CONTEMPORARY REACTIONS TO RUDOLF MERINGER'S
SPEECH ERROR RESEARCH*

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1.0 *Introduction*

1.1 Rudolf Meringer (1859-1931) published two collections of speech errors, *Versprechen und Verlesen* (1895) and *Aus dem Leben der Sprache* (1908). These were the first speech error collections to be published and are still the most comprehensive collections available in print.

The recent resurgence of interest in speech error research among psycholinguists (see, for instance, Fromkin 1973 and in press) has resulted in frequent citation of Meringer's work. Tribute is regularly paid to his pioneering efforts in the area. Yet Meringer himself was no psycholinguist, but a philologist by training and occupation; professor of Indo-European linguistics for most of his professional life and among the founders of a movement in linguistics which has been termed 'cultural morphology' (Helbig 1970). It was not at the time obvious that it would be his work on speech errors which would bring him his most lasting fame. This essay will examine the contemporary reactions to Meringer's speech error investigations and the immediate effect of his research on other work in the field. It will be prefaced in this introductory section by a few brief remarks on Meringer's place in the history of linguistics; further details of his life and work can be found in Cutler and Fay (1978).

1.2 In 1909 the first issue of the journal *Wörter und Sachen* ('Words and Things') was published; it was edited by Meringer from then until shortly before his death. This journal, as the title suggests, was concerned with research into words

in conjunction with the things to which they referred; it was the primary organ
of the school of thought represented by Meringer and his editorial colleagues
(Hermann Güntert, Rudolf Much, Wilhelm Meyer-Lübke). Reacting against
the Neogrammarian movement which at that time was a very strong influence
in philology, the cultural morphologists declared that to concentrate upon
the external form of words was to make linguistics a sterile academic pursuit
out of touch with the living language. Instead, they argued, the meaning of
words and change in their form and use could only be properly comprehended
in the light of a complete understanding of the scope of their reference and
any parallel change in the form or use of the things to which they referred.
Thus *Wörter und Sachen* was full of articles in which the history of various
domestic utensils was described in conjunction with the history of their names;
in which changing trends in architecture were chronicled along with changing
names for the various parts of a house (domestic architecture was Meringer's
own particular area of specialisation); in which folkloric rituals were reported
in detail together with the dialectal words and the songs which formed part
of them.

The cultural morphology movement did not prove to be a decisively influen-
tial linguistic trend. It was, admittedly, not without effect on later work; vestiges
of its approach can still be seen today in the linguistic atlases and other work of
the dialect geographers. Nevertheless it is probably fair to say that the research
which accounted for by far the major part of Meringer's philological efforts has
left no lasting impression on the discipline.

1.3 His two speech error books, with the contemporary effects of which the
present essay is concerned, were conceived early in his career. At the time,
Meringer was still at the University of Vienna, where he took his doctorate
and taught until he took up a chair at the University of Graz in 1899. The
first volume, *Versprechen und Verlesen*, appeared in 1895 under the joint
authorship of a neurologist, also at the University of Vienna, Carl Mayer (1862-
1936). Although Meringer in fact wrote the text of the book in its entirety,
Mayer's co-authorship reflected both Meringer's gratitude for the assistance
which Mayer gave in the work, and Meringer's desire to add a degree of psycho-
logical credibility to the undertaking (see Meringer 1911:55). The book contain-
ed a very large collection of speech errors carefully arranged into categories,
Meringer's generalisations on the basis of his corpus, and a chapter on the rela-
tion of errors in spontaneous speech to language change.

As early as 1896 a subsequent work was said to be 'about to go to press'
(Meringer 1896:352). *Aus dem Leben der Sprache* finally appeared twelve
years later, in 1908. It was a mixed bag: three subtitles, 'speech errors', 'child
language' and 'imitation' defined the three sections, of which the first was

another extensive collection of errors following the lead set by *Versprechen und Verlesen*, and including further summary remarks; the second a set of sketchy diary studies of children's linguistic productions, following the example set a year previously by Clara and William Stern (1907), and including a statement of Meringer's position on various controversies current at the time in the child language literature; the third a brief and superficial essay on the role played by imitation in language behaviour.

1.4 Meringer's discussions of the regularities exhibited by speech errors and the implications to be drawn from them anticipated many of the insights of present-day researchers. (For a more detailed discussion of this see Cutler and Fay 1978.) In the following sections the contemporary reaction to this work is examined under three headings: the legitimacy of speech errors as a topic for research; the correctness of Meringer's conclusions; and the value of the observational method.

2.0 *The Legitimacy of Studying Speech Errors*

2.1 Meringer's speech error collections did not provoke complete unanimity of response among his academic contemporaries. 'This book has been written with admirable zeal', wrote one reviewer of *Versprechen und Verlesen*, 'but it is not clear to me that the strictly scientific value reaches the same heights; in any case the book shows a distinct lack of taste, concerning itself all too much with the petty and the trivial. I cannot see that science is advanced by hair-splitting of this type' (Polle 1895).[1]

But what is one man's tasteless hair-splitting is another's exciting scientific advance: 'Stimulation and enjoyment are to be found in abundance in this truly modern scientific enterprise, in which "by-products" are exploited which in earlier times were merely considered as waste' (R. M. Meyer 1909:152).

