

HERMANN EBBINGHAUS AND AMERICAN PSYCHOLOGY:
A HISTORIOGRAPHIC STUDY

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It has been over twenty years, but I can still remember the first presentation I ever heard on Hermann Ebbinghaus. Very much in accordance with the famous Ebbinghaus retention curve, most of the details of that encounter have been forgotten, but the impression it made has persisted. Ever since that first exposure I have carried the same sense of amazement over how one could voluntarily generate the self-discipline necessary to impose the regimen upon himself that Ebbinghaus did in the service of his scientific interest in memory. Like many of you I have seen occasional references to Ebbinghaus over the years which spoke highly of his accomplishments, but I noticed that aside from the acknowledgements, there really didn't seem to be very much actually written about him. I saw the opportunity to contribute to this symposium as a chance to investigate the literature in some depth to learn more about Ebbinghaus and his contributions.

The particular approach I chose was to survey and analyze the manner in which information about Ebbinghaus has been reported in a range of English-Language texts. The specific works examined were american textbooks in the history of psychology and other materials that might be used in a course in the history of psychology. I was curious about the sort of image of Ebbinghaus that would emerge from a systematic look at these sources. To accomplish this objective I first determined: 1) what english-language sources on Ebbinghaus were available; 2) what kind of information has been reported about Ebbinghaus in these sources

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and how often it appeared; and 3) what were the primary source documents that the text writers themselves used in their discussions of Ebbinghaus' life and accomplishments.

I found that the types of sources that contained information on Ebbinghaus included: 1) Reference works (e.g. Corsini, 1984; Sills, 1968; Wolman, 1973; and Zusne, 1984,1975); 2) Books of readings in the history of psychology --both primary and secondary sources-- (e.g. Dennis, 1948; Diamond, 1974; Hearst, 1979; Herrnstein & Boring, 1965; and Watson, 1979); 3) Articles from periodicals (e.g. Postman, 1968; and Shakow, 1930); 4) Original works (Ebbinghaus, 1885/1964; and Ebbinghaus, 1908/1973); and finally, 5) General works and textbooks in the history of psychology, including textbooks. It is from this latter category, general works and textbooks in the history of psychology that I will draw from and discuss in detail for the rest of this paper.

I have examined about fifty sources containing information about Ebbinghaus, and most of these have been general works and texts in the history of psychology. Based on their appearance in directories on the history of psychology (Benjamin, 1981; and Lawry, 1981), recommendations from colleagues, and my own experience, I selected fifteen works from this category to report on here. These include: 1) Boring, 1950; 2) Chaplin & Krawiec, 1979; 3) Esper, 1964; 4) Kantor, 1963,1969; 5) Klein, 1970; 6) Leahey, 1980; 7) Lundin, 1985; 8) Marx & Hillix, 1979; 9) Misiak & Sexton, 1966; 10) Murray, 1983; 11) Roback, 1961; 12) Sahakian, 1975; 13) Schultz, 1981; 14) Watson, 1978; and 15) Wertheimer, 1979.

The procedure followed was first to simply examine each page in each of these works that was referenced under Ebbinghaus's name in the index. I determined whether or not there was a distinct section on Ebbinghaus and then read this for content. I also did a word count for each of these sections and tabulated these for comparisons among the different sources. (Table 1).

As shown in Table 1, Boring's classic work (1950) contained the most extensive coverage with nearly 2700 words. This was followed by Watson (1978) with about 2200 words, and then Misiak & Sexton (1966) and Schultz (1981) which contained approximately 2000 words each. In the last column of the table there appears a listing of the number of additional pages on which Ebbinghaus's name is mentioned elsewhere in the book. Once again, Boring contains the most references to Ebbinghaus (37), followed by Misiak & Sexton (17) and Chaplin & Krawiec (12). Two of the books, Esper (1964) and Klein (1970), did not contain a distinct section of Ebbinghaus.

After the initial reading, I established ten categories of topics and events that were reported in the books, and which I felt provided the best general

summary of what had been written about Ebbinghaus and his work. I later collapsed these ten categories to eight because of overlap and ended up with the following: 1) Early life and education; 2) Personal characteristics and interpersonal relationships; 3) Career and professional activities; 4) Methodological and philosophical position toward psychology; 5) Discussion of the memory research; 6) Discussion of other research activities; 7) Publication record; and 8) Evaluative comments.

I then searched the sections on Ebbinghaus in each of the books for information pertinent to the categories previously established. When such information was found I made a note of it and collated it with the rest of the information in that category from the other books. Table 2 shows which of the 15 sources contained information in a given category. As seen in Table 2, the areas with the least coverage on Ebbinghaus are those on his early life and education, personal characteristics, his career and professional activities, and other research. As might be expected, the areas receiving the most attention were the research on memory, and comments about his approach to psychology.

