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Wundt and Bloomfield: The Leipzig Connection*

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Leonard Bloomfield (1887-1949) was responsible for two classic textbooks in the field of linguistics. The second of these, *Language* (1933) is familiar to most, but the first, *An Introduction to the Study of Language* (1914), is not. It is primarily this earlier book that is of interest here, and this short essay will attempt to bring into focus some of the Zeitgeist factors, particularly the psychology of Wilhelm Wundt, which influence the substance and direction of the early 1914 book. This introduction will have little to say about the more recent history of linguistics since 1933, except insofar as it contrasts with the 1914 stage of Bloomfield's development. This has been done elsewhere (Haas 1978; Hall 1969) and is not taken up here.

Bloomfield's early book fits into the English-speaking gap left unfilled since Whitney's *Language and the Study of Language* (1867) and *The Life and Growth of Language* (1875). Bolling, in reviewing it, compared it to Hermann Paul's *Prinzipien der Sprachgeschichte* (1880; 5th and last edition in 1920), noting that 'there is no work in the English language with which it should be compared' (Bolling 1917; reprinted in Hockett 1970:50). Possibly the most respected and influential codification of linguistics, that is, comparative linguistics, up to Bloomfield's time had been Paul's *Prinzipien*. While comparative linguistics was the initial arena for a highly structured orientation towards language, the notion of the study of language as a natural science was also present, developing into what would become descriptive or structural linguistics. It was not as if linguistics had no place in the human sciences; in fact,

comparative linguistics had blossomed earlier and more rapidly than did psychology.

As a textbook, Bloomfield's 1914 book (henceforth B-1914) had considerable influence. One cannot underestimate the value of an integrated model presented by a popular textbook. As Hall (1979: 192) notes, the influence that Bloomfield had 'was due primarily to the thorough organization of Bloomfield's book and the guidance in scientific method that many younger linguists found in his work and no-one else's.' Though Hall obviously had Bloomfield's 1933 book (henceforth B-1933) in mind, one can also voice the same sentiment about the 1914 version as well. Even so, not all were happy about B-1914 in all respects. For example, Bloomfield's use of innovative terminology was a feature neither familiar to nor welcomed by all. Diekhoff's review (1915; reprinted in Hockett 1970) criticizes him for it, as does Aron (1918; reprinted in Hockett 1970). His (1917) work on Tagalog, appearing about the same time, also shows the same characteristics, and he was accused by the Philippinist Blake (1919) of having changed the face of Philippine structure by having used innovative terminology to describe the language (see also Kess 1979). This was a pattern which was not to change between 1914 and 1933. Looking back in retrospect, a later structuralist generation of course found this entirely laudatory; for example, Bloch's (1949:9) obituary observes that 'to some readers, unaware of the danger that lies in the common sense view of the world, Bloomfield's avoidance of everyday expressions may have sounded like pedantry, his rigourous definitions like jargon.'

The notion of Kuhnian paradigms (Kuhn 1970) in linguistics has attracted a good deal of attention. Some, like Koerner (1972, 1976) have attempted to outline paradigmatic stages in the development of linguistics in a rough and ready sort of fashion. Others, like

Percival (1976) suggest that we simply abandon it in whole or in part. Psychology has also gone through its discussion of whether the field has undergone Kuhnian stages in its evolutionary development of the past century and a half (see Weimer and Palermo 1973, and Weimer 1974 a, b). Regardless of the degree to which Kuhnian notions can be applied to the history of linguistics or psycholinguistics, it remains the case that there are interesting differences in the early B-1914 and the later B-1933, particularly with respect to Bloomfield's psychology of language.

Psychology has tried itself in a number of different directions, and has failed, to come up with a dominant systematic paradigm for more than several decades at a time. Some find this discouraging (see Hockett's introduction to Esper, in Esper 1973) while others (Mueller 1979) simply take this as a matter of course. The systematic overview to which B-1914 owed intellectual allegiance was the one fashioned by Wundt. In the first thirty years of the century, we then see a period during which the goals and methods of psychology are open to question, characterized by the pursuit of a unified view of the discipline of psychology. It was during this period that Bloomfield's later views must have been formed regarding the lack of consensus in psychology, coupled with his associations with A. P. Weiss, leading to the conclusion that linguistics could ultimately do without allegiance to a given system of psychology in its formation as an independent science.