It was perhaps to be expected that research on a topic which was both new and different would generate differing opinions. But strictly speaking, the idea that speech errors might be worth investigating had been around before Meringer's entry into the field; his contribution was actually to investigate them. Their linguistic relevance had been suggested by philological debates on the source of language change. Briefly, two positions on this question can be distinguished: (1) the view that changes are gradual and imperceptible in origin; and (2) the view that sound change begins abruptly and spreads from a minority to a majority of the speech community. The former view is most closely associated with the Neogrammarian movement.

It was, apparently, Hermann Paul, in his influential work *Principles of the*

History of Language (1880), who first made the suggestion that particular sound changes might have their original form in slips of the tongue, and suggested that slips of the tongue might exhibit characteristics which are similar to sound change. Meringer, in the foreword to *Versprechen und Verlesen*, refers to his investigation as 'the path which Paul pointed out and I followed' (Meringer & Mayer 1895:IX). Clearly the suggestion is not one which would be likely to appeal to holders of the Neogrammarian position; Meringer's philological work, as we saw in the preceding section, was dedicated to confounding the Neogrammarians.

Ironically, though, Meringer's researches led him to reject the hypothesis, at least in its strongest forms. 'Speech errors and certain kinds of language change', he wrote, 'are not inter-dependent, but have in common a higher cause which is to be found in the characteristics of the psychological language mechanism' (Meringer & Mayer 1895:VII). Most speech errors, he concluded, would be unlikely to produce sound change since they were quite dissimilar in form to characteristic sound changes. And those that were similar could not be said to *cause* sound change; rather, certain sequences of sound are difficult to utter, and this difficulty expresses itself both in the individual's slips, and, eventually, in a change in the language.

Most of Meringer's linguistic colleagues were convinced by the conclusion. 'Absolutely correct' said the Germanic philologist von Grienberger (1901). Wilhelm Streitberg – also a Germanic philologist – expressed approving agreement with Meringer's position (Streitberg 1896). The Latin scholar Friedrich Stolz called *Versprechen und Verlesen* 'an excellent book' (Stolz 1903). Hermann Paul himself incorporated references to Meringer's work into later editions of his *Principles*. One might have expected, too, that the Neogrammarians would find some comfort in Meringer's rejection of speech errors as a *source* of language change, and when *Versprechen und Verlesen* was given to a Neogrammarian, Gustav Meyer, to review, although he, typically, criticised the undertaking per se and cast doubt on its value to linguistics, he made a point of praising this particular conclusion – 'Meringer has certainly apprehended the relationship correctly', he wrote, in the only positive sentence in an otherwise disparaging review (G. Meyer 1896:53).

On the other hand, Theodor Heller, a psychologist who reviewed *Versprechen und Verlesen*, somehow missed Meringer's conclusion and praised him for having *demonstrated* that in many cases speech errors precede language change (Heller 1896). Indeed, it is possible that Meringer may have been misunderstood by others; Otto Jespersen, writing in 1941, cited Meringer's work in the course of a discussion of dissimilation and remarked: 'The result of such lapses becomes settled as a permanent feature of the language' (Jespersen 1941: 447).

With only a very few exceptions, then, Meringer's speech error research seems to have been accepted as a worthwhile undertaking by his contemporaries. Furthermore, it was frequently cited by psychologists (e.g., Wundt 1900; Jastrow 1906; Wells 1906; Saling 1908; Menzerath 1909), and referred to in American linguistic and phonetic texts (e.g., Oertel 1902; Scripture 1902).

2.2 When one considers the background against which Meringer undertook his investigations of errors, it is not surprising that they were appreciatively received. The work was developed in an atmosphere of enthusiastic support from friends and colleagues. R. M. Meyer, the eminent Germanist, mentioned explicitly in his review of *Versprechen und Verlesen* that he had himself collected errors for a while (and had given up doing so because he came to believe, rightly or wrongly, that his enthusiasm as a collector was causing him to make errors of a kind he had never made before [R. M. Meyer 1897]); he also sent Meringer his collection of reading errors, which Meringer included in the *Aus dem Leben der Sprache* corpus. Similarly, the child language diaries published in *Aus dem Leben der Sprache* were collected not only by Meringer himself, observing his own children, but by two of his colleagues. Finally, the speech errors in *Versprechen und Verlesen* reflect in the most convincing way the support of Meringer's colleagues for his undertaking. They were, almost without exception, produced and noted over the lunch table during the regular midday gatherings of Meringer and a few colleagues at the University of Vienna during the first half of the 1890s. The conversation at table, Meringer reports in *Aus dem Leben der Sprache*, was strictly constrained so as to facilitate the collection of errors: 'Never was more than one person to be speaking, and if someone made an error, then we would immediately stop the entire conversation for as long as was necessary for exact confirmation and recording of the case' (Meringer 1908:5). Many modern speech error researchers would be grateful for similar support from their colleagues.

2.3 Perhaps the most enthusiastic contemporary acknowledgement that speech errors were indeed worth studying came from Sigmund Freud, who made free use of the *Versprechen und Verlesen* corpus in his *Psychopathology of Everyday Life*, first published in 1901. Freud's conception of the significance of speech errors differed from Meringer's: whereas Meringer sought, at first, insight into the nature of the language and later came to believe, in a striking anticipation of modern research on slips of the tongue, that errors provided insight into the nature of the psychological language apparatus (see. e.g., Meringer & Mayer 1895:VII), Freud sought in the evidence of speech errors support for his theory of repression, and eventually claimed that each and every error that occurred was the expression of a repressed thought (Freud 1916). This consider-

able difference of approach led to a controversy between the two which continued over many years and produced several vitriolic exchanges (see Cutler & Fay [1978:XXVIII-XXXI] for a description in greater detail). Agreement on the legitimacy of speech errors as a subject for scientific research did not in this case presuppose agreement on any further points at all. In the next section it will be shown that Meringer's philological contemporaries, too, did not necessarily agree with him on all points of his analysis.

