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Aristotelian Essentialism

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[Aristotelian essentialism] is the doctrine that some of the attributes of a thing (quite independently of the language in which the thing is referred to, if at all) may be essential to the thing and others accidental. E.g., a man, or talking animal, or featherless biped (for they are all the same things), is essentially rational and accidentally two-legged and talkative, not merely qua man but qua itself.

W. V. Quine, [1966], 173-74

Quine does not actually say that what he calls "Aristotelian essentialism" is Aristotle's own doctrine, i.e., that it is Aristotle's essentialism. Nor does he make any reference, in discussing "Aristotelian essentialism," either to Aristotle's own writing or to any commentaries on Aristotle's writing. On the other hand, he does nothing to warn his readers that the doctrine he is discussing may be only Aristotle-inspired and not the real thing; so I shall take what Quine says as an attempted explication of Aristotle's own doctrine. Moreover, in this essay I shall myself mean by 'Aristotelian essentialism' Aristotle's own teaching on this subject, whatever it was.

According to anybody's essentialism, presumably, some of the attributes of a thing are essential to it, others not. To know what so-and-so's essentialism comes to, we need to know what an essential attribute is, according to so-and-so. In the next sentence after the quotation above, Quine makes clear that, on his understanding of 'Aristotelian essentialism', an essential attribute is simply a *necessary* one. If we follow the modern and quite un-Aristotelian practice of using 'property' in place of Quine's (historically preferable) expression, 'attribute', then we come up with this definition of 'essential property':

p is an essential₁ property of x =df regardless of how x is specified (if at all), x necessarily has p .

According to Ruth Marcus [1971], “Aristotelian essentialism takes it that, if anything is a man or a mammal, it is so necessarily.” (190) Her discussion suggests this definition:

p is an essential₂ property of x =df p is an essential₁ property of x and anything that has p has p necessarily.

M. J. Cresswell [1971] says about a related notion, a “*per se* property,” that if it were not the case that a property could be *per se* of one individual and *per accidens* of another, “few interesting properties could ever hold *per se* of their subjects.” (93) The implication of Cresswell’s discussion is that Aristotelian essential properties are essential₁ but not essential₂ properties, whereas according to Marcus’s characterization of Aristotelian essentialism, all essential properties are essential₂. At stake here might be whether, for example, being red-eyed could be an essential property of a bird of a certain kind (a black-capped vireo, say) though only an accidental property of, for example, human beings.¹

In an influential article, “Why Settle for Anything Less than Good Old-Fashioned Aristotelian Essentialism,” Baruch Brody [1973] attempts to characterize Aristotelian essentialism by the following comparison with David Kaplan’s essentialism and Alvin Plantinga’s essentialism:

What properties does an object have essentially? I want to contrast three possible answers to this question: (1) it has essentially all those properties that it has in all possible worlds; (2) it has essentially all those properties that it actually has and would have in all possible worlds in which it exists; (3) it has essentially all those properties that it actually has and would have in all possible future worlds in which it exists. It seems to me that (1), together with certain additional assumptions, lies behind Kaplan’s theory of essentialism and its answer to our question; that (2) lies behind Plantinga’s theory of essentialism and its answer to our question; and that (3) lies behind the [Aristotelian] theory we are presenting here and its answer to our question. (359-60)

Whereas Kaplan’s and Plantinga’s theories could be thought of as interpretations of ‘essential₁ property’, Brody’s own theory suggests this definition of an essential property:

p is an essential₃ property of x at t =df x has p at t and it is impossible for x to lose p without ceasing to exist.

Brody goes on to say that “any property had essentially by some object and accidentally by none, whether actual or potential, determines a natural kind, and that the set of objects having that property is a natural kind.”

¹ See Kung [1977], who, in effect, sides with Cresswell (367-68).

(363) As Brody makes clear with a similar example, a property such as having been born in Boston will count as an essential₁ property of anything that ever has it and would therefore, according to Brody's claim, determine a natural kind. (However appropriate this may seem to Bostonians, it is, as Brody concedes, rather remote from Aristotle.)

