

38. Ryle, 1971 p.193 - original French 1962.
39. Ryle, 1971 p.193.
40. Ryle, 1971 p.194.
41. Ryle, 1971 pp.193-4.
42. Ryle, 1949 pp.191,228f..
43. See Ryle, 1949 p.211.
44. Or otherwise acting as if one has seen it. Someone might pretend to see a dragon by saying that they see it, or by cringing away, but such activities provide neither necessary nor sufficient criteria for saying that they have visualized it.
45. 1966.
46. See e.g. Gregory, 1972; Gibson, 1966 chap.2.
47. Gregory in particular, but not alone, has persistently characterized Gibson as proposing a **passive** theory of perception [e.g. Gregory, 1972, 1974, 1981 p.373.]. The reasons (not all bad ones [see Ben-Zeev, 1981 p.138]) behind such persistent misinterpretations of Gibson are explored, most illuminatingly, to my mind, by Bickhard & Richie [1983]. However, there does seem to be a real difference between how Gregory and Gibson conceive of action. Gregory conceives it as essentially mental and Gibson as primarily bodily.
48. Gruber, 1967 p.937.
49. Gruber, 1967 p.937.
50. Gruber, 1967 p.942.
51. Gibson notwithstanding.
52. Rather like Gibson.
53. 1966 pp.172f..

**Notes to §II.D.2.**

1. Neisser, 1967 p.139.
2. Yarbus, 1967 chap.3.
3. Yarbus, 1967 p.115.
4. Yarbus [1967 chapter 3]. Steinman, Cunitz,

Timberlake & Herman [1967] challenge this conventional wisdom in that they claim that if a subject is told to "hold" the eye steady rather than to "fixate" a point then the drifts and microsaccades can be largely eliminated. However, even if this rather peculiar result is correct it makes little difference in most respects. No-one suggests that one can make microsaccades or drifts at will, as one can with large saccades.

5. Pritchard, Heron & Hebb, 1960; Pritchard, 1960; Heckenmueller, 1965; Yarbus, 1967 chap.2.

6. 1967 chap.7.

7. 1982.

8. 1975 pp.29-31.

9. Yarbus, 1967 p.7.

10. Neisser, 1967 pp.139-140.

11. Neisser, 1967 pp.139f..

12. Neisser, 1967 p.146.

13. 1968, 1970.

14. 1968, 1969.

15. Hochberg, 1968 p.330.

16. Hochberg, 1968 p.330. C.f. Hochberg, 1970 p.116.

17. Hebb, 1949. In fact, brief suggestions about imagery along much the same lines as in Hebb's later work [1968] were to be found even in this early book [Hebb, 1949 pp.34-37], which might well have had a significant influence on the thinking of Hochberg and Neisser.

18. Hebb, 1968 p.470.

19. Hebb, 1968 p.470.

20. 1970. Noton [1970 \$X], who is actually an electrical engineer rather than a psychologist, cites the views of Hebb [1949], Hochberg [1968] and Neisser [1963b] as precursors of his own theory.

21. 1976a pp.22-3.

22. Noton, 1970 p.349.

23. According to Kaufman & Richards [1969] spatial attention shifts can take place without eye movements. Posner [1980] even claims that it is possible for saccades to coincide with shifts of attention in a quite different

direction.

24. Noton, 1970 p.350.
25. Noton, 1970 p.351.
26. 1970 p.352.
27. 1971a,b. Further results along the same lines are reported by Stark & Ellis [1981].
28. Janssen, 1976a pp.22f..
29. 1983a pp.115-6.
30. Unpublished - discussed by Marks [1977 pp.283-4].
31. Marks, 1973a.
32. 1970 §V.
33. Janssen, 1976a p.23. Emphasis in original.
34. See, e.g., Klatzky, 1980 pp.11-12; Peterson & Peterson, 1959.
35. Janssen, 1976a p.25.
36. 1984.
37. Janssen, 1976a p.25.
38. See, e.g., Piaget & Inhelder, 1956, 1971.
39. See, e.g. Zinchenko, 1966; Zinchenko & Vergiles, 1972; Wekker, 1966.
40. Although Yuille & Catchpole [1977] make an attempt to combine insights drawn from Piaget and from Paivio.
41. 1976 chap.10 - original French 1972.
42. 1974, 1976.
43. Baylor, 1972; Moran, 1973. See §II.C.2 above for discussion of this work.
44. 1973.
45. Chapter II.C above.
46. Farley, 1974.
47. Kosslyn [1980 pp.129-130] is the only published discussion of Farley's work of any length at all which is known to me. Pinker & Kosslyn [1983 p.51] give Farley a

bare mention under the heading of "older" "propositional theories", and treat Moran's work as paradigmatic of such theories. Moran himself [1973 p.167] attempts to minimise the differences between his model and Farley's, while Farley [1974 pp.276-7] insists on the differences.

48. Farley, 1974 pp.16-17.

49. Farley did make some measurements of actual eye movements [Farley, 1976 pp.477-9], but he appears not to have made direct use of these in constructing his simulation.

50. 1968pp.319f.. See Farley [1976 p.476].

51. Farley, 1976 p.482.

52. Farley, 1976 p.488.

53. Farley probably does, in fact, believe that it is proper to equate such states with mental representations. The point is that he need not do so. I have tried to explain why we should not do so in §II.C.5.

54. 1983. See especially pp.4-5.

55. And thus constituent of rather than used by the agent.

56. E.g. Roffwarg, Dement, Muzio & Fisher, 1962. "Scanning" is not, of course, used here in the sense in which it is used by Kosslyn (see §I.C.4 above). Here it is more or less just a synonym for "looking at".

57. Zikmund, 1972 p.369.

58. 1972.

59. Yarbus, 1967 pp.159-161.

60. 1964.

61. 1964.

62. See, e.g., Brown, 1968.

63. 1972 pp.371-8.

64. 1973b.

65. 1968.

66. 1967.

67. Marks, 1973a.

68. Marks, 1973b.

69. Hebb [1968 p.470]. The claim seems to have been made on purely introspective grounds.

70. Ryle, 1949 p.255.

71. 1932.

72. Jacobson, 1932 p.690.

73. 1964 p.251.

74. To use Neisser's [1967 p.139] expression.

75. Farley, 1976 p.482.

76. 1976a pp.2,21.

77. §I.C.2.

#### Notes to §II.D.3.

1. E.g. Gregory, 1972.

2. E.g. Gibson, 1966 chap.2; Gibson, 1979 p.149.

3. E.g. Gregory, 1972, 1974a, 1981 p.373.

4. The only direct discussion of Gregory's views by Gibson which I know of is in a brief semi-popular article co-written with his wife [E.J. & J.J. Gibson, 1972]. The type of theory which Gibson represents is very much associated with his name, but Gregory is used here merely as a convenient representative of the 'classical' approach to perception, which goes back at least to Helmholtz [1862], or even to Berkeley [1709]. The whole corpus of Gibson's work since about 1950 can be seen as an attack on this sort of approach.

5. E.g. Gregory, 1970 pp.61,14; 1974b; 1977 pp.13,224; 1981 pp.395f.. A similar position was earlier suggested by Bruner & Goodman [1947].

6. Gregory, 1977 pp.13-14. Emphasis in original.

7. See, e.g., Gregory, 1977 p.224.

8. E.g. Gregory, 1970 p.61, 1974b,c, 1981 pp.395f..

9. See Gregory, 1981 p.4.

10. Gregory, 1981 pp.400-401.

11. Juhasz, 1969; Sarbin & Juhasz, 1970; Sarbin, 1972.