

# Same but different? Measurement invariance of a Big Five short scale across multiple indicators of socioeconomic status

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Socioeconomic status (SES) is attracting increasing interest of psychologists as a relevant contextual factor predicting psychological constructs such as Big Five personality. Invariant measurement of the Big Five across socio-economic groups bears relevance for mean comparisons and adequate interpretation of associations and is particular relevance in representative population samples that are socio-economically diverse. Previous evidence for the full Big Five Inventory (BFI) indicated a lack of measurement invariance (MI) across respondents' SES for every Big Five dimension except Agreeableness. The current study (N=16,298) investigated the MI of the short version BFI-S used in the German Socio-Economic Panel (SOEP) across five indicators of socioeconomic status including cultural capital. MI was investigated employing multigroup CFAs as well as item-level analysis using the EFA-based aligned exploratory SEM (AESEM, Asparouhov & Muthén, 2023) approach. Scalar non-invariance was detected for Openness and Neuroticism across all five SES indicators, and across at least one indicator for the other three Big Five dimensions. AESEM identified items for Openness, Neuroticism, and Extraversion as main sources of non-invariance. These results can be relevant for adequate modeling of the Big Five in diverse samples and demonstrate the utility of alignment-based approaches for diagnosing and interpreting non-invariance.

Keywords: Measurement invariance, Big Five, SES; ESEM; alignment