

20. See §I.A.1 above.
21. 1866 bk.II pt.III §11 - see §I.A.1 above.
22. 1971, p.500.
23. 1978 essay 5; see also Lycos, 1964.
24. Although Aristotle does provide grounds for this reading [Juhasz, 1971 p.54]. (My note.).
25. Juhasz, 1971 p.55.
26. Juhasz's sense is looser.
27. Also, according to Casey [1971 p.477], Leonardo da Vinci refers to "the mind's eye" in a relevant context.

Notes to §II.A.3.

1. Descartes, 1649 Arts. 31-4.
2. Rolleston & Jackson, 1888 p.343n.
3. 1664.
4. Descartes, 1664 - trans. pp.84-6.
5. 1664 trans. p.87.
6. Descartes, 1664 trans p.86 - Descartes' own emphasis.
7. Descartes, 1628 - Rule XII; although here he speaks of the "common sense" as being the seal impressing the image, during perception, on the wax of the "fancy or imagination", as if he regarded them as separable faculties
8. 1664 trans. pp.87-90.
9. see Descartes, 1664 trans. pp.95-6.
10. 1649 Arts.XX, XXI.
11. 1644 trans. pp.288-9.
12. Descartes, 1641 p.115.
13. Written, as part of *Le Monde*, early in Descartes' career but suppressed before imminent publication in 1634, when he became aware of Galileo's condemnation by the inquisition, because of the full work's Copernican notions [Fancher, 1979 pp.18-19].
14. Descartes, 1637 V trans. pp.245-6.

15. 1637 IV trans. p.244.

16. Descartes, 1637 VI trans. p.246.

17. In his *Cerebri Anatome* of 1664 Thomas Willis produced an influential account of vision and imagination with more accurate anatomical detail than that of Descartes, and more in accord with the Boylean atomism which then prevailed in England. He seems to have held a dualist theory of mind in the Cartesian mould, but the pineal gland was rejected as the site of interaction since he had discovered from his own dissections that Descartes was mistaken in his belief that this structure is unique to man. Instead he ascribed sense to the impression carried by the animal spirits to the *corpora striata*, and imagination to that carried to the *corpus callosum* [Frank, 1976]. None of this ought to make much difference from our point of view.

18. Engell, 1981; Warnock, 1976.

19. Kant, 1781 trans. p.183.

20. Perhaps Hobbes is closer still to the occasional physiological hints dropped by Aristotle, but not, I think, to the spirit of Aristotle's account.

21. Hobbes, 1651 chap.1.

22. 1656 chap.XXV 2.

23. *De Iuventute* 468b.

24. *De Anims* 428b.

25. Hobbes, 1650 chap.2.

26. Hobbes, 1656 chap.XXV 7.

27. Hobbes, 1656 chap.XXV 7; c.f. 1651 chap.2. Rees [1971 p.194] remarks the similarity of this to Aristotle's *Rhetorica* [1370a].

28. 1700 bk.IV chap.3 §6.

29. See Haynes [1976] for an attempt at a metaphysically neutral characterization of imagery; then see Franklin [1978] for a knockdown refutation of it.

30. Mandelbaum, 1964 chap.1.

31. Locke, 1700 p.7.

32. I.e. "animal spirits".

33. Locke, 1700 Bk.I chap.I §2.

34. This would not have been his terminology, of course.

35. We have seen "idea" and "image" equated by Descartes. Locke did the same at the start of the first draft of his *Essay* [quoted by Mandelbaum, 1964 p.2], although he subsequently sticks to "idea". According to Urmson [1982 p.10] "idea" was synonymous with "picture" in 17th century England and France. It is often said [e.g. Pringle-Pattison, 1924 p.302n; Urmson, 1982 p.10] that Locke did not always equate ideas with images. This is because Berkeley [1734 Introduction] showed that "general ideas" cannot be pictorial images, and Locke, unlike his successor, firmly believed in general ideas and yet was not entirely insensible to the difficulties Berkeley was to raise [see Locke, 1700 Bk.IV chap.7 §9]. However, when we consider that even with an Empiricist theory of perception, the representation of general ideas by images is not absolutely beyond defence [see Price, 1953 chap.9], we may wonder if so reading Locke in the light of his successors is not somewhat ahistorical. Berkeley and Hume certainly do seem to fully equate "idea" and "image": Berkeley's argument depends on ideas being picturelike, and Hume defines ideas as images of "impressions" on page one of his *Treatise* [1739]. No doubt "idea" and "image" have subsequently drifted apart; this may help to explain why the theory of imagery can again be broached by the 20th century. But, together with the post-Lockean demarcation between science and philosophy this also means that contemporary discussion pays little heed to the epistemological problems that phantasia was originally conceived of to solve, or to the setbacks that project has encountered.

36. 1739 p.207.

Notes to §II.B.1.

1. The term "quasi-pictorial" is his own [e.g. Kosslyn, 1978a; 1980], and he is not averse to explicit talk of the "mind's eye" [e.g. 1978b].

2. E.g. Turing, 1950.

3. Like many others of similar views Kosslyn is wary of asserting that computers can actually be conscious, rather than just that they can potentially reproduce the functional structure of the mind. Consciousness is thus seen as an epiphenomenon of the functional processes, realised when they take place in neural tissue but perhaps not when they take place in copper and silicon [see Kosslyn, 1983 p.27]. However, we are here using "consciousness" in a functional sense (I believe it always should be so used) to mean that which is cognizant of the image. In this sense Kosslyn does believe in the