While one may not agree with Kuhn's attempts to relativize the practice of science, one certainly can appreciate in Kuhn's arguments the notion that a given stage may be the product of the ideas of a given period. So one may say that Bloomfield was a product of the intellectual tenor of his times and his training. His early work very much reflects, as did much of American academe in philology

and psychology, the prominence of German intellectual institutions. Many of the early linguists and philologists were trained in part or in whole at German universities or received their training under American scholars who had undergone such training. Bloomfield himself took further studies at Leipzig and Göttingen with scholars like Leskien, Brugmann, and Oldenberg in 1913 and 1914, several years after his Chicago doctorate (1909). Bloomfield's roots, like those of his contemporaries Boas and Sapir, thus were also in the Neogrammarian tradition, having been trained in comparative linguistics. His work not only reflects this training in the rigors of *Junggrammatiker* traditions in historical linguistics, but also the specific influence of Leipzig's Wundt on the psychology of the period. It is more than likely that he listened to Wilhelm Wundt's (1832-1920) lectures more than once while at Leipzig, and certainly Wundt's psychology would have been not only fresh in his mind from the experience, but also prominent. Bloomfield was only 26 at this time and 27 when his 1914 book was published, a formative stage in his intellectual career. Wundt's influential *Die Sprache* was already in its third edition by this time, having first appeared more than a dozen years previously.

Psychology, in the period between 1870 and World War I was largely mentalistic, due largely to the influence of Wundt; its method was largely that of introspection. Wundt is seen by many as the 'father of experimental psychology'; testimony to this is seen in the centennial of the original opening of the Leipzig laboratory recently celebrated by the World Congress of Psychology convening at the same site in 1980. Behaviorist objections to introspection, as personal, unreliable, and trivial, had not yet arisen in any concerted sense. His concern with regularities of overt behavior in an 'experimental' setting, however, was not quite the

the same as later interpretations of what such inquiry might mean, despite the appellation 'experimental'. Psychologists prior to this time found themselves logically within departments of philosophy, just as Wundt himself had; in fact, Wundt first shared the chair of philosophy with a philologist. It was after all only in 1888 that the first professorship of psychology in the world was filled by Cattell (also a student of Wundt's at Leipzig between 1883-1886) at the University of Pennsylvania.

Wundt has been seen of late by many as a kind of early cognitive psycholinguist, very much akin to the modern sense. Some of his ideas have found a renewed respect among many generativist-oriented psycholinguists--indeed, Blumenthal (1970) even characterizes him as the 'master psycholinguist'. Wundt was interested in the experimental control of introspection; his functional mentalism allowed experimental approaches to the conditions of a stimulus situation and observation of reported changes in the experience of the observer. In being an advocate of experimental control of any condition in a scientific sense, dealing with introspection or otherwise, Wundt changed the orientation of the field, in fact, allowed the field to become what it had. In admitting both the notions of experiment and mathematical evaluation to psychology, Wundt was following interests that European scholars had in extending notions of the highly successful natural sciences like biology and organic chemistry to the study of human behavior. It was no wonder that his methods were so attractive and that his school at Leipzig attracted younger scholars of the time. It was more than just the intellectual climate that contributed to Wundt's stature; he had a great deal to say and it was worth paying heed to.

His laboratory and lectures were frequented by students and scholars from abroad. Many of the early prominent American psycholo-

gists were one-time students under Wundt, though some later were unhappy about Wundt's influence on American psychology (see Rieber 1980); and the transplanted Titchener and Munsterberg, as well as Angell, Scripture, Pace, Witmer, Judd, and Warren. Although the American version of Wundtian psychology somewhat modified his views (see Blumenthal 1980) it is obvious that he was influential in the early development of American psychological practices through his returning students. One recalls, moreover, that from about 1850 to 1914 much of American academe, particularly the heavily German-settled Middle West, looked to Central Europe for its model. Leipzig in fact remained a flourishing center of activity until the war and its aftermath disrupted much of European academe, eventually breaking its overwhelming influence in many American circles. (Hall (1969:211) provides some further, more personal, reasons for the decline of European influence in the post-war depression years, when resentment against European scholars in America was also linked to mundane pragmatic forces like job placement, as well as the intellectual ones.)