Before considering whether Aristotle himself countenanced essential₁, essential₂, or essential₃ properties, I turn briefly to a somewhat differently motivated attempt to capture Aristotelian essentialism.

In a richly suggestive article, "Essential Properties," [1969] Daniel Bennett claims, with specific reference to Aristotle, that essential properties are necessary ones that are also "sortal properties." The way Bennett characterizes 'sortal property' gives us this set of severally necessary and jointly sufficient conditions for F's being a sortal property (or perhaps it will be *being F* that is the sortal property):

- i. Anything that is F, for as long as it is F, is sorted up and down by F.
- ii. i. is a necessary truth.
- iii. It is possible that anything that is F is, at some time when it is F, nonsorted across by F. (498)

x is *sorted up* by (its being an) F, according to Bennett, just in case x is an F and none of the wholes of which x is part are also F. (Thus Brer Fox is sorted up by (being a) fox, since he is a fox and no fox is a proper part of a fox.) x is *sorted down* by (its being an) F just in case x is an F and none of the (proper) parts of x is an F. (Again, Brer Fox is himself a fox and none of his proper parts is one; so he is sorted down by (being a) fox.) x is *nonsorted across* by (being an) F just in case x is an F and only some things distinct from x are F. (Since some things fail to be foxes, Brer Fox, by being one, is nonsorted across by (being a) fox.) (496-97)

Bennett's necessity condition is rather complicated. It includes the requirement of necessary omnitemporality, i.e., necessarily belonging to each thing that has it for that thing's total "lifespan." It also includes a suggestion about reducing apparently *de re* modality to apparently *de dicto* modality. But for our limited purposes it will be enough to say that the requirement comes reasonably close to what being an essential₂ property is. Thus, cutting corners a bit, we can add the condition of sortality to essentiality₂ and get this definition of 'essential property' from Bennett:

p is an essential₄ property =df p is an essential₂ property and p necessarily sorts anything that has it both up and down and possibly non-sorts it across.

Informally, essential₄ properties are those that necessarily mark off the things that have them (and do so throughout the “careers” of those things) from all wholes that they belong to, and from all the parts that they have, and possibly mark them off from at least some other things as well.

Bennett’s sortality requirement brings our attention to focus on well-individuated organisms, especially, no doubt, on large animals. But, of course, Aristotle is also interested in homogenous stuff, like blood and gold. As he makes clear in, for example, the very last chapter of the *Meteorology*, he thinks of, say, the substance gold as having a *logos* that reveals its essence, and therefore as having essential properties, even though those properties will fail the sortality requirement.

* * *

Although there are certainly other attempts in the recent literature to capture Aristotelian essentialism (see, for example, Cohen [1978], or Parsons [1967]), these four efforts provide sufficient basis for us to draw several important conclusions about the project of understanding Aristotelian essentialism from a modern point of view. But before we try to draw those conclusions, it might be worthwhile to consider a few examples of properties that might count as essential₁, or essential₂, or essential₃, or essential₄ properties of something (at some time).

	essential ₁	essential ₂	essential ₃	essential ₄
(1) being a philosopher	no	no	no	no
(2) having red eyes	yes	no	no	no
(3) being a number	yes	yes	yes	no
(4) being no longer a child	no	no	yes	no
(5) having been born in Boston	no	no	yes	no
(6) being self-identical	yes	yes	yes	no
(7) being a human being	yes	yes	yes	yes
(8) being a female animal	yes	yes	yes	yes
(9) being a closed, plane figure with angles equal to 2 right angles	yes	yes	yes	?

Perhaps the most obvious worry about saying that essential_{1,2,3} properties are anything that Aristotle would countenance as essential properties concerns (6). It is certainly common enough nowadays to consider being self-identical an essential property, but doing so seems quite alien to Aristotle. Bennett’s diagnosis of what is wrong here may be helpful. According to him, being self-identical could hardly be what Aristotle has

in mind as an essential property, since it fails to sort up or down and also fails to nonsort across. But, before we give too many points to Bennett, it may be well to remind ourselves that homogenous stuffs (for example, gold, bone, and blood) also fail the sortality requirement, even though Aristotle supposes them to have essences.

