CHAPTER 9

The Structure of Idealization in Noam Chomsky’s Generativist Theory

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Abstract

The early work of Noam Chomsky has been described by Leszek Nowak as the “idealization turn in linguistics” (Nowak 1971; 1976; 2000). Nowak claims that only after Chomsky has linguistics become a mature science. Prior to Chomsky, structuralist distributivism had focussed mainly on linguistic data gathering and on the properties of particular languages. Along with the introduction of the concept of linguistic competence, Noam Chomsky set forth idealized models to linguistics. This paper further develops Nowak’s analysis on Chomsky’s work, proposing a description of the structure of idealization in Chomsky’s Generativist Theory. The paper reconstructs – in terms of the Idealizational Theory of Science – the essential structures underlying Chomsky’s theory. I also put forward the claim that the hierarchy of factors described by Chomsky determines the process of concretization in the Generativist Theory. This hierarchy also shapes current research methods in generative linguistics.

1 Introduction

The aim of this article is to propose a new reconstruction of Noam Chomsky’s linguistic work based on reconstruction formulated by Leszek Nowak. I assume the Idealizational Theory of Science (henceforth: ITS), allowing for expanded analysis of the internal structure of Chomskyan theory. As a result, the essential structure of Generative Grammar (henceforth: GG) is reconstructed.

Laws and theories in science do not aim at reflecting the world’s phenomena with the highest accuracy. They rather express a certain system of a researcher’s beliefs and observations resulting in a complex hierarchy of observed factors. This claim is the source of the Idealizational Theory of Science (Nowak, 1970; 1971; 1974; 1977; 1980). At the center of Nowak’s approach lies the idea of the gradual processes of idealization and concretization. In Nancy Cartwright’s words, Nowak’s idealization is about “how to get from an abstract law to the concrete laws that make up its phenomenal content” (Cartwright 1989, p. 197).

Cartwright (1983) claimed that the laws of physics lie. Nevertheless, physicists are not the only scientists who can be suspected of lying. The laws of
Chomskyan linguistics also “lie”, in Cartwright’s sense. By “lying” we mean here idealization – an attempt to simplify the picture of the phenomenon under investigation, by removing the influence of disturbing factors. This method has been known in science since Galileo. Idealization in Cartwright’s sense is a process which precedes the formulation of a scientific law:

\[ \text{In idealization we start with a concrete object and we mentally rearrange some of its inconvenient features – some of its specific properties – before we try to write down a law for it.} \]

\textit{Cartwright 1989, p. 187}

This article presents how the method of idealization and gradual concretization, as described by Leszek Nowak, can be used in an analysis of Chomskyan linguistics, and can provide new explanations for the changes which generativist theory has undergone. Even though some elements of Chomskyan linguistics have changed over the years, the essential structure of the theory seem to have survived in its original form. What constitutes this essential structure? What is the general methodological nature of Noam Chomsky’s linguistic theory? Which idealization and concretization procedures were used by him? These questions have not been answered yet. The history of linguistics shows us, that the issue of gradual idealization as an internal structure of Chomskyan linguistics seems to be of great importance as Chomsky was the first to challenge the vision of purely empirical linguistics, with no assumptions or idealizations.

2 Leszek Nowak’s Work on Chomskyan Linguistics

Noam Chomsky is a linguist and a philosopher who founded the linguistic orientation named Generativism. The generativist movement has been supported by numerous scholars, and has gone through several significant changes over the years. Yet the basic ideas formulated by Noam Chomsky in the early 1960’s thrive and constitute the methodological and philosophical identity of the current movement.