Language had an important place in Wundt's psychology. His major psycholinguistic work, *Die Sprache* (1900; revised 1904 and 1911-1912), introduced the ten-volume *Völkerpsychologie* series (1900-1920) as the first book of the series. The original 644-page volume was even revised to 1378 pages in the 1912 edition (Blumenthal 1979). Wundt had not only a profound impact on the psychology of the time, but he also exerted a certain degree of influence on linguistics at the turn of the century. Wundt was true to his philosophical origins, and everything in its turn was linked, deriving from a set of primary principles, but it was from psychological principles that all others were to be derived, including linguistic principles. Clearly, Wundt was very much aware of

what was transpiring in the adjacent field of philology. Wundt had maintained a running dispute with Paul and in 1901 had answered Delbrück's (1901) critique of his two-volume (1900) *Die Sprache* with a complete statement of what was for him the relationship between psychology and historical and descriptive linguistics. As Baker and Mos note, (1979:3) 'an analysis of the exchanges which took place between Wundt and the linguist, Delbrück, reveals Wundt's extensive command of and respect for the linguistics literature, and his acceptance of the philologist's premise that he could achieve an understanding "of each social group through the analysis of its language, believing that the very vocabulary and grammar of a people reveal its psychic constitution"... The writings over the last 30 years of Wundt's life (1890-1920) clearly reflect his pursuit of this area, an area he had labelled *Völkerpsychologie*.

Bloomfield was very much aware of not only Wundt, but also the specifics of his work. For example, his (1913) review of Wundt's *Elements der Völkerpsychologie*, appearing in the *American Journal of Psychology*, has nothing but the highest praise for the scope and content of the work. Bloomfield writes that 'the monumental volumes of Wundt's *Völkerpsychologie* find not only a summary but also a crowning supplement in the *Elemente der Völkerpsychologie*. Here the entire mental history of man is outlined in a continuous narrative ... it is safe to say that no other man could have told the story as Wundt has; his vast learning, powerful psychologic insight, powerful insight, vivid sense of history, and, not least, his stylistic ability to present states of flow and change have produced a work of tremendous and awing effect (1913; Reprinted in Hockett 1970:39)'

In his preface (p. vi), Bloomfield also outlines his intellectual allegiance to Wundt, saying 'it will be apparent, especially, that I depend for my psychology, general and linguistic, entirely

on Wundt; I can only hope that I have not misrepresented his doctrine. The day is past when students of mental sciences could draw on their own fancy or on 'popular psychology' for their views of mental occurrence (1914:vi).'

Bloomfield seems to have acquiesced completely to Wundt's establishment of psychology as the propedeutic science. He observes (1914:322-323) that 'the relation of linguistics to psychology is, on the one hand, implied in the basic position of the latter among the mental sciences. These sciences, studying the various activities of man, demand in differing degrees but nonetheless universally, a constant psychologic interpretation . . . As language is in its forms the least deliberate of human activities, the one in which rationalizing explanations are most grossly out of place, linguistics is, of all the mental sciences, most in need of guidance at every step by the best psychologic insight available.' Wundt's influence is also clearly seen in several early chapters in the book. By far the most interesting chapters in this regard are Chapters I on the nature and origin of language and 3 on the mental basis of language (neatly contrasting with Chapter 2 on the physical basis of language). B-1914 would also have generally subscribed to psychological interpretations of language as an outgrowth of emotional expression, and certainly Bloomfield's discussion of gesture language and the origins of language mirror Wundt fairly closely.

Whether or not one agreed with Wundt, one would certainly have to cope with his ideas on the psychology of language in setting out a detailed explication of what it was that linguistic science was dealing with. One could not ignore him, and in dealing with the topic of language, the options would have been either to agree with him or present compelling arguments why not. There was nothing that would have replaced Wundtian psychology on the same grand scale,

had one the temerity to reject it wholesale. And indeed, there was so much of Wundt, considering the voluminous output which characterized his professional life; Boring (1950) has estimated that Wundt must have produced at a rate averaging 2.2 pages every day between 1853 and 1920 to turn out an astounding 53, 735 pages that one could find argument and counter-argument for most fresh approaches if one took the time to look.