3.0 *The Correctness of Meringer's Analysis*

3.1 Some reviewers felt that Meringer's speech error books placed too much emphasis on data rather than theory (e.g., von Grienberger 1901; Scheinert 1909). It is certainly true that both *Versprechen und Verlesen* and *Aus dem Leben der Sprache* are comprised to by far the greater part of lists of examples. However Meringer's achievement in classifying these data and in constructing generalisations about the forms of error which occur (and by implication the forms which do not and cannot occur) was by no means a small one. A more complete account of the conclusions which Meringer drew from his analysis of speech errors and the extent to which his conclusions anticipate and agree with current research in this field can be found in Cutler & Fay (1978); in the present paper a summary of the major points will suffice.

3.1.1 The major types of speech error, according to Meringer's classification, are: exchange, anticipation, perseveration, contamination, substitution. Exchanges, anticipations and perseverations of words, of syllables, and of single sounds or even components (features) of sounds are all common. Contaminations occur between words or between phrases or even sentences, and in this category Meringer included both blends between alternative candidates for utterance and 'displacements', in which the elements which have become confused are not synonymous alternatives but two successive parts of the speaker's output; haplologies, for instance, would fall into this latter group. The word substitution category includes cases in which an intended word has been replaced by a semantically related word, by a sound-related word, or by a word evoked by an unrelated visual or other stimulus in the environment. In comparison with these major classes of error, other errors, such as omission of sounds or syllables, mistaken verb endings and omission or addition of a plural morpheme, are very rare.

3.1.2 Four major generalisations about the characteristics and implications of speech errors can be extracted from Meringer's writings:

(1) Errors are not random, but are 'rule-governed': 'The operation of chance is totally excluded' (Meringer 1908:3; see also Meringer & Mayer 1895:9-10).

(2) The fundamental unit of language is not the individual sound but the word (Meringer & Mayer 1895:6-7).

(3) Words can be divided into components which differ in the strength of their internal representations (Meringer & Mayer 1895:164).

(4) All people make speech errors according to the same rules (Meringer & Mayer 1895:10; Meringer 1908:6, 123).

Combinations of these generalisations can be seen in Meringer's observations about the particular rules governing exchange, anticipation and perseveration of sounds. Basically, like replaces like – a particular sound can only be replaced by another sound with a parallel function in another word. Thus initial sounds exchange, syllabic nuclei exchange, word-terminal sounds exchange, but a word-initial sound does not change places with a word-terminal sound, for instance. The differing 'strength' of various parts of the word can be seen in the order of recall of different parts in a 'tip-of-the-tongue' situation – those parts with the highest value, and generally recalled first, are the initial sound and the stressed syllable. The effect of this can be seen in the influence of word stress in speech errors – stressed syllables exchange with stressed syllables and unstressed with unstressed (irrespective of their position in a polysyllabic word); stressed and unstressed do not replace each other.

The observation that speech error phenomena are regular, and occur consistently across different speakers, was given considerable weight in Meringer's writings; we shall return to this point in section 3.4 below. The only exception he admitted was the possibility of different patterns of error in languages with a structure different from that of German.

3.2 It goes almost without saying that it was Sigmund Freud who, at the time, showed the most marked difference of opinion with Meringer over the interpretation of the speech error data. To Freud, speech errors were interesting because they presented potential confirming evidence of psychoanalytically diagnosed states of mind. The regularities which Meringer described did not, therefore, seem at all significant to Freud, and he was consequently unconvinced by the implications which Meringer drew from them. One does not find in Freud's writings, for instance, any sign that he considered, as Meringer did, that the speech errors of all people of whatever background are basically alike.

Although Freud had, in his earlier writings on speech errors, accepted that at least some speech errors, if only the simple sound errors, could admit of a non-psychanalytic explanation (Freud 1901), he later came to believe that his own type of explanation held in each and every case; of Meringer and Mayer's interpretations he wrote: 'The attempted explanation which the two authors

construct on the basis of their collection of examples is particularly inadequate' (Freud 1916:29).

3.3 Meringer (1908:11) mentioned that alternative error classifications had been suggested to him after the publication of *Versprechen und Verlesen*. None of the six reviews of *Versprechen und Verlesen* discussed here, however, offers such a suggestion, although two years later Albert Thumb (1910a) complained that Meringer's categories often overlapped. In general the specific criticisms and suggestions offered by reviewers were concerned – as is the way with book reviews – with fairly minor points. Thus Meringer was criticised for including a few errors made (in German) by speakers whose original native language was not German (G. Meyer 1896); it was suggested that a few of his errors might be intrusions from another dialect, not the speaker's own but familiar to him (von Grienberger 1901); and one reviewer objected that no consideration had been given to the relative euphony of the intended utterance and the error – in many cases the error might have been precipitated by being markedly more euphonious than the target (R. M. Meyer 1897). Several typographical errors in *Aus dem Leben der Sprache* were noted by one reviewer with the joke: 'Is it to follow precept with example and to give the reader the opportunity of actual experience of lapses that the author has allowed a few faults to exist in his work?' (Piquet 1909).

