

Experimental Validation of Model-Based Identification of Careless and Insufficient Effort Responding

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Self-report surveys often suffer from careless and insufficient effort responding (C/IER), which refers to responses provided without paying attention to the items' content. Mixture modeling approaches are promising tools to assess C/IER by means of latent class variables. However, evidence for the validity of interpreting the latent class variable as C/IER is still pending. To shed more light on this issue, this paper presents the results of a pre-registered survey experiment. Specifically, we examine the ability of a recently developed mixture item response theory model (Uglandova, Nagy, & Ulitzsch, in preparation) to detect C/IER in self-report measures of dark personality traits. We evaluated two validity arguments: the relationships of the latent class (1) with experimentally manipulated survey conditions and (2) with alternative indicators of C/IER. Experimental conditions were designed to evoke or prevent C/IER by manipulating the instructions, the presence of cognitively demanding tasks, and the number of preceding items. Alternative indicators of C/IER were attention check items, item content recognition tasks, and self-reported C/IER. Using the bias-adjusted three-step approach to relate latent class membership to external variables we found that (a) respondents in the evoking C/IER condition were more likely to be assigned to the C/IER class than respondents in the preventing condition, and (b) respondents assigned to the C/IER class exhibited lower performance on all alternative indicators of C/IER than those in the attentive class. Overall, these results were consistent with our pre-registered hypotheses, providing validity arguments to support interpreting the latent class variable as representing C/IER.

Primary authors: UGLANOVA, Irina (Leibniz Institute for Science and Mathematics Education); NAGY, Gabriel; ULITZSCH, Esther (University of Oslo)

Presenters: UGLANOVA, Irina (Leibniz Institute for Science and Mathematics Education); NAGY, Gabriel; ULITZSCH, Esther (University of Oslo)

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