As Lane (1945) observes, Wundt's influence was a force to be reckoned with, and even Paul's fourth (1909) edition of the *Prinzipien der Sprachgeschichte* continued their dispute by putting its work in perspective as regards Wundt's notions. But by the fifth (1920) edition, 'his quarrel is not with any "system" of psychology, but ... Wundt's operation with a *Völkerpsychologie* instead of an individual *psychology*--the same objection he had earlier made to Steinthal and Lazarus' work (Lane 1945:472).' It is unlikely that the early Bloomfield would have been in a position to have challenged or ignored the powerful Wundtian system in his 1914 work. But by 1933 he could and did, to the degree that Wundt was even around to be criticized or ignored. By the time of B-1933 Anglo-American empiricism and pragmatism had already challenged and largely replaced Wundtian psychology. The later Bloomfield, of course, was by then highly formalistic, concentrating on a mechanistic view of language and laying the foundations for a highly operationalized methodology.

But, in all fairness, it should also be pointed out that the early Bloomfield saw the value of language data for psychology as well. Thus, note the following quote where Bloomfield observes that 'psychology makes a wide use of the results of linguistics ... such mental processes, then, as those involved in the utterance of speech cannot find their explanation in the individual,--he receives

his speech habits from others,--but must be traced for explanation form individual to individual ad infinitum. They are products of the mental action not of a single person, but of a community of individuals. These products,--not only language but also myth, art, and custom,--are the data which make possible the second phase of psychology, social psychology (German *Völkerpsychologie*). As language, moreover, is less subject than these other activities to individual deliberate actions which interfere with the communal nexus, it is the most important domain in the study of social psychology.' (1914:323-324)

In looking for beginnings of psychology as a science, Meuller (1979) finds Wundt a more convincing candidate for 'founding father' than other contemporaries like Fechner, Helmholtz, and James for several reasons. There is his publication of the first psychological journal as well as his Leipzig experimental laboratory. But there is particularly the matter of perceived intent--Wundt claimed that he was setting out to establish experimental psychology as a new science, and this he did in the first edition (1873) of *Principles of Physiological Psychology* ('physiological' having come to mean 'experimental' by this time.) One should still admit, as Mueller (1979) has done, that there were many paths, representing different names, ideas, and events that contribute to the evolutionary development of psychology around the turn of the century. In this respect, the Wundt of 1879 is best seen as a symbol of those converging ideas and events; Wundt is convenient to focus upon, with the highly systematized psychology that he offered. It was perhaps not that Wundt was really the great innovator as much as he was a great synthesizer. His presentation of psychology as a science, and systematic organization of the field must have been attractive to younger scholars like Bloomfield, who in his turn provided the same kind of

systematic synthesis for the study of language. Bloomfield was to do the same for his own field both in 1914 and in 1933. Simply stated, it is not always easy to demonstrate where paradigms leave off and begin, for scholars who are depicted as revolutionizing a field in the Kuhnian sense are usually found to have historical antecedents whose thoughts they carry on (see Percival, 1976, for an example of this in linguistics). Moreover, one must also give some credence to the intellectual climate of the times, such that figures must also be seen in the light of their times and their discipline. Whether our picture of Wundt is an accurate one or not has been questioned by some (Blumenthal 1979, characterizes him as the'founding father we never knew'). But whether or not Wundt was quietly reinterpreted, by Titchener, and by historian Boring after him, as Blumenthal (1979, 1980) suggests, is a difficulty one faces with most earlier scholars. They are often interpreted through one's own particular training and set of theoretical and methodological positions. For example, Wundt's experimental journal, *Philosophische Studien* (begun in 1881), is a good indication of Wundt and his contemporaries' feeling that philosophy and psychology were one. Indeed, Wundt himself authored four texts in philosophy between 1880 and the turn of the century. Despite the title and its containing reports of experimental studies from his laboratory, the journal was devoted as much to philosophy as psychology. Wundt did think that philosophy should be more psychological, and in this, he was innovative.

The latter-day student of historical antecedents is often left with a disciplinary history which is written from the bias of the reviewer. Witness, for example, Weimer's (1974a) contrasting of Blumenthal vs. Boring's presentation of Wundt to us or Marshall's (1970) review of Blumenthal vs. Esper's account of the substance and relevance of Wundt to current psycholinguistics. History is not

only written by the victors; it happens to be rewritten by every scholar who looks back, and in so doing to some degree squares history with his own theoretical and methodological bias, setting it either at odds or in concert with it.