The suggestion that sound errors are rather more likely to occur if the result is a real (albeit unintended) word than if the result is a non-word was made both by R. M. Meyer (1897:211) in his review of *Versprechen und Verlesen* and later by Oertel (1902:231); exactly this hypothesis has recently been confirmed in artificially induced speech errors at least (Baars, Motley & MacKay 1975).

3.4 'Everybody makes speech errors, in basically the same way' (Meringer 1908:123). However, every speech error researcher is familiar with the objection that his or her collection of errors is unrepresentative. Errors are, of necessity, noted in the course of the collector's daily life, so that if the collector is an academic, many of the collected examples will have been uttered by other academics. The present author has, for example, described lexical stress errors (e.g., *económist* for *ecónomist*) in terms of the intrusion of morphologically related forms; it has frequently been suggested that this explanation might hold only for the educated speakers from whom the majority of these errors had been reported. Similar suggestions were made to Meringer 80 years earlier. 'The educated, especially the linguistically educated, make errors which differ from those of more naive speakers' wrote R. M. Meyer (1897:210). But as an instance of the kind of error which the educated do not make, Meyer

cited hypercorrect forms, which, being clearly intended by the speaker, do not fall into the category of speech error as defined either by Meringer or by present-day researchers.

In a short article in the popular press (Meringer 1900), Meringer mentioned that he had been criticised for including the names of individual speakers in *Versprechen und Verlesen*. The reason he had done so, he explained, was to underline his opinion that errors deserved the serious attention of linguists — how better to drive this lesson home than to present his readers with examples collected from their highly educated and linguistically sophisticated colleagues? It may not have occurred to him before the book's publication that this strategy could lead to the accusation that only such speakers made errors of this kind. Certainly the only reference to this question in *Versprechen und Verlesen* is a single footnote in which Meringer passes on, with some qualifications, the observation of his co-author Carl Mayer that rural dwellers do not seem to make speech errors (Meringer & Mayer 1895:164).

In *Aus dem Leben der Sprache* Meringer specifically rejected this possiblity. On the contrary, he declared, everybody, at all ages and of all walks of life, makes speech errors and makes the same kind of errors. He had taken pains, he pointed out, to include in the new book errors from all sorts of different speakers: 'Children, adults, old people — academics, artists, diplomats, politicians, craftsmen, maids, waiters, school attendants, farmers etc' (Meringer 1908: 6). Furthermore, he cited several instances in which very similar errors had been uttered by highly educated and by uneducated speakers — a professor of psychiatry and a tramp, for instance.

Later in the same work he returned to the question, in connection with the question of the mental representation of words. We do not simply reproduce each word in its different forms (i.e., with different case, tense, gender and number marking) from memory, he wrote; instead we have a mental representation of the rules for determining the different grammatical forms. It might be thought, he continued, that simple uneducated people do not need these rules because for them memory suffices to contain their small vocabulary. But this supposition should be rejected outright, since at the very least it implied a gross under-estimate of the size of such speakers' vocabularies (one can detect here an echo of Meringer's 'word-and-thing' studies).

One reviewer remarked acerbically that Meringer had, on the contrary, over-estimated the vocabulary size of the average country dweller (Piquet 1909). But Meringer found a supporter in Albert Thumb, who declared his sympathy with Meringer on the grounds that it had been similarly suggested of his own word association experiments that the results might be valid only for educated speakers. 'People who express reservations of this kind have simply no idea of the facts of modern psychology' (Thumb 1910a:501). Thumb later suggested

(Thumb 1910b) that Meringer check the hypothesis of the universality of errors experimentally. The methodological question implicit in this suggestion is the topic of the next section.

4.0 *The Observational Method*

4.1 The crucial link between Meringer's speech error work and the main body of his philological research was his dedication to observation as a linguistic research method. In the articles in which he expounded and justified his program of research on 'words and things', Meringer frequently attacked linguists who studied words in isolation from their referents, and change in word form in isolation from change in referent form or change in reference. The proper study of language, he argued, was possible only in combination with the study of language use; linguists should regularly leave their books, go out among the people, and listen to language in use. 'A modern researcher is not one who leaves his desk only in order to visit the library', he wrote (Meringer 1909: 597).

Similarly, he defended his study of speech errors as observational testing of a philological hypothesis. Paul (1880), and others after him, had suggested that certain types of language change might have their origin in slips of the tongue. Meringer took it upon himself to test this hypothesis by collecting actually occurring errors and comparing the characteristics of the error corpus with the characteristics of sound changes. On the basis of his findings, he rejected the stronger form of this particular hypothesis.

Meringer recommended that his philological colleagues adopt his observational methodology. Observation, he argued, would not only illuminate many philological questions of pressing interest, but it promised results which would be generally accepted by the field: 'I firmly believe that observation of speech errors will eventually shed light on the effects of sounds on other non-adjacent sounds — including sound and syllable dissimilation — on contaminations between words, on the unfortunately named folk etymology, and on the question of analogy. .... . And observation of the living language can only lead to a consensus of findings and opinions' (Meringer 1901:13-14).

4.2 Current speech error research is carried out in the main by psycholinguists whose discipline is generally considered to be a branch of experimental psychology. When psycholinguists who study speech errors are called upon to defend their methodology, the proposed alternative is, therefore, not theoretical linguistics but psychological experimentation. (That naturalistic observation has come into its own once more after a century of laboratory experimentation

in psychology is due simply to the difficulty of studying language production in the laboratory with a level of experimental control comparable to that achieved in psycholinguistic studies of language comprehension.) And although Meringer regarded his observational approach as an alternative to the more theoretical approach of his linguistic contemporaries, it was the experimental approach of a psychological laboratory which was most frequently suggested as an alternative methodology in the discussion which followed the publication of *Versprechen und Verlesen*.

