

Rasch Lectures



In honor of Georg Rasch's 100 years birthday
on
the 21th of September, 2001

Edited by Lina Wøhlk Olsen and Svend Kreiner
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Foreword

By 1961 Rasch had published the dichotomous Rasch model and the extension of this model to the case of several response categories (Rasch, 1961). The majority of the work Rasch did after 1961 on the Rasch models has however never been published, but exist only as an extensive amount of typewritten notes, which Rasch presented at various lectures, seminars and conferences. In honor of Rasch's 100 years birthday some of these unpublished papers are now reprinted. We have chosen to reproduce some of Rasch's writings as they were. Only papers written in English have been included. A sample of Rasch's writings in Danish, including many hundred pages of less formal minutes from his seminars, has not been considered for inclusion in this edition of "Rasch lectures."

The reprinted papers covers some of the aspects of the Rasch models that was a main interest of Rasch. Paper 1 and 2 listed below deals with some of the practical problems regarding estimation and model control for the dichotomous Rasch model. Paper 1 seems to be of particular interest apparently being notes for a Monograph following up on his 1960 book *Probabilistic Models for Some Intelligence and Attainment Tests*. Paper 3, 4 and 5 deals with Specific objectivity, a concept which Rasch introduced in 1963¹ and which remained his main interest ever after. Rasch talked about specific objectivity both in connection with statistical models and as a general principle for making comparisons. It is the later case that is the main topics of the papers 3 and 4. Paper 5 deals with specific objectivity in connection with statistical models, and the only class of discrete models that allows for complete specific objectivity in comparisons is derived. Paper 6 deals with a special kind of model control and hypothesis testing, the point being that the basis for the control of the model is a both necessary and sufficient condition for the model in question.

1 Estimation of Parameters and Control of the Model for Two Response Categories. Not dated

2 Combinatorial Problems in A Class of Statistical Models. Colloquium, Aarhus, August 1–10, 1962

¹The concept of specific objectivity appears for the first time in a lecture Rasch gave in elementary statistics when he became Professor in statistics, namely, in danish, *Referat af professor G. Rasch's forelæsninger over statistikkens teori. Mlingsmodeller*. af Ulf Christiansen. Universitetets Statistiske Institut. 1962-63. Dupl. pp. 97 + pp. 33 tab. og fig, off-set trykt udgave 1966.

- 3 On Objectivity and Models for Measuring. Not dated
- 4 An Informal Report on a Theory of Objectivity in Comparisons. Psychological measurement theory, Proceedings of the NUIFFIC International summer Session in Science at "Het Oude Hof" Den Haag. Juli 14–28, 1966. Leiden 1967.
- 5 A Mathematical Theory of Objectivity and its Consequences for Model Construction. Paper presented at the European Meeting on Statistics, Econometrics and Managements Science, Amsterdam 2–7 september 1968
- 6 On Objectivity and Specificity of the Probabilistic Basis for Testing. Not dated

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Rasch, G. (1961). On general laws and the meaning of measurement in psychology, pp. 321-334 in Proceedings of the Fourth Berkeley Symposium on Mathematical Statistics and Probability, IV. Berkeley, California: University of California Press. Available free from Project Euclid.