methods, and contradictory findings), and sometimes like a puzzle (trying to put together apparently incoherent pieces based on established constructs and methods). The current quest for personality types is of the last kind.

This Special Issue builds upon the *First Expert Workshop on Personality Psychology: Personality Structure and Development Across the Life-Span*, 29 October–1 November 2000, at Ghent, Belgium, directed by Ivan Mervielde and Paul T. Costa Jr. This workshop was the first of a series of workshops sponsored by the European Association for Personality Psychology. As it turned out, the utility and proper operationalization of personality types became a hotly debated issue, and there was a general recognition that the puzzle of personality types was far from being solved. Therefore, when I was asked to edit a Special Issue for the *European Journal of Personality*, I happily took the opportunity to devote this Special Issue to the puzzle of personality types. And I was particularly happy that both Avshalom Caspi and Wim Hofstee, who had already participated in the Expert Workshop, agreed to coedit the Special Issue. They not only reviewed all contributions but also provided valuable comments about the organization of the Special Issue in general. In addition, Wim Hofstee contributed a trenchant critique of broadly shared but questionable assumptions underlying current personality assessment methodology.

Personality can be defined as the *intra*individual organization of experience and behaviour. Thus, personality types refer to people with similar intraindividual organizations of their experience and behaviour. However, empirical research over the last 50 years has treated personality nearly exclusively from a variable-centred perspective that culminated (or dead-ended, as critics such as J. Block, 1995, put it) in the Five-Factor Model of personality description.

Throughout the history of personality psychology, it has been pointed out that such a variable-centred approach may miss an important aspect of personality, the configuration of traits *within* an individual (Stern, 1911; Allport, 1937; Block, 1971; Magnusson, 1988; Mervielde & Asendorpf, 2000). For a long time, J. H. Block and J. Block (1980) swam

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against the current of the variable-centred mainstream. They showed how a person-centred approach based on intraindividual Q-sort ratings can be successfully implemented in the longitudinal study of personality development.

The payoff of this groundbreaking work came slowly, but it came. During the last decade there has been an upsurge of interest in a person-centred approach to personality (Asendorpf, Borkenau, Ostendorf, & van Aken, 2001; Asendorpf & van Aken, 1999; Caspi & Silva, 1995; Pulkkinen, 1996; York & John, 1992). In this research there is evidence for at least three different personality types that are found again and again in studies ranging from behavioural ratings of 3-year-old New Zealand children to 27-year-old Finnish adults. A large group of *resilients*, or adjusted people, is contrasted with two major less adjusted types. *Overcontrollers* are characterized by high impulse control, high anxiety, and low aggressiveness, and *undercontrollers* are characterized by low impulse control, low trustworthiness, and open aggressiveness (Caspi, 1998).

The consistency of personality types across different studies is however far from being perfect. A high consistency cannot be expected because different studies may differ in (i) language, (ii) culture, (iii) selectivity and size of the sample, (iv) instrument of trait assessment, (v) judge (self or others), and (vi) method of deriving types. The idea for this Special Issue was to explore the consistency of personality types more seriously by requiring from each contribution that the types were based on (i) sufficiently large non-clinical samples, (ii) self-ratings on a similar instrument, the NEO-PI(-R) by Costa and McCrae (1989, 1992), and (iii) the same method of deriving replicable types from Big Five profiles through a particular combination of cluster analyses as proposed by Asendorpf et al. (2001).[1] In addition, each contribution could capitalize on particular additional strengths such as (i) exploring subtypes, (ii) including assessments of the Big Five with different instruments, (iii) exploring different methods of replicating types within a study, (iv) conducting Monte Carlo studies for methodological features of the cluster-analytic approach to personality types, and (v) exploring high-risk samples.

Schnabel, Asendorpf, and Ostendorf set the stage by fully replicating the results of Asendorpf et al. (2001) for the NEO-FFI with the NEO-PI-R for similar student-dominated German samples. Again, three and only three replicable types were found: resilients, overcontrollers, and undercontrollers. In addition, they explored replicable subtypes of these three types by deriving two- and three-cluster solutions for these types, and checking their replicability. The results were disappointing; only two subtypes of the largest type (resilients) were found to be replicable.

Boehm, Asendorpf, and Avia found mixed evidence in Spanish samples for the results achieved by Schnabel and colleagues. In a student sample of the same age range, studied by the NEO-PI, they could replicate the findings by Schnabel and colleagues at the type level and even at the subtype level for subtypes that were not replicable within the Schnabel et al. study. This last result suggests that the method proposed by Asendorpf et al. (2001) for replicating (sub)types within studies may underestimate the replicability in smaller samples. Furthermore, Boehm and colleagues could not replicate these findings with a sample from the Spanish general population, which suggests that the heterogeneity of the sample may restrict replicability both within and between studies. Finally, these authors found that the low replicability for the sample from the general population was due to two different but similarly optimal cluster solutions. Such a case is well known in

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[1]The articles in the present Special Issue deviate from the Asendorpf et al. (2001) method in a minor detail of how cross-study cluster consistencies are computed (see Schnabel et al., this Special Issue, for details). This revised procedure slightly increases the consistency of the type classifications across different studies.

the literature on linear optimization, and is often illustrated with a search for the highest peak in an as yet unexplored mountain range. Sometimes there is only one peak, so everybody finally gets there, but sometimes there are two or more peaks of similar height. In such a case, which peak one hits can depend on minor differences in where one started or which way one climbed up.