Of course a simpler way to eliminate universal properties, like being self-identical, would be, as several writers have suggested, to build into the requirements for being essential that something lack the property in question. If there were no other problems, this way of strengthening the above definitions would be very promising.

The results for (4) and (5) seem to count heavily against essentiality, as a genuinely Aristotelian notion. Phasal properties like (4) would hardly belong to an Aristotelian essence, and, as I have already indicated, being born in Boston is a clear nonstarter.

One helpful clue as to something that is wrong with all these efforts, and others like them, is brought out by reflection on (8) and (9). Consider (8).

Assuming that “sex-change” surgery does not really alter one’s gender, the property of being a female animal ought to count as essential in all these senses. Yet Aristotle does not think that gender belongs to essence because essence has to do with *eidos* — species, or form. A male and a female animal of the same species will not, he thinks, be essentially different. (See Matthews [1986].)

As for (9), Aristotle tells us that it is a *per se* accident. In the terminology of Aristotle’s *Topics* it is an absolute *proprium* (*haplôs idion*). It belongs to all and only triangles, and necessarily so. As Aristotle says in *Metaphysics* Delta, it even belongs to triangles eternally. Yet Aristotle says it doesn’t belong to the essence of a triangle. How can this be?

One might think that the trouble with (9) is that it fails the sortality requirement. Thus perhaps a given triangle could be said to be part of some larger one and could have smaller triangles as its parts. But, of course, if one takes this line about triangles, and holds onto the sortality requirement for essential properties, one will have to say that triangles simply have no essential properties at all. After all, any geometrical property that belongs to a given triangle will also belong to some triangle that could be considered a part of it, as well as to some triangle of which it could be considered a part.

Either (9) fails the sortality requirement or it passes. If it fails, then contrary to Aristotle (see, for example, 404b16-403a2, quoted in full below), triangles will have no essences. If it passes the sortality requirement, then on any of the definitions above, it will qualify as an essential property. But

that is wrong, too, since Aristotle tells us that (9) is only a *proprium*, or *per se* accident.

Aristotle's idea seems to be that 'having angles equal to two right angles' is not part of the proper definition of 'triangle', that is, part of a definition that reveals the essence of a triangle.² For this reason (9) is not, for Aristotle, an essential property. I shall return to this point later on.

Nicholas White [1972] has urged that there is another difficulty with all efforts such as these to capture the Aristotelian idea of an essential property:

A clear-cut adoption of essentialism requires that one be able to distinguish between, e.g., a statement of the form "necessarily (x)(if x is F, then x is G)" and a statement of the form "(x)(if x is F, then necessarily x is G)." What this ability requires in turn is that one be able to grapple successfully with the subtle problems of the placement of modal operators. It is clear, however, that Aristotle's use of modal expressions does not exhibit meticulous care in their placement. (60)

White concludes: "it seems safe to say that Aristotle would not be likely, at least using words like 'necessarily', to present us with a clear statement of essentialism." (61)

I agree with White that Aristotle "does not exhibit meticulous care" in the placement of modal operators.³ However, I'm not convinced that such sloppiness bars him from a clear-cut adoption of essentialism. Let me explain.

I have already indicated that it is wrong simply to *identify* Aristotelian essential properties with those properties that are necessarily had by something. But I don't think we need require clear cases of the necessity operator governing 'x is G' rather than, say, a conditional (if x is F, then x is G), before we can allow that Aristotle is "using words like 'necessarily' to present us with a clear statement of essentialism."

Suppose Aristotle said that it is impossible for something that is an animal at t, and also an animal at some (later) time t*, to be a man at t and not a man at t*. That is, where *man* is a proper species of *animal* (and 'Axt' stands for 'x is an animal at t' and 'Mxt' for 'x is a man at t'),

$$\Box (x) (t) (t^*) (Axt \cdot Axt^* \cdot Mxt \supset Mxt^*)$$

This is not the claim of a *de dicto* implication leading from being a man (species) to being an animal (genus). Rather it is the claim of a necessary connection between an animal's being a man at one time and its continu-

² See 131b37-132a21. For other relevant cases in Aristotle and an interesting discussion of their significance, see Kung [1977], esp. pp. 362-63, and Sorabji [1969].

