THE AGREEMENT BETWEEN IPSATIVE AND NORMATIVE QUESTIONNAIRES USING COMPOSITIONAL DATA ANALYSIS TECHNIQUES

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1 Introduction

The main instrument used in psychological measurement is the self-report questionnaire. One of its major drawbacks however is its susceptibility to response biases. A known strategy to control these biases has been the use of so-called ipsative items. Ipsative items are items that require the respondent to make between-scale comparisons within each item. The selected option determines to which scale the weight of the answer is attributed. Consequently in questionnaires only consisting of ipsative items every respondent is allotted an equal amount, i.e. the total score, that each can distribute differently over the scales. Therefore this type of response format yields data that can be considered compositional from its inception.

Methodological oriented psychologists have heavily criticized this type of item format, since the resulting data is also marked by the associated unfavourable statistical properties. Nevertheless, clinicians have kept using these questionnaires to their satisfaction. This investigation therefore aims to evaluate both positions and addresses the similarities and differences between the two data collection methods. The ultimate objective is to formulate a guideline when to use which type of item format.

The comparison is based on data obtained with both an ipsative and normative version of three psychological questionnaires, which were administered to 502 first-year students in psychology according to a balanced within-subjects design. Previous research only compared the direct ipsative scale scores with the derived ipsative scale scores. The use of compositional data analysis techniques also enables one to compare derived normative score ratios with direct normative score ratios. The addition of the second comparison not only offers the advantage of a better-balanced research strategy. In principle it also allows for parametric testing in the evaluation.