Experimental psychology, which may be regarded as having been definitively founded with the establishment of Wundt's laboratory in Leipzig in 1879, was by the 1890s very active. A great deal of attention was devoted, in particular, to the study of language in the laboratory; word association was by far the most common subject of investigation.

Thus the reviewer of *Versprechen und Verlesen* for the *Zeitschrift für Psychologie und Physiologie der Sinnesorgane* commented that, whereas the study of speech errors as they occurred in word association studies was reasonably common, Meringer and Mayer broke new ground in collecting their errors from spontaneous speech (Heller 1896). Another reviewer – in fact the Germanic philologist Wilhelm Streitberg – suggested that *Versprechen und Verlesen* represented only half a solution to the problem posed by speech errors, and that a complete answer could only be obtained by experimental means: 'We have learned from Meringer *how* we make speech errors; now the much more difficult question should be tackled of *when* errors occur. By means of experiments it should be demonstrated under what conditions the psychological inhibition is removed, which under normal circumstances, prevents the occurrence of an error' (Streitberg 1896).

4.3 In 1901 Albert Thumb, a philologist, and Karl Marbe, a psychologist and the originator in this work of Marbe's Law (the more common an associative response, the faster is the reaction time with which it is given), published their collaborative study *Experimental Investigations of the Psychological Basis of Linguistic Analogy* (Thumb & Marbe 1901). In this work they described a number of word association experiments dedicated to comparing the linguistic manifestations of analogy with the processes of psychological association.

In the introduction to *Aus dem Leben der Sprache*, Meringer could not resist making a remark about the contrasting methodology of his work and Thumb's. 'I can point to one case', he wrote, 'in which experimentation has led to results quite similar to those obtained by observation. Thumb and Marbe's *Experimental Investigations* show roughly the same as is shown by speech errors; however the information derived from speech errors, if the observations are continued over a sufficiently long period, is better and more exact' (Meringer 1908:V).

Thumb, given *Aus dem Leben der Sprache* to review, responded to this remark. Meringer was not, he suggested, as familiar with psychological matters as the subject matter of his research demanded that he should be. It was certainly not true that any and all speech errors were of interest to the researcher into language, any more than were any and all associations – Meringer's observational material should have been tested and organised according to its value in explaining normal language processes (Thumb 1910a:501). In a separate article, entitled 'Observation and Experiment in Psycholinguistics' (Thumb 1910b), Thumb addressed himself further to the question in which Meringer's brief remark had aroused his interest. He compared the relative value of observation and experiment in the study of language to the relative value to the mathematician of summing a regular series of indefinite length as opposed to developing a formula to account for any such series. Observation is all very well, he argued; it allows us to develop an overall picture of the relevant phenomena and to formulate precise questions; but only on the basis of experimental testing of such questions can we establish with certainty laws and generalisations which describe and account for the phenomena in question.

Meringer's discussion of hearing errors, Thumb pointed out, was much sketchier than his discussion of speech errors. (The reason for this was, presumably, the same reason that research on hearing errors today lags far behind research on speech errors. Hearing errors are far harder to collect since their apperception depends on the hearer's own realisation, and report, of the error. Speech errors, on the other hand, as broadcasters well know, can be perceived by audiences numbering into the millions.) In future, suggested Thumb, hearing errors should better be studied by experimental methods, to which they lend themselves well. Similarly, reading and writing errors are susceptible to experimental investigation. And although speech errors might seem to lend themselves far less well to laboratory study, certain of Meringer's suggestions and conclusions simply cry out for experimental test. Even the question of when, and for what reason, errors occur – a question which Meringer, perhaps in reply to Streitberg's review of *Versprechen und Verlesen* mentioned above, had in *Aus dem Leben der Sprache* called 'unanswerable' (Meringer 1908:123) – Thumb declared to be suitable for experimental investigation, and at this point reported an experiment of his own. I will briefly describe this experiment, since it dealt with an issue on which recent research has shown Meringer's conclusion to have been inadequate.

Meringer (1908:51) claimed that word substitution errors in which the erroneous form had no relation of meaning to the intended word, but considerable similarity of sound (e.g., 'Wind' for 'Wirt'; or 'onion' for 'oven'), were rare, and were usually committed by 'intellectually unimpressive persons', or, if from those of greater intellectual gifts, then only in states of fatigue or illness.

In this generalisation, Meringer was wrong; such errors, which have been called malapropisms, occur fairly commonly and have been the subject of recent research (Fay & Cutler 1977). It is possible that Meringer failed to distinguish between malapropisms as slips of the tongue and 'classical malapropisms', in which the speaker through ignorance confuses two similar sounding words — although even the latter can occur with remarkable persistence in educated speakers (Zwicky 1978).

It had already been established in the literature on word association that the frequency of sound-based associations increased under conditions of fatigue (Aschaffenburg 1896, cited by Murray 1978:xxv). Thumb, however, specifically disagreed with Meringer's claim that fatigue was the usual precipitating factor, although he agreed with Meringer that malapropisms are infrequent; his own hypothesis was that they occur when a speaker is trying to utter a word with particular rapidity. In support of this he cited an association experiment of his own in which the subjects were forced to respond within 400 msec (an interval considerably shorter than the average reaction time in experiments of that kind). Under these conditions the frequency of responses which were associated with the stimulus item purely by similarity of sound rose dramatically in comparison with the unlimited response time condition. Thumb considered that this result confirmed his hypothesis, and he stuck to this position on sound associations in later writings also (Thumb 1911, cited in Murray 1978: xliii).

