Myths of Meaning: Response to Reese (1994)

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Reese (1994) constructs an essential meaning for classical teleology that will mislead any reader who accepts it. Extracting from the definitions of a collegiate dictionary and adding defining features of his own, Reese states, "These meanings have in common (a) the concept of purpose as final cause, which requires reversal of time (the future determines the present) and (b) the location of purpose in nature. This is the classical sense of teleology" (p. 76). For support, Reese cites Mayr (1982), but Mayr does not support this sense. Further, Mayr (1992) says,

None of the three recognized teleological processes work backwards from a future goal, there is no backwards causation. This refutes the formerly frequently made claim of a conflict between causal and teleological explanations. Such a claim might be true if cosmic teleology existed, but it is invalid for the three kinds of teleology now accepted by science. (p. 134)

As for cosmic teleology—what Reese (1994) also calls grand-design or classical teleology, which he finds in Aristotle (pp. 77, 88)—Mayr (1992) rejects its identification with Aristotle:

Greene is entirely correct when pointing out that Aristotle's *telos* has nothing to do with purpose either Man's or God's. It was the Judaeo-Christian God who (with the help of neo-Platonism) imposed the dominance of a cosmic teleology upon Aristotelian nature. Such sweeping purpose is the very opposite of Aristotelian [philosophy]. (p. 121)

In Aristotle's (1984) classical use of teleology in terms of end or final causes, "that for the sake of which, or the end, belongs to the same department of knowledge as the means" (*Physics*, II, 194a28–29). Aristotle described ac-

tions with deliberation (*Eudemian Ethics*, II, 1227a6–30), actions without deliberation (*Physics*, II, 199a20–29), and the functions of "instruments" and "bodily members" (*Parts of Animals*, II, 645b15–16) in terms of ends or "that for the sake of which." These usages do not imply an essential meaning of "reversal of time" and "purpose in nature."

Reese's (1994) sense of classical teleology is closer to The Argument from (or to) Design than to Aristotle. The Argument commonly employed end or final causes in a specialized sense—*divine* final causes—in claiming that apparent order (or designs) in nature can be explained if designed by a supernatural being. This may be the source of Reese's "purpose in nature." Classical versions of this argument occur in Xenophon (1990, p. 90) and Cicero (1972, pp. 159–163), but not in Aristotle (Ferré, 1973, p. 672). Later, this argument was seen to interfere with more effective explanations of natural order, and its use in natural philosophy was opposed (De Angelis, 1973). Schoenfeld (1993) gives a modern, sympathetic account of The Argument:

To a scientific mind, the order it observes in nature would ultimately be the reason, if there be reason at all, for a belief in God. . . . The natural order seems the product of design, and where there is design, a Designer is required. (p. 82)

The issue is whether the empirical evidence justifies an inference of supernatural agency. The Argument does not claim that the order in nature exists before that agency.

Arguments from consequences to a hypothesis that would explain the consequences have been termed the fallacy of affirming the consequent when offered as conclusive proof; they have been termed *abductive*, as well as *re-*

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troductive or *hypothesis*, when offered for further inquiry or useful action (cf. Chiesa, 1994, pp. 49–52; Hanson, 1970; Laudan, 1981, pp. 114–115; Peirce, 1963, 5.270–5.282; Pelto & Pelto, 1978, pp. 252–254). If The Argument from Design was reconstructed by opponents into a conclusive syllogism, the syllogistic procedure of affirming a consequence deduced from antecedents could be seen as reversed and invalid. Further reconstructions may have led to claiming time reversal for teleology (which was equated with The Argument in some contexts). This may be the source of Reese's "reversal of time." Such claims are inaccurate precisely to the extent that they are not based on the contingencies of actual usage.

Frequently ignoring the contexts for words, Reese often misrepresents what is written, by myself and others. Ignoring a cited instance, Reese (1994, p. 86) objects to the idea that Newton required action by contact for gravity. But Newton (cited in Cajori, 1934) says,

That gravity should be innate, inherent, and essential to matter, so that one body may act upon another at a distance through a vacuum, without the mediation of any thing else, by and through which their action and force may be conveyed from one to another, is to me so great an absurdity, that I believe no man, who has in philosophical matters a competent faculty of thinking, can ever fall into it. (p. 634)

Consistent with this view, Newton proposed a search for an ethereal medium called the *ether* (see Questions 18–24 of his *Optics*, cited in Thayer, 1953, p. 144).

Illustrating another characteristic of his approach to meaning, Reese (1994) refers to some interpretations of classical teleology and says that "the time-reversal problem disappears, because the 'teleology' is no longer teleological in the classical sense" (p. 78). Referring to Rachlin's (1992) "teleological behaviorism," Reese says, "I do not see evidence of teleology in his approach" (p. 86). In other words, when Reese encounters a sense of teleology

that disconfirms his sense of teleology, he feels free to claim that it is not teleology. Such claims are consistent with the view that there is an essential "true" meaning of a word distinct from the actual uses of the word. This essence can then be maintained even if the word is never used in its so-called "true" meaning. Such essentialist approaches to meaning have been widely rejected (cf. Malcolm, 1986, pp. 236–241; Robinson, 1950, pp. 153–156; Schiappa, 1993; Skinner, 1974, p. 92, 1988, p. 412; Wittgenstein, 1958, pp. 2–4).

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