Robert A. Hall, Jr.: *A Life for Language. A Biographical Memoir of Leonard Bloomfield.* Amsterdam Studies in the Theory and History of Linguistic Science 55. Amsterdam and Philadelphia: Benjamins, 1990. x + 129 pp. Hfl. 55.00.

This book is a welcome addition to the recent publications on Leonard Bloomfield in the same series, 'History of Linguistic Science', under the general editorship of E. F. Konrad Koerner. It complements in particular number 3 (1983) of this series, the reprint of Bloomfield (1983 [1914]), with an introduction by Joseph F. Kess, and number 47, a collection of essays on Bloomfield's life and work, edited by Hall (1987). Both the general editor and the publisher are to be commended for their effort to give Bloom-

field the place in the history of linguistics which he so fully deserves but which the post-1960 generation of linguists has been too reluctant to grant him.

During Bloomfield's lifetime and for some years after his death (he died in 1949 at the age of 62), his greatness was not universally recognized, mainly because there were still many influential linguists around who had not been influenced by him and who opposed many or all of his views. By the mid-1960s, however, it should have become clear to the linguistic world as a whole that all of the contemporary productive work done in theoretical linguistics in North America, and most of that work done in Europe, derived directly from Bloomfield. He had in fact become the one pivotal figure in the development of the field, eclipsing the Saussure-inspired European schools, concentrated mainly in Prague and Copenhagen, and whatever remained of German theoretical linguistics. While this is what the present reviewer has taught his students over the past 25 years, it is still not a willingly recognized fact.

Hall knew Bloomfield personally and holds him in high esteem, both as a scholar and as a person. His liking and admiration for Bloomfield are very evident in this book. He tells his readers about Bloomfield's life and death, including details and anecdotes about his family, his friends and colleagues, and his private ideas. We see a Bloomfield who is totally devoted to his work, a man of absolute integrity, shy and unassuming, but, Hall assures us, of formidable stature. The book reads easily and is informative on many points, while at the same time presenting endearing views of American academic society of the years between 1910 and 1950. The story is well documented, at times perhaps overdocumented (as with the circumstances of Bloomfield's leaving the University of Chicago for Yale University in 1940).

Yet the reader is left with a feeling of incompleteness: Hall fails to show what made Bloomfield such a towering figure or why he is of such immense importance to the development of linguistics in this century. Where matters of academic substance become relevant Hall is precise on less important issues but vague and insecure when it comes to the central questions: there he steps back or oversimplifies. When mentioning the relatively unimportant issue of Bloomfield's favoring the neogrammarian's tenet of the regularity of sound changes, or of his ideas about dialectology or teaching methods, Hall is reasonably specific and precise. But on such central issues as behaviorist versus nonbehaviorist psychology, meaning, or grammar the reader is provided with information that is misleadingly vague and often oversimplified. This is regrettable because the linguistic reader's interest in the man Bloomfield will largely be focused on the way Bloomfield dealt with, and lived with, such important issues.

The notion of tree structure (or 'immediate constituent', IC) analysis as a way of representing the structure of sentences and smaller constructions is of particular interest here. As is commonly recognized, modern linguistics would be unthinkable without this absolutely basic notion. What is less known is that it was Bloomfield who introduced it into theoretical linguistics, first tentatively and without much emphasis (1983 [1914]: 61, 110) but then as an all-pervading notion (1933).

What made Bloomfield see the importance of this idea and exploit it to such an extent is not clear in all details. Wundt must have been a source of inspiration in this respect. The text of Bloomfield (1983: [1914]: 61, 110) strongly suggests that his notion of hierarchically ordered binary or multiple branchings derives from Wundt, who proposed this notion in a very similar context (1880: 53–71, 1900: vol. 2, 320–355, 1901: 71–82). (In the latter Wundt defends the idea, considered less bold in his days than in ours, that binary branching, or hypotaxis, represents a more advanced stage in the development of a language and the cognitive development of its speakers than multiple branching, or parataxis.) Bloomfield may at the same time have been inspired by the practice of 'diagraming', that is, assigning tree structures to sentences, which was then current in American schools. But whatever his source of inspiration, if any, may have been, it was through Bloomfield that the now well known notion of tree diagrams was introduced into theoretical linguistics.

The immediate subsequent question was that of the MOTIVATION of particular tree-structure analyses as against others, and it was in the context of this question that the new theory of generative grammar arose, in the late 1940s, in the work of Zellig Harris (1951) and a few others. Bloomfield himself, apparently, never went beyond an intuitive and probably somewhat introspective motivation for particular IC analyses (in spite of his behavioristic rejection of any notion of mental reality). But the many younger linguists of those days who were taught by him or came under his spell at linguistic meetings, conferences, and summer schools were busy trying to find a methodology for answering that big question. Some, nicknamed the 'God's truth' linguists, sought an answer in introspection as a method to discover a mental reality corresponding to the tree structures. They were realists in the modern sense. Others, mockingly called the 'hocus-pocus' school, were instrumentalists. They insisted on considerations of overall economy of description for the language as a whole, while rejecting any notion of an underlying mental reality that was there to be discovered.