³ See Sorabji [1969], 134-35.

tialist claim; it has to do with what Montgomery Furth has dubbed “migration barriers.” (Furth [1988], 121) And such a claim is to be found in this passage from Aristotle’s *Topics*:

[I]t is impossible for a thing still to remain the same if it is entirely transferred out of its species, just as the same animal could not at one time be, and at another not be, a man. (125b37-9).

It is not that Aristotle supposes no individual can ever “join” a species. In fact he thinks this happens all the time — in embryology. Thus, on his story, a human embryo starts out being a mere living thing, but not yet an animal. (*Generation of Animals* 2.3 736b2-5)⁵ At a later stage it becomes an animal, but not yet specifically a human animal. At a third stage it becomes specifically a human animal. Now what it can’t do is to go from plant to animal, or from being a human being to being a goat or a monkey. It is migration across parallel species that Aristotle rules out, not species acquisition.

Given Aristotle’s idea that a thing’s species is, for it, a “migration barrier,” and given the idea that certain (essential) properties determine a thing’s species, then it will at least be true of some essential properties that they are, in an appropriate way, necessary to everything that has them. Despite difficulties in understanding other modal claims in Aristotle, we can find him making this point quite clearly enough.

I turn now to another difficulty with the various attempts above to reconstruct Aristotelian essentialism, a difficulty that is, in my judgment, both the most serious and, at the same time, the most interesting.

When Quine characterizes Aristotelian essentialism, he talks about the attributes of a thing “quite independently of the language in which the thing is referred to, if at all.” It is an assumption of his discussion, and of all the attempts to define ‘essential property’ we have discussed so far — indeed, of almost all recent discussions of Aristotelian essentialism — that, for example, ‘Plato’ and ‘the most famous teacher of Aristotle’ can be used to refer to one and the same person or thing.

Let’s call the assumption that a proper name and each of some set of definite descriptions can be used to refer to one and the same person or thing “the Co-Referentiality Assumption.” Not only is the Co-Referen-

⁴ This sort of consideration is, of course, the motivation for Brody’s account of Aristotelian essentialism. (Brody [1973]) But at most it yields only a necessary condition, and not a sufficient one, for something’s counting as an Aristotelian essential property, as the discussion to follow should make clear.

⁵ Thus differentiation and specification is unalterable, though an embryo starts out being unspecified. Brody’s reconstruction captures this idea, but it captures too much else besides. For example, I cannot lose the property of having begun writing this paper, but that is not enough to credit it as an essential property of mine.

tiality Assumption an assumption of each of the above attempts to define ‘essential property’; it is also a commonplace of modern philosophy. But as Lewis [1982] and Matthews [1982] argue, the Co-Referentiality Assumption is not an assumption that Aristotle himself makes. Instead, Aristotle thinks of accidental descriptions like ‘the most famous teacher of Aristotle’ and ‘the man sitting in the corner’ as picking out accidental unities that are only accidentally the same as, and not the same “in being” as (or as we should say, not identical with), Plato and Coriscus, respectively. For details of the evidence that Aristotle held such a bizarre view, I refer the reader to the articles cited.⁶

The ephemeral objects that Aristotle supposed accidental descriptions pick out — accidental unities, or, as I have dubbed them, “kooky objects” — are not just the product of an idle metaphysics, or a simple-minded semantics. They figure significantly in Aristotle’s solution to epistemic puzzles, like the notorious “Masked Man” (see Matthews [1982], 236-39), and to puzzles of change like this one:

(i) The young bride has become the old widow.

So:

(ii) The young bride and the old widow are the same (person).

So:

(iii) The young bride has become the young bride.

And:

(iii) The old widow has become the young bride.

(See Code [1976] and Matthews [1982], pp. 236-37.)

From our contemporary point of view such puzzles rest on the mistaken assumption that co-referential terms can always be substituted, one for the other, *salva veritate*. We would say, following Quine, that such

⁶ But also to White [1972], pp. 71-73, where there is perhaps the first recognition of the relevance of this feature of Aristotle’s thought to Aristotelian essentialism. See also White [1971], esp. pp. 185f.