Barbaranelli could once more replicate with an Italian NEO-PI sample (which was probably biased towards a high educational level) the three types of Asendorpf et al. (2001). In addition, he suggested that the random-split procedure used by Asendorpf et al. (2001) for replicating (sub)types within studies may be less appropriate for smaller samples than a bootstrap procedure. This may be important particularly for the study of subtypes. Because boostrap samples can be easily obtained by widespread statistical software such as EQS or LISREL, this methodological advancement seems promising.

De Fruyt, Mervielde, and Van Leeuwen studied types derived from Big Five profiles in Flemish children (as assessed by the HiPIC) and adolescents (NEO-PI-R). Ironically, the HiPIC types in childhood resembled more the NEO-PI(-R) types for adults in most other studies than their own NEO-PI-R types for adolescents—an inconsistency that is difficult to explain. Furthermore, De Fruyt and others found that, as expected, monozygotic twins were more similar than dizygotic twins with regard to their HiPIC type membership. Also, type membership showed only a low stability over a period of 3 years although the prototypical profiles of the types were highly similar across ages. Finally, the authors replicated with their HiPIC types the finding by Asendorpf et al. (2001) that resilient children were low in both externalizing and internalizing tendencies whereas over-controllers were characterized by internalizing tendencies, and undercontrollers by externalizing tendencies.

Costa, Herbst, McCrae, Samuels, and Ozer found again mixed evidence for the replicability of the types proposed by Asendorpf et al. (2001). They could replicate these types in one large age- and education-heterogeneous sample of adults but not in other, more selective samples, including a large sample of university alumni and two high-risk samples. Furthermore, they critically evaluated various methodological problems with the clustering approach, and presented a 'head-to-head comparison' of the cross-sectional predictive power of the categorical types versus the continuous Big Five variables with regard to various important external variables. Although the types showed moderate predictive validity, they added nothing to the prediction when they were entered in a multiple regression equation after the Big Five variables. It should be noted, though, that this result is less striking than it may seem at a first glance. What it means is that within a variable-centred prediction, the prediction through linear combinations of types can be fully traced back to the prediction by linear combinations of those variables on which the types are based.

The results for NEO-PI(-R) data in non-risk samples on the cross-study consistency of the three personality types proposed by Caspi (1998) and Asendorpf et al. (2001) are summarized in Table 1. All authors generously provided computations of the cross-sample consistency between their cluster solution and the solutions of other contributors. Because there were two agreement coefficients for each pair of samples (two Cohen's kappas; see Schnabel et al., this Special Issue, for an outline of the procedure for assessing cross-sample consistency), the kappas could be cross-checked. All paired kappas were highly similar, and were thus averaged, resulting in Table 1.

Of the seven samples, four samples produced a similar three-cluster solution, with cross-sample kappas ranging from 0.59 to 0.72 and a median of 0.64. The solutions of the

Table 1.   Consistency between the three-cluster solutions from NEO-PI(-R) studies of non-risk samples

Sample	Spanish students	Spanish general population	Italian	Flemish	US unselected	US alumni
German	**0.65**	0.48	0.72	0.48	**0.69**	0.24
Spanish students		**0.66**	**0.61**	0.53	**0.64**	0.27
Spanish general population			0.35	0.58	0.47	0.50
Italian				0.40	0.59	0.43
Flemish					0.45	0.55
US unselected						0.22

Note: Kappas greater than or equal to 0.60 in boldface. The US data were not controlled for age.

other three samples were clearly different from this solution, and showed no consistency between them. Thus, the puzzle was only partly solved.

Before more effort is put in solving the puzzle with traditional methods, it may be currently more advisable to reflect on the adequacy of these methods. This is exactly what Wim Hofstee, who was invited to serve as a discussant for the Special Issue, did. His contribution went far beyond a standard commentary on the five empirical papers. He not only provided a trenchant critique of current variable- and person-centred approaches to personality, but also proposed a new approach to personality assessment that is balanced with regard to type and trait approaches to personality, and is radical at the same time. It is radical because it questions in a methodologically sound way everything that most scholars of personality take for granted: that individual scores should be compared either inter- or intraindividually before they can be interpreted, that they can be standardized inter- or intraindividually without hesitation, and that R- or Q-correlations are 'natural' indices of association.

Hofstee proposes a different approach to personality assessment that is strictly based on raw scores and on comparisons between raw scores and absolute reference points such as the midpoint of a response scale. From this methodological perspective, he makes some suggestion on how personality types might be identified. Hofstee's approach awaits to be put to empirical test regarding its merits and limits for personality psychology in general, and for finding replicable types and predicting important outcomes from them in particular. I look forward to such tests in the years to come.

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