There is also some questions as to just how 'experimental' Wundt was experimental psychology. According to Blumenthal (1979: 550), 'for Wundt, "experiment" meant the study of processes by means of publicly observable and measurable events.' Introspective reports, in anything like Titchener's style, are indeed very rare in the experiments that come out of the early Leipzig laboratory.' According to Esper (1971), the interpretation is incorrect, and Esper neither sees Wundt as the important psycholinguistic figure that Blumenthal does nor the experimental value of introspection as a psychological method. Even Blumenthal (1979) notes that the massive *Völkerpsychologie* involves no experimentation, despite the attention paid to psycholinguistic matters. As an exceptionally lucid piece of deductive speculation, it is quite compatible, though, with the modern generativist frame of reference.

To some like Blumenthal (1970, 1973, 1975), Wundt's theories seem especially modern. Wundt's goal as a psychologist was 'to give an explicit characterization of the principles that govern the functioning of cognition in humans, and it was his belief that the study of human langauge would provide one of the best means of knowledge about the human mind (Blumenthal 1973:11).' Chomsky's (1968, 1972) injunction about linguistics being a sub-branch of cognitive psychology sounds neither innovative nor startling in this epistemological frame of reference. Moreover, Wundt had similar notions about generating an infinite array of sentences from finite means, a precursory notion of deep and surface structure ('inner and outer forms'), and the idea of the sentence as the basic unit. It is no

wonder that generativists have rediscovered him with such delight.

Thus, for Blumenthal (1970:242) and others, if we now ask 'what is the historical relevance of the new American psycholinguistics as a discipline today?', assuming it to be heavily under the influence of the developments in generative grammar. It is, in fact, in an analogous position to that of Wundt and his followers who in the 1880's opposed the *Junggrammatiker* (or narrow empiricist) tradition in linguistics because of its strict limitation of linguistic study to descriptions of utterances. The *Junggrammatiker* had studied only the physical shape of inventories. Wundt then revived the Humboldtian notions about language, essentially the same notions that were recently revitalized in overcoming the limitations of American behavioral linguistics.' Chomsky is pictured as the one who succeeded the preceding paradigm, and in this respect, leapfrogs back as a parallel to Wundtian psychology in both ideas and achievements. (Not everyone, of course, agrees with the thesis that Wundt should be honored as Chomsky's ancestor nor that there is even any honor in such a claim; see Esper 1971). Chomsky claims that linguistics and psychology both had failed to reach their full and proper potential by concentrating instead on taxonomy and empirical studies. They are from the Chomskian point of view trivial in informing us of anything vital about the essential nature of language. Chomsky's traditions instead are to be traced, like the early 1914 Bloomfield, from a tradition more akin to one in which Wundt's interests would have been compatible. For Chomsky, the Descartesian philosophy of language the Port Royal grammarians, and finally Humboldt himself, are more fitting prototype figures in terms of their interests in language.

Linguistics of the last century were more like philologists in our terms. Given the Humboldtian view of things which so permeated

much of the contemporary work on language, one of their chief preoccupations was to determine how ethnic character and culture were reflected in language, how the mind might be differently expressed in different languages. But true to the philosophical proclivities of philologists of the period, there was more sepculation about the nature of such considerations in language than there was actual research into the formal mechanics of given languages. The practical details were often left to missionaries, teachers, and others who had a need for such things, while the underlying human essence of language was considered more properly approached by deductive means. The influence of ideas about language are seen in Wundt's *Völkerpsychologie* treatment of national psychology and the psychology of language. According to Blumenthal (1973:15), 'this is again the Humboldtian influence . . . the spirit of a society may largely be influenced by the structure and the nature of the language that binds it together.' This tradition, though not necessarily through Wundt, is also found in the work of Boas, Sapir and their followers on this continent, but does not figure as prominently in Bloomfield's followers.

The psychologic interpretation of language was not unique to Wundt. One also sees it in his predecessor Steinthal (1823-1899), as well as in the American philologist Whitney (1827-1894). Bloomfield himself pays homage to this tradition in noting (1914:312) that 'both of these men have been followed by numerous investigators who have contributed to our understanding of the mental processes of speech and of its change and development in time; the great advance of psychology in recent decades and the rise of social and ethnologic studies have been, of course, of the highest benefit to this phase of the science of language.'

