

REPRINT

Comment

Fundamental Challenges of Contemporary "Personality" Research
Comment on "Personality from a Cognitive-Biological Perspective" by Y. Neuman

Jana Uher^{1,2*}

¹ *The London School of Economics and Political Science, United Kingdom;*

² *Comparative Differential and Personality Psychology, Free University Berlin, Germany*

* Correspondence:

The London School of Economics and Political Science, Department of Psychology,
St Clements Building, Houghton Street, London WC2A 2AE, United Kingdom
e-mail: mail@janauher.com

The growing interest in "personality" from scientists of ever more diverse fields demands conceptual integrations—and reveals fundamental challenges. For what *is* "personality" given that "it" is explored in humans and nonhuman species, that people encode "it" in their everyday language, scientists seek "it" in the brain and study "it" primarily with rating scales?

Neuman's review [1] exemplifies that interdisciplinary integrations presuppose critical reflections on the metatheories and methodologies applied. The Transdisciplinary Philosophy-of-Science Paradigm for Research on Individuals (TPS-Paradigm) elaborated these foundations [2]. It showed that all definitions of "personality" contain the idea of individual-specificity but they differ in the particular phenomena being considered [3]. To be specific to an individual, patterns must differ between individuals over some time. But differential and temporal patterns cannot be directly perceived. Individual-specificity is an idea, an abstract concept constructed by both lay people and scientists to denote regularities noticed in repeated observations of many individuals over time [4]. Deciding which particular phenomena to consider requires philosophical presuppositions. Can psychical phenomena be reduced to "neural substrate" as Neuman [1] proposed, implying monistic ideas? Reductionism also overlooks that, in nonliving and living systems, on all levels of organisation new properties emerge that cannot be predicted from their constituting elements [5, 6, 7].

Lack of differentiation between phenomena of different kind is a major obstacle to progress in psychology as it entails applications of inappropriate methodologies. Building on epistemological complementarity [8], the TPS-Paradigm differentiates morphology, physiology, behaviour, psyche and other kinds of phenomena on the basis of their spatial and temporal properties. Their particular constellations of these properties entail that isomorphisms between phenomena of different kind cannot be assumed. These spatio-temporal properties also determine unequivocally which methodologies are appropriate to explore a given kind of phenomenon, whether it can be scientifically quantified and how [2, 9].

"Personality" research is afflicted with particular fallacies, many of which derive from mistaking linguistic abstractions [10] for concrete entities. Specifically, abstract words and rating items are often assumed to directly reflect the phenomena that they describe, but they can reflect only the raters' ideas and beliefs about these phenomena [11, 12]. These fallacies and serious methodological deficiencies in widely used standardised questionnaire methods have so far prevented researchers from comprehensive taxonomic explorations of individual-specificity in most kinds of phenomena studied as "personality" (e.g., experiencing, behaviour) [13]. As individual-specific patterns cannot be directly perceived, these reifications [14] imply that the causes of individual-specificity in phenomena that are directly perceptible (e.g., behaviour) are located somewhere inside the individual as reflected in the Allportian concept of traits used by Neuman [1]. This misleads researchers to confuse structures of between-individual differences for within-individual structures, producing

inherently circular explanations [3,15]. Between-individual analyses (variable- and individual-oriented) are needed to identify individual-specificity, but they fail to explore individual-specific functioning and development. The TPS-Paradigm highlights that, rather than one universal "personality" model as often assumed, models of different kind must be established to taxonomise individual-specific compositional structures and process structures in individuals' averages and their variabilities in each given kind of phenomenon, and it therefore provides comprehensive metatheoretical and methodological frameworks [13, 15].

Overcoming the fallacies of the field and establishing comprehensive taxonomies of individual-specificity on the basis of appropriate methodologies will open up new avenues for exploring and explaining the origins and causes of "personality".

Keywords:

personality taxonomy; Transdisciplinary Philosophy-of-Science Paradigm for Research on Individuals (TPS-Paradigm); between-individual/ within-individual differences; Five Factor Model; Big Five Model; standardised questionnaire methods;

Acknowledgements:

The author acknowledges funding from the Deutsche Forschungsgemeinschaft DFG (UH249/1-1).

References:

- [1] Neuman Y. Personality from a cognitive-biological perspective. *Physics of Life Reviews* 2014, this issue. DOI: 10.1016/j.plrev.2014.09.002.
- [2] Uher J. Conceiving "personality": Psychologists' challenges and basic fundamentals of the Transdisciplinary Philosophy-of-Science Paradigm for Research on Individuals. *Integrative Psychological and Behavioral Science* 2014. DOI: 10.1007/s12124-014-9283-1.
- [3] Uher J. Personality psychology: Lexical approaches, assessment methods, and trait concepts reveal only half of the story—Why it is time for a paradigm shift. *Integrative Psychological and Behavioral Science* 2013; 47:1-55.
- [4] Uher J. Individual behavioral phenotypes: An integrative meta-theoretical framework. Why 'behavioral syndromes' are not analogues of 'personality'. *Developmental Psychobiology* 2011; 53:521–548.
- [5] Caprara F. *The web of life: A new scientific understanding of living systems*. New York, NY: Anchor Books.1996.
- [6] Mayr E. *Toward a new philosophy of biology: Observations of an evolutionist*. Cambridge, MA: Harvard University Press.1988.
- [7] Rothschuh K. E. *Theorie des Organismus*. Bios – Psyche – Pathos (2. erw. Aufl.). München: Urban & Schwarzenberg.1963.
- [8] Bohr N. Causality and complementarity. *Philosophy and Science* 1937; 4:289-298.
- [9] Uher J. Agency enabled by the Psyche: Explorations using the Transdisciplinary Philosophy-of-Science Paradigm for Research on Individuals. *Annals of Theoretical Psychology* 2015; 12:177-228. doi:10.1007/978-3-319-10130-9-13.
- [10] Neuman Y, Turney PD, Cohen Y. How language enables abstraction: A study in computational cultural psychology. *Integrative Psychological and Behavioral Science* 2012; 46:129-145.
- [11] Uher J, Werner CS, Gosselt K. From observations of individual behaviour to social representations of personality: Developmental pathways, attribution biases, and limitations of questionnaire methods. *Journal of Research in Personality* 2013; 47:647–667.
- [12] Ogden CK. *Bentham's theory of fictions*. New York: Harcourt Brace.1932.
- [13] Uher J. Developing "personality" taxonomies: Metatheoretical and methodological rationales underlying selection approaches, methods of data generation and reduction principles. *Integrative Psychological and Behavioral Science* 2014. DOI: 10.1007/s12124-014-9280-4.
- [14] Whitehead AN. *Process and reality*. New York: Harper.1929.
- [15] Uher J. Interpreting "personality" taxonomies: Why previous models cannot capture individual-specific experiencing, behaviour, functioning and development. Major taxonomic tasks still lay ahead. *Integrative Psychological and Behavioral Science* 2014. DOI: 10.1007/s12124-014-9281-3.