In the model of the mental lexicon proposed on the basis of evidence from malapropisms by Fay & Cutler (1977), words were conceived to be organised principally in terms of left-to-right similarity of sound, with the semantic access system used by the speech production device having the form of a network in which branching paths represent alternative values of particular semantic features. If one assumes such a model, then the subject's task in a word association experiment can be thought of as (1) accessing the lexical entry for the stimulus word; (2) tracing the semantic path from that entry back to a fork; (3) following another path from that fork; (4) accessing the lexical entry at the end of that alternative path. Thus following a path back from the stimulus word *boy* to the male-female fork might result in the response *girl*, whereas following it to the adult-child fork could produce the response *man*.[2] Under pressure of time the subject might forgo the tracing of semantic paths and simply access any lexical entry which was different from that of the stimulus word. In the Fay & Cutler model, the nearest lexical entry to that of the stimulus word would contain the word which sounded most like the stimulus word. Thus the results of Thumb's association experiment do not conflict with current research on word substitution errors; Meringer's generalisation about the frequency of such errors, however, has not stood the test of time.

Thumb, however, was chiefly concerned to demonstrate with this example that psychological experimentation was an appropriate, and in the long run a better, method of investigating speech errors than was the observational method. It is noteworthy that it was Thumb, the philologist, and not Marbe, the psychologist, who reacted to Meringer's remarks about their joint research, and who sprang to the defence of psychological methods as the best hope for future research. In the light of the realisation of psycholinguistics today that very little has been learned about the speech production process by experimental means, it may seem that Thumb was perhaps over-optimistic about the degree of enlightenment to be expected from experimentation. And certainly not all his contemporaries shared his enthusiasm. In fact, in one review of *Versprechen und Verlesen*, Meringer himself was accused of over-estimating the insights of psychology into the processes underlying speech (G. Meyer 1896:53).

Furthermore, Thumb's reliance on experimentation was criticised by the father of experimental psychology himself, Wilhelm Wundt. In a review of Thumb and Marbe's *Experimental Investigations*, Wundt (1901) praised the linguistic sophistication of this work, but found fault with the experiments. The demands placed on the subject by the particular methodology employed by Thumb and Marbe, Wundt wrote, made it very unlikely that subjects' responses were produced by any processes even remotely resembling the processes at work in spontaneous linguistic analogy. 'For this reason', he continued,

> Meringer and Mayer's observations of speech errors are very instructive, because the conditions underlying individual occurrences are in this case presumably very close to the conditions underlying the more general manifestations in language. But of course this close correspondence would no longer be the case if Meringer and Mayer, instead of collecting involuntary slips, had set up experiments, in which they had, say, presented their subjects with words which they were then required to mispronounce (Wundt 1901:19).

Instead of attempting in vain to reproduce in the laboratory the conditions under which analogical word formation occurs in language, and drawing conclusions about the language from psychological findings, Thumb and Marbe would have done better, Wundt argued, to have drawn conclusions about psychological processes from linguistic phenomena in the manner of Meringer & Mayer.

4.4 In conclusion, it should be noted that Meringer himself was not so devoted to the purely observational method that he did not occasionally adapt his methods of collection in order to test specific hypotheses. For a certain period of time, for instance, he assiduously recorded the age of each speaker whose slips he collected in order to test the hypothesis that the frequency of perseverations increased with age; at another time, he recorded details of rate of speech

so that he could examine the hypothesis that the frequency of errors increased with speech rate. (He rejected both hypotheses however [Meringer 1908:122].) Furthermore, he carried out at least one informal experiment, in which he asked both children and adults, the latter including members of a lecture audience, to name parts of the body which he pointed to. (Only the more common terms were reliably and readily produced [Meringer 1911].)

But it was as an accurate observer that Meringer most prided himself, and what he most condemned in others was the refusal or the inability to observe. As the final word to this section consider his attack — one of his attacks — on Sigmund Freud:

> When in 1895 I asked Carl Mayer to allow me to list him as co-author of *Versprechen und Verlesen* I asked not only out of gratitude for his assistance, but also out of fear that the observations of a mere philologist would carry no weight. This fear was unnecessary, since I find that it is precisely in the ability to observe that Freud is, compared with myself, a blunderer. He sees and hears only that which he can put to misuse in the justification of his fantastic theories. The infinitely many counter-examples which cry out to be considered, these he ignores (Meringer 1911:55).

5.0 *Conclusion*

Meringer's obituary in *Wörter und Sachen*, written by his editorial colleague Hermann Güntert (1932), made no mention at all of the speech error work. In a second tribute to Meringer in the same journal several years later, however, Güntert cited speech errors and 'words and things' as two facets of Meringer's abiding concern for the living language (Güntert 1937). The obituary written by a philological colleague in the daily paper of Meringer's home town of Graz took a similar tone (Reichelt 1931).

