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# PSYCHOLOGICAL REALITY IN PHONOLOGY

*A theoretical study*

PER LINELL

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## *Prologue*

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The fundamental insights of the pioneers of modern phonology have largely been lost. (Chomsky 1964: 110)

The present study is the result of work in the theory of phonology pursued by myself from about 1971 through 1977.<sup>1</sup> My intention during the last few years has been to produce a revised version of my doctoral dissertation (Linell 1974a). However, this work has stretched out for more than three years, mainly because other duties have prevented me from indulging in it. The book that now appears is in fact almost entirely a new work, though it is of course based upon my thesis (as well as on later works: Linell 1974b, 1976a,b, 1977a,b).

To place this study in a proper perspective I would like to point out a few things about the scholarly tradition to which it belongs. My first linguistic training was in structuralist linguistics. In the late 1960s I became heavily influenced by generative transformational grammar, one reason being that this kind of process-based structuralism seemed descriptively superior to most variants of earlier item-and-arrangement grammars. But much more important was the fact that Chomskyan grammar promised to be more than merely an elegant systematization of linguistic data; it also aimed at providing a theory of covert psychological realities, i.e. the fluent speaker–listener’s actual mental organization of his linguistic knowledge. This goal increased the power and relevance of linguistic theory immensely; linguistics would become much more important – in fact indispensable – for some branches of psychology, anthropology, sociology, language teaching, phonetics, aphasiology etc. However, over the years it became increasingly obvious that orthodox Chomskyan grammar was an almost complete failure in this respect. Though the theory has changed over time, most people in the field have

<sup>1</sup> The typescript of this book was completed in June 1977. A few corrections were made in April 1978.

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become convinced that all variants of Chomskyan generative grammar are psychologically invalid, for a number of reasons. Steinberg (1975) has characterized the history of Chomskyan theory (up to the beginning of the 1970s) as that of a movement from formalism to claims of mentalism which actually turned out to be psychologically invalid (for quite fundamental reasons). Thus, the original impetus for me to inquire into the causes why Chomskyan theory failed to provide a psychologically plausible theory was my constantly growing dissatisfaction with the overly formalistic and 'autonomous-linguistic' approach practised by generativists.<sup>2</sup> This experience has apparently been shared with many other scholars. Particularly Derwing's (1973) work has a close affinity with mine. Both Derwing (1973) and Linell (1974a) deal with generative phonology, and both argue that the inadequacies of this theory should be sought among its most fundamental assumptions.<sup>3</sup> Thus, I cannot agree with those numerous generativists who have argued that many specific analyses made in works such as Chomsky & Halle (1968) may be misguided or even absurd but that the generative (meta) theory is basically sound.

The generative goal of striving for psychological validity is a laudable one. Thus, I would maintain that this goal defines one out of several other important lines of linguistic research but that the generative means applied in the attempts to solve the problems involved are extremely unfruitful and misguided. On the other hand, one must be very modest in advancing alternative theories in this area. For one thing, very little can be said about psychological reality with a reasonable degree of certainty and confidence. One reason is the serious lack of relevant and reliable data bearing on the problems. Therefore, any proposals or claims made in this work have to be regarded as preliminary. Basically, I can only argue that they seem at least psychologically and/or behaviorally interpretable and may stand a chance of being true.

Furthermore, very little of what is said in this work derives primarily from original work by myself. Rather, I rely very heavily on insights achieved in traditional and common-sense approaches to phonology as well as in structuralist phonology and variants of generative phonology. The fundamental ideas are quite traditional and

<sup>2</sup> I myself made some generative studies of Swedish phonology and morphology (Linell 1972, 1973a,b).

<sup>3</sup> Cf. also Botha 1971, 1973; Itkonen 1974; Ringen 1975 among other works.

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have, in some cases, also been argued by recent 'natural' (generative) phonologists. My contribution mainly consists in trying to provide a reasonable synthesis of some of these ideas.

The title of this book is perhaps too wide, since there are many fundamental problems of phonology that I will not deal with at all. Basically, I will focus on the nature of phonological forms and phonological rules. Thus, nothing will be said on possible inventories of phonological units (segments or prosodemes) (cf. for example, such works as Hockett 1955; Trubetzkoy 1958), or on phonetic features (e.g. Jakobson, Fant & Halle 1952; Ladefoged 1971a) and their hierarchies (e.g. Drachman 1977). Also, in dealing with phonological forms and rules I will concentrate almost entirely on segmental phonology.

Relative to Linell (1974a) this work represents a shift of emphasis from a critique of generative phonology to somewhat more constructive proposals for a more adequate phonological theory. However, I will frequently contrast these latter proposals with those of *orthodox generative phonology* (henceforth OGPh), i.e. the kind of theory and practice represented by works such as Chomsky & Halle (1968), Schane (1968) and others, and a few chapters (12, 13) will deal almost entirely with OGPh argumentation. It should also be pointed out that criticisms of course also apply to other (generative or structuralist) phonological theories in so far as they share features with OGPh. I have, however, made no attempt to determine the extent to which OGPh overlaps with other theories. It is also beyond the scope of this study to trace the often rich history of the various proposals to be discussed. Interested readers may consult the excellent survey by Fischer-Jørgensen (1975).

As I have already pointed out, this work builds on the insights of an unusually great number of scholars. I hope that my references make at least partly clear the extent to which I build on the written works of others. It is more difficult to do justice to those people whose insights I have profited from in many direct discussions. Plainly, it is impossible to mention all these people here. Some, however, deserve special thanks.

Sven Öhman is beyond any doubt the one who has influenced me most during my graduate studies and also afterwards. He has been greatly inspiring and generous in letting me profit from literally countless ideas and insights propounded in teaching as well as private discussions. Some of the most fundamental points of this book originally derive from his suggestions. Obviously, I have not been able to develop all these ideas in the ways Sven would have liked. Neither he

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nor anyone else should be blamed for the errors I have made.

Secondly, I would like to thank Jens Allwood and Jan Anward for a great many valuable discussions which have considerably promoted my understanding of many linguistic problems. Among many others who have helped and influenced me, Raimo Anttila, W. U. Dressler, Håkan Eriksson, Greg Iverson and Fred Karlsson deserve special mention. Professor John Trim read my manuscript and made many valuable suggestions for revision. I also thank Annika Axelson for typing several manuscripts of mine.

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