Diekhoff's review of B-1914 (1951; reprinted in Hockett 1970)

in fact criticizes Bloomfield for just such notions stemming from following earlier philologists and Wundt a little too closely in their Humboldtian notions of the relationship between language and ethnic character. Diekhoff (1915; reprinted in Hockett 1970:47) observes that 'it is quite true, as our author means to illustrate, "that the categoric and other distinctions of one's own language are not universal forms of expression or of experience"; yet the conclusion ought not to be pressed too hard that the idiomatic differences between various languages indicate a corresponding difference in the mental make-up of the peoples concerned . . . I cannot convince myself that in this outward remedy of a growing indistinctness any corresponding psychological change should have been involved . . . Modes of utterance, or idiomatic turns are very often the result of the most curious historical development, and they no more adequately express psychological analyses, or complex psychological operations, than the sound of the individual word can be said to cover a single psychological concept. Both become conventional . . . ' Diekhoff further criticizes Bloomfield for his treatment of the nature and origin of language, particularly the notion that gesture language was the result of earlier purposeful movements, and that these accompanied by vocal utterances, ultimately form the original basis of language. Diekhoff characterizes this as a matter of faith more than a demonstrable fact, and the faith is obviously one placed in Wundt's notions about gesture language. Bloomfield (1913) himself had noted of Wundt that his discussion of 'the origin of language is splendidly treated . . . toward this we find in the *Elemente* only a sketch of the origin of vocal language in the light of gesture (Wundt's greatest single linguistic contribution lies here) . . . . (Bloomfield 1913; reprinted in Hocket 1970:40).' It

is obvious that B-1914 notions about gesture language and language origins must have been directly distilled from Wundt.

Wundt's work fits between the two positivist cycles in European thought, the first during the mid-nineteenth century, the second around World War I. The second period sees positivism coupled with behaviorism as a popular philosophy of science. Academe witnesses the rise of Anglo-American empiricism and pragmatism, and the strong turn toward a positivist philosophy of science makes for a final undermining of Wundt's place of prominence. With psychology considered a natural science, enhanced by the physiological interests which become so much a part of the discipline, Wundt's concerns are seen as strictly metaphysical and at odds with psychology as a natural science. Eventually, this positivistic view wins out almost completely and Wundt is largely replaced in the discipline's development. (See Danziger 1979, and Blumenthal 1975, for a fuller account of the positivist replacement of Wundt).

Whether Wundt himself presaged the move to radical behaviorism by his pushing psychology out of philosophy into the natural sciences is questionable, but is interesting to note that his desire for a new and independent science using experimental methods in the analysis of mental events does give rise to the next logical step, American positivism taking it to radical behaviorism with its concentration on experimental methods with observable features (see Baker and Mos 1979). Wundt perhaps provided the catalyst by which this turn of events essentially materialized.

The intellectual climate thus changes, and Wundtian mentalistic psychology gives way to behaviorism. By the time B-1933 appears, the decline was largely complete, and German intellectual hegemony was also considerably weakened. Others had also changed their appreciative impressions of Wundtian notions, and Bloomfield was

not alone in having coming full circle in abandoning Wundt's notions on the psychology of language (see Blumenthal 1973:16-17). Behaviorism in psychology had largely captured the American academic imagination, and by the 1920's behaviorism was fashionable not only amongst professional academics, but also in the popular sense. Watson's (1919) *Psychology from the Standpoint of a Behaviorist* and Weiss' (1924; 1929) *A Theoretical Basis of Human Behavior* were very much in evidence and were largely to replace what vestiges of Central European functional mentalism remained on this continent. One can see B-1914's adherence to Wundtian dualistic psychology as being quite out of place, had he continued with such loyalties in B-1933. In Mueller's words, (1979:28), 'Wundt's way of thinking about psychology, and the thinking of those that followed in his tradition, did not contain the essential ingredients that could have generated twentieth century psychology . . . one is struck by the fact that all [but Wundt] are characterized by experimental or observational procedures that are still acceptable as bona fide scientific procedure. The one line of inquiry that specified, and was based on, an "experimental" procedure that is not judged acceptable as a method of scientific investigation at the present time is the line established by Wundt. The paradox is that psychology has selected as the founder of its science a man whose line of inquiry brought with it no acceptable experimental method.' Wundtian psychology was simply not compatible with the turn of events in psychology, nor the kind of behavioristic positivism that Bloomfield and others in the 1930's subscribed to. While such Wundtian belief systems were perfectly legitimate in their 1914 context, in 1930 they would have been both outmoded and incompatible with the developments that were taking place in the behavioral sciences in America. In contrasting the two intellectual climates and noting the pendulum swings

between objectivism and mentalism in psychology and other social sciences over the last two centuries, Esper (1978) even suggests that we would have been better off staying where the Bloomfieldian swing took us rather than having continued on into another mentalism, that of Chomskian mentalism. This, however, may be far from a majority opinion in the discipline.