In the above sections the reaction of Meringer's philological contemporaries to his research on speech errors has been described. It is clear that this research was, in general, well received at the time, and that the fundamental assumptions which Meringer made, and the major conclusions which he drew, met with widespread agreement. Despite differences of opinion on issues of methodology, and on minor points such as the size of a farmer's vocabulary, Meringer's colleagues appear to have respected his speech error work and to have treated it as an integral part of his overall concern, as a philologist, with the language as a living entity, inseparable from the lives of its speakers. Even Sigmund Freud, who, as we have seen, held categorically different opinions about the implications to be drawn from the study of errors, certainly agreed that they merited serious study. It is, then, all the more amazing that Meringer's work, and the study of speech errors in general, should have spent so long in limbo. From

1908, when *Aus dem Leben der Sprache* was published, decades passed before linguists and psychologists took up the study of errors again. Although in the early 1950s Karl Lashley, with characteristic insight, drew attention to the potential value of linguistic lapses for the study of language production (Lashley 1951), only in the 1970s was his lead — and Meringer's — followed.

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NOTES

1) Citations using single quotation marks are translations from the German or French; they and the long quotations from Wundt (1901) and Meringer (1911) are all the present writer's translations.

2) These are the two most frequent associative responses to *boy* (Postman & Keppel 1970).

REFERENCES

Aschaffenburg, Georg (1866-1944). 1896. "Experimentelle Studien über Asso-ciationen". *Psychologische Arbeiten* 1.209-300.

Baars, Bernard J., Michael T. Motley & Donald G. MacKay. 1975. "Output Editing for Lexical Status in Artificially Elicited Slips of the Tongue". *Journal of Verbal Learning and Verbal Behavior* 14.382-91.

Cutler, Anne & David A. Fay. 1978. "Introduction". New edition of Meringer & Mayer (1895), IX-XL.

Fay, David A., & Anne Cutler. 1977. "Malapropisms and the Structure of the Mental Lexicon". *Linguistic Inquiry* 8.505-520.

Freud, Sigmund (1856-1939). 1901. "Zur Psychopathologie des Alltagslebens (Vergessen, Versprechen, Vergreifen), nebst Bemerkungen über eine Wurzel des Aberglaubens". *Monatschrift für Psychiatrie und Neurologie* 10.1-13, 95-143.

——————. 1916. *Vorlesungen zur Einführung in die Psychoanalyse*. Vol. 1. Leipzig & Wien: Heller.

Fromkin, Victoria A., ed. 1973. *Speech Errors as Linguistic Evidence*. The Hague: Mouton.

—————. in press. *Slips of the tongue, ear, pen and hands*. New York: Academic Press.

von Grienberger, Theodor (1855-1932). 1901. Review of Meringer & Mayer (1895). *Anzeiger für Deutsches Altertum und Deutsche Literatur* 27:89-91.

Güntert, Hermann (1886-1948). 1932. "Rudolf Meringer zum Gedächtnis". *Wörter und Sachen* 14.III-IV.

———+——. 1937. "Vorbemerkung". *Wörter und Sachen* 17.V-VI.

Helbig, Gerhard. 1970. *Geschichte der neueren Sprachwissenschaft*. Leipzig: VEB Bibliographisches Institut.

Heller, Theodor (1869-1935). 1896. Review of Meringer & Mayer (1895). *Zeitschrift für Psychologie und Physiologie der Sinnesorgane* 10.305-306.

Jastrow, Joseph (1863-1944). 1906. "The Lapses of Speech". *Popular Science Monthly*, February, 119-26.

Jespersen, Otto (1860-1943). 1941. *Efficiency in Linguistic Change*. Copenhagen: E. Munksgaard.

Lashley, Karl Spence (1890-1958). 1951. "The Problem of Serial Order in Behavior". *Cerebral Mechanisms in Behavior* ed. by Lloyd A. Jeffress, 112-36. New York: John Wiley & Sons.

Menzerath, Paul (1883-1954). 1909. "Psychologische Untersuchungen über die sprachliche Kontamination". *Zeitschrift für angewandte Psychologie* 2.280-90.

Meringer, Rudolf (1859-1931). 1896. "Entgegnung". *Berliner Philologische Wochenschrift* 16.351-52.

—————. 1900. "Wie man sich versprechen kann". *Neue Freie Presse*, 23 August, 6-7.

—————. 1901. Review of Maurice Grammont (1866-1946), *Là dissimilation consonantique dans les langues indo-européennes et dans les langues romanes* (Dijon, 1895). *Anzeiger für indogermanische Sprach- und Altertumskunde* 12.8-14.

—————. 1908. *Aus dem Leben der Sprache*. Berlin: B. Behr.

—————. 1909. "Wörter und Sachen". *Germanisch-Romanische Monatsschrift* 1.593-98.

—————. 1911. "Zur Aufgabe und zum Namen unserer Zeitschrift". *Wörter und Sachen* 3.22-56. (1912).

—————, & Carl Mayer (1862-1936), 1895. *Versprechen und Verlesen: Eine psychologisch-linguistische Studie*. Stuttgart: G. J. Göschen. (New edition, with an introduction by Anne Cutler and David A. Fay, Amsterdam: J. Benjamins, 1978.)

Meyer, Gustav (1850-1900). 1896. Review of Meringer & Mayer (1895). *Berliner*

Philologische Wochenschrift 16.52-53.

Meyer, Richard Moritz (1860-1914). 1897. Review of Meringer & Mayer (1895). *Anzeiger für indogermanische Sprach- und Altertumskunde* 7.209-14.

――――. 1909. Review of Meringer (1908). *Deutsche Literaturzeitung* 30.151-152.

