senck argues that this suggests the genetic superiority of the European. Here he gives entirely too much credit to genetics. For example, Lemos found that on conservation of quantity, 53% of the part aboriginals and only 12% of the full aboriginals passed. Even with very high heritability for conservation of quantity, given the small degree of race admixture, a difference of this magnitude is far beyond what one would expect if genes alone were responsible.

The book is dominated by a seductively Social Darwinist perspective. Nowhere are there currently depressed groups who give evidence of genetic intellectual superiority. One is reminded of Karl Pearson's (1925) comments after comparing teacher's ratings on intelligence of immigrant Jewish children with British schoolchildren. Besides finding the Jewish children dirtier, he concluded that the ". . . alien Jewish population is somewhat inferior physically and mentally to the native population." He then suggested that only immigrants demonstrating 25% superiority to native British be permitted entry into the country. Needless to say, there is nothing negative about Jews in Eysenck's book, but one wonders whether similar premature accusations have been applied to the Negroes.

FOR those interested in reading on this topic, Jensen's monograph is to be preferred. Eysenck's book covers much the same territory, and what is added is less judiciously chosen. There are two excellent reviews of Eysenck's book that have already appeared (Atkinson, *Race*, 1972; Scarr-Salapatek, *Science*, 1971), which the content of this review is meant to complement.

# Psychometric Methods in the Study of Meaning

**Samuel Fillenbaum** and **Amnon Rapoport**

***Structures in the Subjective Lexicon.*** New York: Academic Press, 1971
Pp. viii + 266. $11.50.

*Reviewed by* WILLEM J. M. LEVELT

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THIS experimental study has a double objective. In terms of *substance* it aims at discovering and representing structural properties of lexical meaning on the basis of similarity judgments. From the *methodological* point of view it is concerned with developing and validating techniques for gathering and analyzing similarity data and relating these to substantive psychological theory. The latter concern gives the book a distinctly psychometric flavor. According to the authors, the study should be specifically pertinent to psychologists, anthropologists, and linguists interested in the empirical study of semantic structures.

In an introductory chapter they present their three main data gathering techniques. The first, Rapoport's (earlier) invention, is called *tree construction:* the subject is required to 'build trees' by successively connecting the words in a set on the basis of meaning similarity. The other two techniques are George Miller's *sorting method,* and the *complete rank-ordering* of all pairs of words according to within-pair similarity of meaning. This chapter is followed by one on the methodology of data analysis, which is excellent but so compact that it will initially deter most anthropologists and linguists and many psychologists with little background in psychometrics. The chapter contains a fundamental analysis of some statistical properties of graphs, and it treats statistical issues in multidimensional scaling and cluster analysis.

In the next nine chapters these techniques of data gathering and analysis are applied to a wide variety of lexical domains: color names, kinship terms, pronouns, emotion names, prepositions, conjunctions, HAVE-verbs, verbs of judging and good-bad terms. A general assessment is given in a final chapter.

From the substantive point of view the main trend in the findings seems to be the following: For lexical domains for which there exists substantive theory already, similarity experiments can add new insights; but, where theory is lacking, the methods are not very helpful as mere discovery procedures. Examples of the former are kinship terms and pronouns. Instances of the latter are emotion names and good-bad terms.

In the case of kinship terms the authors assemble convincing evidence for one theory (Romney and D'Andrade) as against another (Wallace and Atkins). For pronouns their findings sub-