Just as the sociology of Durkheim had an influence on Saussure, so also did the behaviorist psychology of A. P. Weiss (1879-1931) on the later Bloomfield. How highly Bloomfield thought of Weiss is captured in Bloomfield's obituary of Weiss: 'Weiss was not a student of language, but he probably was the first man to see its significance' (Bloomfield 1931; reprinted in Hockett 1970:237). Bloomfield moved from a Wundtian view that language could be accounted for only in terms of human psychology to a more Weissian view that human psychology can only be accounted for in human language terms. According to Hockett (see Esper 1973:xiv), 'Weiss helped Bloomfield to realize that the traditional psychological "explanations" of this or that feature of language were nothing more than paraphrases, in mentalistic terms, of what could be (and often enough already had been) perfectly well described in purely linguistic terms.' Although this particular form of behaviorism did not hold center-stage in either psychology or linguistics, it did have sufficient impact on linguistics to endow the discipline with the particular complexion it had from 1930-1956. Bloomfield had already swing over to the position that it makes little difference which psychology the linguist accepts by the time his (1926) article on 'A Set of Postulates for a Science of Language' appeared, and the period of psychology-independent structuralism probably finds its origins here as well as anywhere else.

Weiss' influence is particularly obvious in Boomfield's (1930)

presentation of 'linguistics as a science.' His beliefs as to linguistics being a science are still firm, but what this entails is somewhat modified from B-1914. No longer does one find explanations of the why of human linguistic behavior; description thereof is sufficient. Bloomfield observes, 'linguists do not pretend explain conditions or changes by saying that the speakers strove toward such an end, such as euphony or clearness, and when linguists speak of a soul or mind, the term is otiose . . . it is true that in the last years some students of language have tried to galvanize the finalistic and animistic factors into some effect upon linguistic forms, but these scholars have in this way produced nothing but less useful restatements of results that were gained by the ordinary methods of linguistic study' (Bloomfield 1930; reprinted in Hockett 1970:229). These Weissian notions are also evident in Bloomfield's criticism (1933:17) of Paul's psychological interpretations of language characteristics, noting that Paul was given to 'statements about language with a paraphrase in terms of mental processes which the speakers are supposed to have undergone. The only evidence for these mental processes is the linguistic process; they add nothing to the discussion, but only obscure it.'

Whether Bloomfield recognized that in the Kuhnian sense psychology is also given to cycles of thought and paradigms of activity is difficult to discern, but like his predecessor Delbrück, he came to eschew such choices between theories in what had become a separate and distinct field. Delbrück's advice (1901), of course, was to simply ignore developments in psychology and proceed on with the linguistic business at hand. In Delbrück's time, the choice was between Herbart and Wundt; in Bloomfield's time the choices were different, but the principle of disciplinary independence remained for Bloomfield to enforce. Wundt had attempted to replace

Herbart's mechanistic and associationistic psychology with a new experimental psychology, seeing psychology as the propaedeutic core science, not one as subordinate to or even partner with other sciences of human behavior. Language is the result of psychological processes, and one extrapolates from this that the study of philology and psychology must be linked. And of course looking at his *Völkerpsychologie* series one can easily see how for Wundt the entire complex of human organizational phenomena is ultimately psychological. Delbrück's conclusion (1901) that it makes little or no difference which system of psychology, Wundt or Herbart, is chosen was for Wundt a rejection of psychology altogether, since Wundt was himself so convinced of the superiority of his own system (see Kantor 1936). Delbrück simply saw no particular advantage in understanding or explaining language by choosing one psychological system over the other, and in so doing, simply rejects them both as interesting, but not germane. In so doing, Delbrück sets the stage for Bloomfield's similar rejection of psychology. While Delbrück might have been some superiority in Wundtian psychology, Bloomfield would have seen the same compatibility in behaviorist psychology; however, a choice is not required, and linguistic science can proceed without being wedded to either.