After collating the notes from each source in a given category, I also found a few minor discrepancies in the way some events were reported. Rather than report on each of these now, however, I would like to pull together a composite of his life drawn from the 15 sources. In the course of this description I will point some of the problem areas.

Figure 1 (the "Lifeline" for Ebbinghaus) is an attempt to provide a chronological perspective and listing of some of the major periods and events in Ebbinghaus's life. Again, this illustration and the following account was constructed from the information reported in the 15 general works and textbooks in the history of psychology that I have listed above and in the tables.

As indicated in Figure 1, there is virtually nothing reported about Ebbinghaus's early life up to about the age of 17. We are told only that he was the son of a merchant in the town of Barmen where he attended the Gymnasium and was reared in the Lutheran faith. He began university studies at Bonn in 1867 and studied at Berlin and Halle up to about 1870, at which time he served in the army during the Franco-Prussian war. After a year he returned to Bonn and was awarded his Ph.D. on August 16, 1873. According to Boring (1950, p. 387) Ebbinghaus spent the next two years in Berlin; however, Shakow (1930, p. 510) tells us that we only know he planned to go to Berlin, and we don't know if in fact he did. During the years 1875-1878 Ebbinghaus studied independently and traveled in England and France. Sometime during this period he saw Fechner's book on psychophysics. It is generally reported that this occurred in Paris, but this location has been recently challenged (Traxel, 1985). In 1879 Ebbinghaus served

as a tutor, and also did the classic work on memory during that year and the next.

In 1880 he became a dozent at Berlin, and in 1883-84 replicated the experiments on memory. This typical thoroughness is well expressed in the following quotation attributed to Ebbinghaus:

the individual has to make innumerable studies for his own sake. He tests and rejects, tests once more and once more rejects. For certainly not every happy thought, bolstered up perhaps by a few rough and ready experiments, should be brought before the public. But sometimes the individual reaches a point where he is permanently clear and satisfied with his interpretation. Then the matter belongs to the scientific public for their further judgment. (Quoted by Woodworth, 1909, p 255, and cited in Shakow, 1968, p. 326)

This curious attitude is perhaps responsible for the fact that Ebbinghaus published relatively little. Shakow (1930) lists only 44 items in Ebbinghaus's bibliography, and a number of these are revisions of earlier works. He was however, very actively involved in professional writing through the journal he founded with König in 1890 (Zeitschrift für Psychologie und Physiologie der Sinnesorgane) and edited for twenty years.

The work on memory was published in 1885 in his classic book, Über das Gedächtnis (On Memory), and the next year he was promoted at Berlin. The rank to which he was promoted has been variously reported as associate professor (Boring, 1950, p.338; Wertheimer, 1979, p.79) and as assistant professor (Watson, 1978, p.305; Schultz, 1981, p.75). Shakow (1968) also suggests he was promoted the same year as On Memory was published, but others say it was 1886. Perhaps Shakow meant the same academic year.

Among his other accomplishments, Ebbinghaus founded a laboratory at Berlin in 1886 (Misiak & Sexton, 1971); and later also founded a laboratory at Breslau in 1894, and expanded the lab at Halle in 1905. In 1895 he served on a commission appointed to investigate possible problems with fatigue in school children as a result of holding longer sessions. This experience resulted in a completion test in 1897 which was found to correlate well with student performance. 1897 also saw the publication of the first half of Volume I of Grundzüge der Psychologie (Principles of Psychology) --the rest of Volume I was published in sections and was completed by Durr in 1913 after Ebbinghaus's death in 1909. Another important book Abriss der Psychologie (A Summary of Psychology) was completed in 1908 and went through a number of editions. It is this latter work that contains the famous quotation: "Psychology has a long past, but only a short history".

In addition to learning more about his many accomplishments, I was also interested in Ebbinghaus's personal qualities. I found him described as having a "radiant personality" and as being "practically the antithesis of Wundt" (Roback, 1961, p. 83). He is described by Misiak & Sexton (1971, p. 92) as "kind", "tolerant", having "genuine interest", being "independent", "an excellent lecturer", "calm", and having "leadership". Shakow reports (1968) that he had no mentor or disciples, and Boring (1950, p.392) tells us he had "no pupils of importance". Boring also says (1950, p.391) that the "key to his place in the history of psychology is his personality".

Conclusion

In this brief discussion on Hermann Ebbinghaus I have tried to show that the presentation one finds in american texts usually gives only a very selective glimpse of the man. Even when a composite is drawn from multiple sources we are left with substantial gaps in our knowledge of his life (for example there was no mention in any of the references discussed above of his wife or family). Most of the materials I examined used relatively few sources, and many relied heavily on Boring. There is obviously a need for additional research using primary source materials such as archival data. I am pleased to note that such research is now being conducted and hope that this symposium might contribute to it.