Murray, David J(ames). 1978. "Introduction". New edition of Thumb & Marbe (1901), XI-LXIII.

Oertel, Hanns (1868-1952). 1902. *Lectures on the Study of Language*. New York: C. Scribner's Sons.

Paul, Hermann (1846-1921). 1880. *Prinzipien der Sprachgeschichte*. Halle a.d.S.: M. Niemeyer. (5th rev. ed., 1920.)

Piquet, Félix (1855-after 1929). 1909. Review of Meringer (1908). *Revue germanique* 5.471-472.

Polle, Konrad Friedrich (1830-1902). 1895. Review of Meringer & Mayer (1895). *Wochenschrift für klassische Philologie* (4 December), col.1349.

Postman, Leo, & Geoffrey Keppel. 1970. *Norms of Word Association*. New York: Academic Press.

Reichelt, Hans (1877-1939). 1931. "Rudolf Meringer zum Gedächtnis". *Grazer Tagespost*, 17 February, 1.

Saling, Gertrud (no dates available). 1908. "Assoziative Massenversuche". *Zeitschrift für Psychologie und Physiologie der Sinnesorgane* 49.238-533.

Scheinert, Moritz Friedrich (1880-19??). 1909. Review of Meringer (1908). *Literarisches Zentralblatt* 60.1335.

Scripture, Edward Wheeler (1864-1945). 1902. *The Elements of Experimental Phonetics*. New York: Charles Scribner's Sons.

Stern, Clara (Joseephy) & William Stern (1871-1938). 1907. *Die Kindersprache*. Leipzig: J. A. Barth.

Stolz, Friedrich (1850-1915). 1903. "Sprachpsychologische Spähne" *Zeitschrift für die österreichischen Gymnasien* 54.491-98.

Streitberg, Wilhelm (1864-1925). 1896. Review of Meringer & Mayer (1895). *Literarisches Zentralblatt* 47.23.

Thumb, Albert (1865-1915). 1910a. Review of Meringer (1908). *Zeitschrift für deutsche Philologie* 42.499-501.

――――. 1910b. "Beobachtung und Experiment in der Sprachpsychologie". *Festschrift Wilhelm Viëtor*, 19-26. Marburg: N. G. Elwert.

――――. 1911. "Experimentelle Psychologie und Sprachwissenschaft". *Germanisch-Romanische Monatsschrift* 3.65-74.

――――, & Karl Marbe (1869-1953). 1901. *Experimentelle Untersuchungen über die psychologischen Grundlagen der sprachlichen Analogiebildungen*. Leipzig: Engelmann. (Reissue, with a replication of Thumb & Marbe's experiments by Erwin A. Esper and with an introduction by David J. Murray,

Amsterdam: J. Benjamins, 1978.)

Wells, Frederic Lyman (1832-1920). 1906. *Linguistic Lapses*. New York: The Science Press.

Wundt, Wilhelm (1832-1920). 1900. *Völkerpsychologie. Bd. I: Die Sprache*. Leipzig: Engelmann.

––––––. 1901. Review of Thumb & Marbe (1901). *Anzeiger für indogermanische Sprach- und Altertumskunde* 12.17-20.

Zwicky, Arnold M. 1978. "Classical Malapropisms". Paper presented to the Linguistic Society of America, 28-30 July, Urbana, Illinois.

SUMMARY

Rudolf Meringer (1859-1931) published two large collections of speech errors, in 1895 and 1908. Although the idea that errors in spontaneous speech might be of linguistic interest did not originate with Meringer, he was the first to produce a large collection of error data and a detailed theoretical analysis of error phenomena. Contemporary reaction to Meringer's two speech error books is analysed in this essay. Firstly, direct comment at the time, which ranged from enthusiastic praise to dismissal of the project as trivial and uninteresting, is analysed; dismissive reactions, it is seen, came from those who were in any case Meringer's opponents on broader issues of theoretical orientation. The following section deals with the correctness of Meringer's analysis of error phenomena, which met its chief challenge at the time from Sigmund Freud's contention that speech errors were interesting for reasons not of linguistics but of individual psychopathology. Thirdly, Meringer's devotion to the observational method is described; this led him into a controversy with contemporaries who preferred the research methods of experimental psychology.

RÉSUMÉ

Rudolf Meringer (1859-1931) a publié deux collections importantes d'erreurs de parole, le premier en 1895 et l'autre en 1908. Bien que l'idée selon laquelle les erreurs dans le discours spontané puissent être d'un intérêt linguistique ne remonte pas à Meringer, c'est lui qui fut le premier à compiler une collection assez vaste de données dans ce domaine et à en faire une analyse rigoureuse. Cet article discute surtout de la réaction aux écrits de Meringer. On fait d'abord une analyse des commentaires directs de l'époque qui vont de la louange enthousiaste jusqu'au rejet du projet comme étant trivial; on remarque que les réactions négatives viennent de ceux qui étaient opposés à Meringer sur des questions plus

vastes de linguistique théorique. La section suivante de l'article traite de l'exacti-
tude de l'analyse des phénomènes d'erreur proposée par Meringer, analyse
risquée et courageuse à l'époque où Sigmund Freud affirmait que les erreurs de
la parole relevaient beaucoup plus de la psychopathologie individuelle que de la
linguistique. L'article se termine avec une description de la méthode empirique
de Meringer, basée sur l'observation, source de controverse avec ceux qui pré-
féraient les méthodes de recherche de la psychologie expérimentale.