

naive observers, coded by expert observers, and as reconstructed by the subjects themselves in videotape reconstruction tasks.

A comparison of the behavioral expression of inhibition in children and university students revealed a high continuity in terms of specific behaviors associated with inhibition.

The finding that inhibition toward strangers and social-evaluative inhibition can be distinguished both among preschool children and among university students was interpreted in terms of a final common pathway model: shy behavior is a final common pathway to at least two different kinds of inhibiting processes.

At a more general level, the findings of this book are discussed with reference to four chronic problems of personality psychology: the consistency of personality differences across situations, the continuity of personality dimensions over age and the stability of personality differences across age, the coherence of different measures of the same underlying personality dimension, and the problem of nomothetic versus idiographic approaches to personality.

**No. 119** Borkenau, P., & Ostendorf, F. (1989). Investigations of the five-factor model of personality and some instruments for its assessment. [Untersuchungen zum Fünf-Faktoren Modell der Persönlichkeit und seiner diagnostischen Erfassung.] *Zeitschrift für Differentielle und Diagnostische Psychologie*, 10, 239–251. <38 Ref., 8 Tab.>

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Although a five-factor model of personality is now widely accepted (Digman, 1990), there is no German personality inventory available that measures these factors. We investigated:

- 1) whether the five factors can also be identified by questionnaires;
- 2) whether the same factors are identified by questionnaires, by self-ratings on adjective scales, and by peer ratings on adjective scales;
- 3) whether targets and knowledgeable informants agree on their descriptions of individual persons with respect to the five dimensions;
- 4) whether Costa and McCrae's *NEO-Personality Inventory* provides marker variables for the five factors, and
- 5) whether the single facets of the NEO-PI conform to the NEO-model as suggested by Costa and McCrae.

We translated the NEO-PI into German and administered it to a sample of 300 subjects, together with German versions of Jackson's *Personality Research Form* and the *Eysenck Personality Inventory*. Moreover, the subjects were administered the FPI-R (*Freiburg Personality Inventory*, a multidimensional personality questionnaire) and 62 adjective rating scales. In addition, subjects were described on the same adjective scales by three acquaintances under the experimenter's supervision. Forty-two of these adjective scales referred to the constructs measured by the PRF

(three for each of the 14 constructs), and 20 referred to the five-factor model of personality (four for each of the five factors).

The five factors were successfully established in the questionnaire domain: A factor analysis of the 30 scales suggested the extraction of five factors, and the NEO scales had loadings of .81, .83, .67, .77, and .70 on these. Thus, the factor analysis of a heterogeneous pool of questionnaire scales yielded the "Big Five." Neuroticism was not well represented in the PRF, however, whereas "Openness to Experience" was not well represented in the FPI-R. A factor analysis of the informants' ratings also yielded the "Big Five." But on the factor conceptualized as "Openness to Experience," the highest loadings were found for *need for achievement* and *need for understanding*. This suggests an interpretation of this factor as being related to intellect. Among the self-ratings on adjective scales, the "Big Five" were least clearly identified. But when Tucker's coefficient of factor congruence was applied, strong factor correspondence were obtained for target-rotated factors between self- and informants' ratings.

A multitrait-multimethod analysis of the factor scores yielded correlations above .70 between corresponding factor scores, which were derived from questionnaires and self-ratings on adjectives. Factor scores based on the informants' ratings, however, produced lower, ranging from .22 to .59. This finding reflects some agreement as well as some disagreement among raters concerning the personality of individual target persons. Finally, the suggested facet structure of the NEO-model was not confirmed in the present study.

The results lend additional support to the reliability of the five-factor model across instruments and observers. Moreover, the German version of the NEO-PI provides marker variables for the five factors and is therefore useful to assess individual subjects on these factors. Because the NEO-model was not confirmed by the findings, however, a short version of the NEO-PI that yields only five scores per subject may be more appropriate. We experimented successfully with such an abbreviated version of the NEO-PI. These analyses are reported elsewhere (Borkenau & Ostendorf, in press).

Finally, it was demonstrated that the "Big Five" are robust across instruments and observers. It is obviously another problem whether the "Big Five" reflect source traits of personality or whether they reflect the most important dimensions that underly the perception of individual differences.

## References

- Borkenau, P., & Ostendorf, F. (in press). Ein Fragebogen zur Erfassung fünf robuster Persönlichkeitsfaktoren. *Diagnostica*.
- Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*, 41, 417-440.