Zellig S. Harris is an exponent of this latter school of thought. He presents (1951) a (strictly behaviorist) method for discovering the simplest overall set of IC analyses for one language. At the very end of the book

(1951: 365–373), having set out his painstaking method of analysis, he presents the notion of 'synthesizing utterances' through generative rules. Those tree structures that are generated by the simplest set of 'synthesizing', that is, generative, rules are then the ones to be preferred. This idea was taken over by N. Chomsky (who, according to the Preface, gave 'much-needed assistance with the manuscript') and further developed. In doing so Chomsky reverted to a nonbehaviorist notion of mental reality and presented the setting up of a generative rule system for the sentences of a language as a theoretical hypothesis, much in the spirit of Karl Popper's hypothetico-deductive method with simple falsification criteria. (In later years Chomsky adopted a philosophy of science that was mainly inspired by Feyerabend.)

It is thus clear that present-day generative grammar, in all its varieties, traces its origins directly to Bloomfield (1933) and the subsequent search for a proper motivation for particular tree-structure analyses. The notion of tree structure is likewise a central ingredient in all work in computational linguistics and AI, whether it concentrates on the generation or on the parsing of sentences. This applies even to formal semantics, which began to blossom after 1970 and derives from logical model theory. What has made this notion so important in computational linguistics, AI, and formal semantics is the fact, never recognized by Bloomfield himself (or, for that matter, by the majority of today's theoretical linguists), that tree structures are ideally suited for the various kinds of computation that figure in these disciplines.

In the book under review there is, regrettably, no mention of even the notion of tree structure, a feature it shares with Kess's introduction to the 1983 edition of Bloomfield (1983 [1914]) and, even more surprisingly, also with all the contributions in Hall (1987). This latter collection contains, besides five contributions on Bloomfield's personality, seven papers on his theoretical stance and fields of study. Two of these deal with Bloomfield's work in historical linguistics, one with Pāṇini's influence on Bloomfield, one with Bloomfield as a dialectologist, one with Bloomfield's work on Tagalog, one with his work on Amerindian languages, and finally, one short and not very accurate paper of less than four pages, by Robert A. Hall, on Bloomfield's semantics. Nothing on the all-pervading notion of tree structure. This is an injustice not only to Bloomfield but also, more importantly, to the history of linguistics.

As has been said, Hall's avoidance of any discussion of all substantial issues of Bloomfield's key role in the development of theoretical linguistics makes for light but somewhat disappointing reading. It also makes for a badly incomplete biographical record. Not a word is to be found on the controversy between the 'God's truth' and the 'hocus-pocus' schools,

which began to rage while Bloomfield was still alive and active. 'God's truth' linguists, such as Pike, Nida, or Longacre, are not mentioned at all. Nor is there any mention of the Summer Institute of Linguistics, even though the linguistics of that institute is heavily inspired by Bloomfield's teaching. The development of generative grammar, through the 'hocus-pocus' school, does receive some attention, but when Chomsky is mentioned there is little more than an expression of deep anger and even moral indignation at this man's actions and influence on the field. Much as one may sympathize with such feelings, the text would have been a great deal more convincing if a clearer and more adequate picture had been provided, albeit only in bare outlines, of the actual issues involved.

In spite of such shortcomings, however, we have here a delightful little book, written by a devoted friend and scholar, a book that this reviewer for one would not want to miss from his shelves.

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References

Bloomfield, Leonard (1933). *Language*. New York: Holt.
—(1983 [1914]). *An Introduction to the Study of Language*, new edition with an introduction by Joseph F. Kess. Amsterdam Studies in the Theory and History of Linguistic Science 3. Amsterdam and Philadelphia: Benjamins.
Hall, Robert A. (ed.) (1987). *Leonard Bloomfield: Essays on his Life and Work*. Amsterdam Studies in the Theory and History of Linguistic Science 47. Amsterdam and Philadelphia: Benjamins.
Harris, Zellig S. (1951). *Methods in Structural Linguistics*. Chicago: Chicago University Press.
Wundt, Wilhelm (1880). *Logik. Eine Untersuchung der Prinzipien der Erkenntnis und der Methoden wissenschaftlicher Forschung*. Stuttgart: Enke.
—(1900). *Volkerpsychologie. Eine Untersuchung der Entwicklungsgesetze von Sprache. Mythus und Sitte*, part 1: *Die Sprache*, 2 vols. Leipzig: Englemann.
—(1901). *Sprachgeschichte und Sprachpsychologie*. Leipzig: Engelmann.