Cohen [1978], noting that the man’s losing pallor takes the (kooky) object, the pale man, out of existence, suggests that being an F is (all or part of) an Aristotelian essence just in case, for anything that has it, whether kooky object or straight object, losing it would drive it out of existence. Noting then that the pale *man* would be driven out of existence by losing the property of being a man (by becoming a corpse), Cohen suggests restricting the principle to genuine subjects. We then have the problem of understanding why, for Aristotle, neither the pale thing nor, in general, the matter that constitutes a substance at some given time, is, for Aristotle, a genuine subject. Cohen’s discussion of these points is richly rewarding.

substitution is guaranteed to preserve truth only in referentially “transparent contexts.” In a quite different move, but one that can be systematically correlated with the modern one (see Williams [1985]), Aristotle denies the identity assumption. According to Aristotle, ‘the young bride’ and ‘the old widow’ pick out kooky objects only accidentally the same as, say, Jane Smith. Only expressions for entities that are, as Aristotle would say, the same “in being” are guaranteed to be substitutable *salva veritate*, and they can be substituted with full truth-preserving guarantees, even in what we consider referentially opaque contexts.

Julius Moravcsik [1976] suggests that Aristotelian essentialism requires us to recognize “privileged descriptions,” such as ‘this plant’, and ‘this human being’ (contrast: ‘the plant in the window’ and ‘the man approaching’). It would be better to say that Aristotle asks us to recognize *clearly privileged objects*, namely substances, and then *relatively privileged objects*, such as qualities, quantities, places, etc. Distinct from both these classes of objects are the unprivileged ones, namely, accidental unities (kooky objects). Substances have essences in the primary or unqualified sense (1031a12f). Entities in other categories (for example, qualities and quantities) have essences in a secondary sense. But kooky objects either don’t have essences at all, or at most have essences only in a throwaway sense of the word.⁷ One thing this means for Aristotle is that there can be no science of kooky objects, or even any genuine knowledge of them. (See *Metaphysics* E2.)

According to Aristotle the sitting man will perish when the man stands. We could say that sitting belongs necessarily and omnitemporally, even necessarily omnitemporally, to the sitting man. But saying that isn’t even a first step toward convincing Aristotle that sitting is, in any robust sense of ‘essential’, an essential property of the sitting man. For the sitting man is simply not, for Aristotle, the right kind of object to have a proper essence.

* * *

⁷ In *Metaphysics* Z4 Aristotle first concludes that only substances have essences. (1030a6) He then allows that, although it is only substances that, in the unqualified sense, have essences, qualities, quantities, and other items in non-substance categories have essences in a derivative sense. (1030a30) Finally, Aristotle allows that one can have a sort of pastiche definition of ‘the white man’, by sticking together the definitions of ‘white’ and ‘human being’. But this will be a definition in only the most attenuated sense of the word. (1030b12) The unstated implication of this last move (see Halper [1989], 66-73) is that there is also, in a fully attenuated sense of ‘essence’, an essence of the white man. But if so, the white man will be, as Furth [1988] puts the point, “the weakest of the unities that are conceivably assignable an essence in any sense.” (240; see also Frede and Patzig [1988], Bd. 2, 74-75) This unity is so weak that there can be no knowledge or science of it. (*Metaphysics* E2)

What then is Aristotelian essentialism? It is the view that (i) there are certain clearly privileged objects (substances), as well as certain relatively privileged ones (qualities, quantities, etc., even pure “stuffs”); that (ii) both the clearly privileged objects and also the relatively privileged ones have “definitions” (*logoi*) that reveal their real nature or essence; and that (iii) privileged objects cannot change in species (that is, their real nature or essence, once established, is fixed).

It is a project of no small difficulty, but also no small importance, to make clear Aristotle’s grounds for identifying certain objects as privileged. Bennett’s explication of sortality is certainly relevant to part of that project. Furth [1988] is a much more ambitious, and also a gratifyingly successful, effort to do much of that job.

So far, then, we have the following suggestion for what ought to count as an essential property for Aristotle:

p is an essential_i property =df there is some privileged object, o, such that having p is all or part of the essence of o.

