

95. Köhler, 1971 chap.3 (first published 1960).

96. 1971 pp.80-81. C.f. Kaufman, 1974 p.8.

97. Köhler, 1971 p.71. Köhler does not consider 'epiphenomenalism' (the view that the brain can affect the mind, but not vice versa) which might appear even more in conformity with the theory of isomorphism than is parallelism. However, such a doctrine would clearly also imply the rejected 'emergence', and perhaps run into other difficulties besides.

98. Köhler, 1971 p.81.

99. 1978c p.249.

100. 1949.

Notes to SI.0.1.

1. Solso, 1979 p.5.

2. Shannon, 1948.

3. Neisser, 1967 pp.7-8.

4. On Bartlett and imagery see Kessel [1972].

5. See Richardson, 1976 p.ix.

6. Holt, 1964 (an earlier version was read to division 12 of the American Psychological Association in 1962).

7. Cohen, 1979 - and of course see Skinner, 1948, 1972.

8. Holt, 1964 p.257.

9. Holt, 1964 p.261.

10. Holt, 1964 p.257.

11. Bexton, Heron & Scott, 1954 p.70.

12. Bexton, Heron & Scott, 1954 p.73.

13. See e.g. Penfield, 1958.

14. The use of "revolution" here seems to owe nothing to Kuhn but is rather based on an explicit analogy with the political American Revolution of 1776. Hebb, we should note, is Canadian. Neisser's [1972b] 'post-revolutionary' title "A Paradigm Shift in Psychology" presumably is indebted to Kuhn. It is notable that Neisser

saw fit to give this title to what is, in fact, a review of three books on imagery (those by Richardson [1979], Segal [1971a] and Paivio [1971]).

15. Hebb, 1960 p.736.

16. Taken from the economist Kenneth Boulding [1956].

17. Miller, Galanter & Pribram, 1960 pp.17-18.

18. Mowrer, 1960a,b.

19. Mowrer [1960b pp.286-7; 1977 p.317].

20. Osgood, 1952, 1953.

21. Mowrer, 1960b pp.164-5.

22. Mowrer, 1977 p.203.

23. I have very rarely come across references to this work of Mowrer in the Cognitive Psychology literature. However, see Mowrer [1977 pp.319-23], and McMahon [1973 pp.483ff], who places Mowrer explicitly in the Aristotelian tradition.

24. Sperling, 1960. The term "iconic memory" or "the icon" is due to Neisser [1967 chap.2].

25. 1970 p.569.

26. Neisser 1976 p.48.; Haber, 1983.

27. Long, 1980; Sakitt, 1975; Long & Sakitt, 1980.

28. See the comments printed with Haber's [1983] article.

29. I take this dating from the remarks of Segal [1971b p.77]. Her initial studies, on her own account, were not too successful, and the first published result did not come until 1964 [Segal & Nathan, 1964].

30. Perky, 1910 p.429.

31. Owing to the limitations of the contemporary technology the apparatus used was very makeshift, and required two people, working in close coordination but in silence and near darkness to operate it [Perky, 1910 p.429]. On one occasion a stray flash of light escaped, and the subject (a 10 year old boy) realized what was happening [Perky, 1910 p.431]. On another occasion the slide was left in place, and not wobbled, after the appropriate time, and the subject (a trained introspector) decided that it was "more permanent and distinct than an image" [Perky, 1910 p.433].

32. Perky, 1910 p.450.
33. Segal, 1971b p.70.
34. Segal, 1971b pp.74-6.
35. Perky, 1910 p.433.
36. Segal, 1971b p.70.
37. Segal, 1971b pp.77.
38. Segal & Nathan, 1964.
39. Segal & Glicksman, 1967. (But perhaps some of the subjects had been "turned on" by this time.)
40. Segal [1971b pp.77ff] reviews this work.
41. Segal, 1971b pp.91-2. A more detailed review of this aspect of her work is given by Segal [1972].
42. Segal & Fusella, 1970.
43. Segal & Fusella, 1971.
44. Bugelski, 1977 p.245.
45. See Ebbinghaus in Watson [1979 pp.142ff] - original German 1885.
46. 1971 p.1.
47. Bugelski, 1977 p.245; Miller, Galanter & Pribram, 1960 p.134.
48. E.g. by Bugelski [1970 p.1009]. The fact that it also involves a rhyme mnemonic, and rhyme mnemonics and other purely verbal memory aids in general, has, to the best of my knowledge, still received very little attention from psychologists.
49. Miller, Galanter & Pribram, 1960 pp.135f..
50. Yates remarked [1966 p.1n] that heretofore the history of mnemonics had been "curiously neglected". Could this be yet another symptom of academic iconophobia?
51. Luria, 1960.
52. Luria, 1968. Shereshevskii's feats of memory did not all employ the method of loci, or necessarily any special method at all, but they all seem to have involved imagery. (Not all cases of exceptional memory ability seem to depend on exceptional imagery, however [see Neisser, 1982 pt.VII].)
53. Ross & Lawrence, 1968. I am not claiming any

special historical significance for this study.

54. See Bower & Winzenz, 1970. Much of this large volume of work is reviewed by Paivio [1971] and by Richardson [1980].

55. Segal, 1971a.

56. Paivio, 1971.

Notes to SI.C.2.

1. 1970.

2. Nappe & Wollen [1973] and Hauck, Walsh & Kroll [1976], for example, found that using bizarre images did not improve memory performance any more than using more ordinary images (in the second experiment this was true even after five days), and the bizarre images suffered the disadvantage of taking longer to form than the others. However, Neisser [1976 p.140] suggests that this may be merely the result of the fact that, for the naïve subjects normally used, the nature of the task and the experimental setting itself may make things seem bizarre enough to be memorable, even when the images themselves are quite ordinary. It might be different for habitual users of image mnemonics. A few workers [e.g. Andreoff & Yarmey, 1976; Merry & Graham, 1978; Webber & Marshall, 1978] have found positive effects of bizarreness in some circumstances. As far as I know the issue is still in dispute, although the consensus seems to be against bizarreness being of real importance. Richardson [1980 pp.72-3] and Morris & Hampson [1983 pp.249-50] provide brief reviews of the matter.

3. 1967.

4. In "recognition memory" experiments the subject is first exposed to a number of items (words, pictures, sentences or whatever) and later has the task of picking out items seen before from amongst "distractors", items of a similar type but not previously presented.

5. 1971.

6. Paivio, Yuille & Madigan, 1968.

7. Paivio, 1971 p.79f. The exceptions were words like "ghost" and "anger" (both high imagery yet low concreteness), and "antitoxin" and "armadillo" (concrete but hard to image).

8. Paivio, 1971 p.202. This pattern of findings is not, in fact, restricted to 'free recall' experiments but is found also in 'recognition memory', 'paired associate learning' etc..