Thinking probably of Delbrück, Bloomfield (1933:vii) writes, 'in 1914 I based this phase of the exposition on the psychologic system of Wilhelm Wundt, which was then widely accepted, ' but 'since that time there has been much upheaval in psychology; we have learned, at any rate, what one of our masters suspected thirty years ago, namely, that we can pursue the study of language without reference to any one psychological doctrine, and that to do so safeguards our results and makes them more significant to workers in related fields.' That the relationship could even be reversed, with

linguistics having a good deal to offer psychology, is obvious in Bloomfield's (1933:32) suggestion that 'the findings of the linguist, who studies the speech signal, will be all the more valuable for the psychologist if they are not distorted by any prepositions about psychology. We have been that many of the older linguists ignored this [perhaps having Hermann Paul in mind]; they vitiated or skimped their reports by trying to state everything in terms of some psychological theory.' Although the B-1933 carefully makes explicit its intention to set aside psychological considerations in delineating linguistics as a science, one should admit that the mechanistic principles of behaviorism were not only more compatible with the new linguistics, but also likely to be preferred.

Thus one comes full circle from B-1914 to B-1933. Though Bloomfield called his 1933 book a 'revised version of the author's *Introduction to the Study of Language*,' his reviewers immediately comment on its being a totally new book. For example, Edgerton (1933; Hockett 1970:258), "this is really a wholly new book", Meillet (1933; Hockett 1979:264), 'au lieu de faire de son ancient ouvrage une édition corrigée, il a écrit un livre nouveau fonde sur des theories, purement linguistiques'; Sturtevant (1934; Hockett 1970:265), 'in reality, however, it is a new book.' One also detects a certain relief on the part of some that the early Wundtian allegiance has disappeared. For example, Kroesch (1933; Hockett 1970:261), 'the author wisely emphasizes the facts of language throughout rather than psychological interpretations'; Bolling (1935; Hockett 1970:278), 'the second drive has for its objective the elimination of "psychological explanations" from our work. Again I am in hearty agreement with the author . . . such theories add nothing to our understanding of our own problems . . . '

The fact of Bloomfield's being subject to Kuhnian intellectual

atmosphere considerations does not in any way diminish Bloomfield's stature at either point in his career. As Koerner (1976:708) has suggested, the fact that scholars are reflections 'of their time and not *creatores ex nihlo* does not by any means diminish their attainments; their creativity and originality lie in the very fact that they were capable of making use of the things that were in the air and put forward a synthesis, a general theory of language, in a rigorous manner not proposed by any of their contemporaries.' In Bloomfield's case, this is all the more enlightening for us, for we can observe both the intellectual tenor which went into the molding of the discipline as a separate entity, and then its shift to positivism. For those who fail to see the archeological merit in this stratigraphic layering of the evolution of ideas within our own discipline, it will at least allow them to glimpse their own mentalism through the eyes of an earlier mentalism.

We are at a critical turn in the development of our own understanding of the discipline. Lest we allow the pendulum swings between mentalism and objectivism to presage yet another pendulum swing, we must make the most of what we have learned from the past. As Blumenthal (1974:1131) has noted, 'the real successes of both the comparative linguistics in the twentieth century were concerned with methodology, procedures, and techniques. Those times in both centuries were perhaps paralleled by similar movements within psychology in general. The Wundtians, no less than some recent psychologists, then discovered that positivistic psychology was in need of explanatory theory, of a more sophisticated cognitive psychology . . . 'What we perhaps need now is an informed experimental mentalism, one which allows us to understand mental events, but by inductive means to balance out our deductive speculations about language and cognition. Unless we do so, we risk another

swing, perhaps even another exciting new paradigm, but one which ultimately is as informative as the experimental mentalism alternative.

Finally, it might be said that we are in many ways what we were and many of our questions have been also asked in different times and different places. As Percival (1976) has suggested, the history of our discipline, as all others, is a history of the progression of ideas, and B-1914 is a reflection of ideas that come together from a variety of intellectual sources to focus at one point in the history of the discipline that has become the one we are. One welcomes the re-issuing of a classic in our field, and given Bloomfield's intellectual origins and his academic associations, a classic in psycholinguistics as well.

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*Note: This is a preliminary version of a paper prepared in connection with the re-issuing of Leonard Bloomfield's (1914) *An Introduction to the Study of Language* in the *Classics in Psycholinguistics* series, *Amsterdam Studies in the Theory and History of Linguistic Science.*

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