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THE ORIGINS OF THE CYCLIC PRINCIPLE

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1 Introduction

This paper is about the origins of the cyclic principle of rule application in syntax — origins in two senses: (i) the origins of the cyclic principle constraint in the literature of transformational-generative (TG) syntax, and (ii) the origins of the property of grammars and/or languages that the syntactic constraint seeks to encapsulate.

The outlines of the history of the cyclic principle in the literature have an all too familiar character. The initial characterizations of the principle failed to accomplish the intent of those propounding it: the attempts at explicitly motivating it mostly involved invalid arguments; and when a potentially valid form of argument for it was developed it was rapidly undercut by theoretical revisions; and its ultimate abandonment by most TG linguists had a lot more to do with intellectual fashion and political orthodoxy than factual evidence.

Yet the cyclic principle contains a hint of something real, an imperfect reflection of a true generalization about the character of the syntactic systems humans use. It is that hint of verisimilitude that I will be grasping at in this paper; in this sense the critical review of argumentation below is only a preliminary. I argue in the concluding sections that the grain of truth makes the principle even more general than most linguists have imagined, general enough that it goes beyond the domain of linguistic phenomena.

2 Formulations of the cyclic principle

The cyclic principle is part of the definition of the way in which a set of transformations defines a derivation and thus a structural description for a sentence. Like many ‘definitions’ in generative syntax throughout its history, it has few of the characteristics of definitions in formal theories.

The cyclic principle originates in phonology, with the discovery reported in Chomsky, Halle, & Lekoff (1956) that certain rules of English suprasegmental phonology appear to operate “cyclically to successively more dominant constituents of the surface structure” as Chomsky (1965:29) puts it. Formulations of the analogous principle in syntax are generally quite similar to the one given by Chomsky (1965:143):

Given a generalized Phrase-marker, we construct a transformational derivation by applying the sequence of transformational rules sequentially, “from the bottom up” — that is, applying the sequence of rules to a given configuration only if we have already applied it to all base Phrase-markers embedded in this configuration.
Condition

The term of a condition (1737) is the same as the term of a cause. A condition is a proposition that is true or false. It is a statement that describes a state of affairs or a situation. A condition is said to be satisfied if it is true under the given circumstances. A condition is said to be unsatisfied if it is false under the given circumstances. A condition is said to be vacuous if it is true regardless of the circumstances.

The principal forms of a condition are:

1. Necessary condition: A condition that must be true for a given outcome to occur. For example, if the condition is that it is raining, then the outcome is that the ground is wet.
2. Sufficient condition: A condition that is enough to produce a given outcome. For example, if the condition is that the ground is wet, then the outcome is that it is raining.
3. Equivalent condition: A condition that is both necessary and sufficient. For example, if the condition is that it is raining, then the outcome is that the ground is wet.

The conditions are related by the following principles:

1. If a condition is true, then the outcome is possible.
2. If a condition is false, then the outcome is impossible.
3. If a condition is vacuous, then the outcome is indeterminate.

The conditions are also related by the following theorems:

1. The principle of substitution: If a condition is true, then any proposition that follows from it is also true.
2. The principle of contraposition: If a condition is true, then its contrapositive is also true.
3. The principle of reiteration: If a condition is true, then it is true again.

The conditions are also related by the following rules:

1. The rule of modus ponens: If a condition is true and its conclusion is true, then the conclusion is also true.
2. The rule of modus tollens: If a condition is false and its conclusion is false, then the conclusion is also false.
3. The rule of disjunctive syllogism: If a condition is true and its disjunctive is true, then the disjunctive is also true.

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The question raised in the study is: what is the relationship between the number of NP's and the number of NPs in a text? A possible approach to this question is to analyze the frequency of NP's and NPs in a large corpus of text. This could be done by using statistical methods to identify patterns in the occurrence of these elements. The results of such an analysis could provide insights into the role of NP's and NPs in the structure of a text, and how they contribute to the overall meaning and coherence of the text.

The analysis of NP's and NPs in a text can be approached in different ways. One possible method is to use natural language processing (NLP) techniques to identify and classify these elements. This could involve the use of algorithms that can automatically detect the presence of NP's and NPs in a text, and provide information on their frequency and distribution. Another approach could be to manually analyze a sample of text and identify the patterns and relationships between NP's and NPs.

The relationship between NP's and NPs in a text can be influenced by various factors, such as the genre of the text, the style of writing, and the intended audience. For example, in scientific texts, the use of NP's and NPs may be more frequent due to the need for precise and technical language. In contrast, in more informal texts, such as fiction or literature, the use of NP's and NPs may be less frequent and more varied.

Overall, the analysis of NP's and NPs in a text can provide valuable insights into the structure and meaning of a text, and help to improve our understanding of how language is used in different contexts. This could have practical applications in fields such as language education, text analysis, and natural language processing.
TEND PERIODS to combine with pressures of the life style. This is an agitation and a frustration, which if not properly....

We are here to see by people.

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M. Peranteau et al. (eds.). The Chicago lectures: papers from the relative clause festival, 73–105. Chicago IL: Chicago Linguistic Society.