RESUMEN

En este artículo se analiza la visión que de Ebbinghaus ofrece un amplio grupo de manuales americanos de Historia de la Psicología. Para cumplir este objetivo determina en primer lugar el tipo de fuentes en lengua inglesa sobre Ebbinghaus que utilizaron; en segundo término, analiza el tipo de información que ofrecen esas fuentes; y, por último, precisa cuales fueron los documentos primarios que utilizaron para presentar la vida y logros científicos de Ebbinghaus.

SUMMARY

This article goes through Ebbinghaus's views offered by a wide range of american History of Psychology Textbooks and other sources often used in historical courses. Primary sources and english sources employed and the kind of information collected, are taken into account in this evaluative review.

Figure 1. "Lifeline" for Ebbinghaus

Hermann Ebbinghaus
January 24, 1850 - February 26, 1909

Year	Age	
1850	0	- Born Jan. 24, 1850 (Barman, Germany).
1855	5	
1860	10	
1865	15	- Attended the Gymnasium at Barman.
1870	20	- 1867-70, study at Univ. Bonn, Univ. Berlin, Univ. Halle. - 1870-71, joined army, Franco-Prussian war.
1875	25	- Aug. 16, 1873, Returned to Bonn, completed Ph.D. 1873-75 ? - 1875-78, student (England, France). Saw Fechner's <u>Elements</u> . - 1879 tutor of Prince Waldemar; memory, preliminary work.
1880	30	- -----Became Dozent. <u>Univ. of Berlin 1880-94</u> .
1885	35	- 1883-84, Replicated memory studies. - 1885, <u>Über das Gedächtnis</u> ; 1886, Associated Professor.
1890	40	- 1890, Founded <u>Zeitschrift</u> , with König. - 1894, Moved to Breslau as full professor.
1895	45	- ----- <u>University of Breslau 1894-1905</u> .
1900	50	- 1897, Completion Test; <u>Grundzüge</u> (first half of vol. I).
1905	55	- 1902, <u>Grundzüge</u> (vol. I). - ----- <u>University of Halle 1905-09</u> .
1910	---	- 1908, <u>Abriss der Psychologie</u> . Died Feb. 26, 1909.

Table 1 Number of Words in Section Written about Ebbinghaus, and Number of Additional Pages that Mention his Name

<u>Source</u>	<u>Total Pages</u>	<u>Distinct Section on Ebbinghaus</u>	<u>Total Number of Words in Ebbinghaus Section</u>	<u>Number of Additional Pages that Mention Ebbinghaus</u>
Boring (1950)	745	yes	2.676	37
Chaplin & Krawiec (1979)	615	yes	1.716	12
Esper (1964)	355	no	-----	3
Kantor (1963/69)	387 (vol I) 415 (vol II)	yes (vol II)	262	8
Klein (1970)	882	no	-----	6
Leahy (1980)	416	yes	601	5
Lundin (1985)	395	yes	494	2
Marx & Hillix (1979)	496	yes	559	10
Misjak & Sexton (1966)	476	yes	2.029	17
Murray (1983)	406	yes	1.292	11
Roback (1981)	403	yes	491	3
Sahakian (1975)	480	yes	1.585	5
Schultz (1981)	409	yes	2.014	2.
Watson (1978)	627	yes	2.213	11
Wertheimer (1979)	162	yes	732	8

Table 2

Sources that Contain Information about Ebbinghaus in a Given Category

	<u>Early Life & Education</u>	<u>Personal Characteristics & Interpersonal Relationship</u>	<u>Career & Professional Activities (Excluding Research)</u>	<u>Methodological Position</u>	<u>Discussion of Memory Research</u>	<u>Research Other than Memory</u>	<u>Publication Record</u>	<u>Evaluative Comments</u>
Boring (1950)	X	X	X	X X	X X	X	X X	X X
Chaplin & Krawiec (1979)								
Esper (1964)						X		X
Kantor (1963/69)		X		X	X X X X			X X X X
Klein (1970)				X X X X	X X X X		X	X X X X
Leahey (1980)				X X X X	X X X X			X X X X
Lundin (1985)		X		X	X			X
Marx & Hillix (1979)			X		X	X	X	X
Misiak & Sexton (1966)		X	X	X	X	X	X	X
Murray (1983)	X		X	X	X X	X X	X	X
Roback (1961)	X	X	X	X X	X X	X X	X X	X X
Sahakian (1975)	X			X X	X X	X X	X X	X X
Schultz (1981)	X	X		X	X X	X X	X X	X X
Watson (1978)	X		X		X	X	X	X
Wertheimer (1979)		X						

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