Can we go on to explain what an essence is, according to Aristotle? More specifically, can we explain why, for example, having three internal angles belongs to the essence of a triangle, but having internal angles equal to two right angles is only a *proprium*, or a *per se* accident, and not part of the essence of triangle?

I think that Aristotle would insist we did some geometry to determine the essence of a triangle. What would we be looking for? “Real definitions,” presumably. But I doubt there is any way to spell out what is required for a formula (*logos*) to express a “real definition,” rather than a mere collection of *propria*, or *per se* accidents, without actually rolling up our sleeves and doing the science in question.⁸

The following passage from the *De anima* gives us a flavor of how Aristotle thinks a scientist ought to proceed in trying to find essences:

It seems not only useful for the discovery of the causes of the accidental properties of substances to be acquainted with the essential nature of those substances (as in mathematics it is useful for the understanding of the property of the equality of the interior angles of a triangle to two right angles to know the essential nature of the straight and the curved or of the line and the plane) but also conversely, for the knowledge of the essential nature of a substance is largely promoted by an acquaintance with its properties: for, when we are able to give an account conformable to experience of all or most of the properties of a substance, we shall be in the most favourable position to say something worth saying about the essential nature of that subject; in all demonstration a definition of the essence is required as a starting-point, so

⁸ For some helpful suggestions, plus an indication of some of the pitfalls, see Irwin [1988], 61-64, and the entries under ‘essence’ in the index.

per se accidental properties!], or which fail to facilitate even a conjecture about them, must obviously, one and all, be dialectical and futile. (402b16-403a2, Ross trans., revised and amended)

No doubt Aristotle expects it to turn out that, whereas something like 'is a closed, plane figure with three sides' will be a definition of 'triangle' (and therefore something that reveals the essence of a triangle), 'has internal angles equal to two right angles' will be left for homework, even though the theorem stating this necessary truth will be a relatively elementary one.⁹

* * *

Three problems have hobbled recent efforts to reconstruct Aristotle's notion of an essential property. The first is a need to appreciate that Aristotle does not have our idea of "a thing (quite independently of the language in which the thing is referred to, if at all)." The second is the unexpected task of having to eliminate kooky objects from consideration so as to be able to concentrate on clearly, or at least relatively, privileged objects, which are the only objects Aristotle supposes to have proper essences. And the third is the need to realize that, even if we had a good general understanding of what an essence is for Aristotle, we wouldn't be able to determine whether having *p* belongs to the Aristotelian essence of an *F* without developing, or having already at hand, a satisfactory Aristotelian science of *F*'s.¹⁰

BIBLIOGRAPHY

- Balme, D. M. [1980], "Aristotle's Biology was not Essentialist," *Archiv für Geschichte der Philosophie* 62, 1-12.
- Bennett, Daniel [1969], "Essential Properties," *Journal of Philosophy* 66, 487-99.
- Bolton, Robert [1976], "Essentialism and Semantic Theory in Aristotle," *Philosophical Review* 85, 514-44.
- Brody, Baruch A. [1973], "Why Settle for Anything Less than Good Old-Fashioned Aristotelian Essentialism," *Nous* 7, 351-65.
- Cohen, S. Marc [1978], "Essentialism in Aristotle," *Review of Metaphysics* 31, 387-405.
- Code, Alan [1976], "Aristotle's Response to Quine's Objections to Modal Logic," *Journal of Philosophical Logic* 5, 159-86.

⁹ For interesting discussions of this problem see Sorabji [1969], Teller [1975], and Kung [1977].

¹⁰ I thank Fred Feldman for his criticisms of an earlier draft of this paper.

- Cresswell, M. J. [1971], "Essence and Existence in Plato and Aristotle," *Theoria* 37, 91-113.
- Frede, Michael, and Günther Patzig [1988], *Aristoteles 'Metaphysik Z'*, 2 Bände, München: Verlag Beck.
- Furth, Montgomery [1988], *Substance, form and psyche: an Aristotelean metaphysics*, Cambridge University Press.
- Halper, Edward C. [1989], *One and Many in Aristotle's Metaphysics*, Columbus: Ohio State Press.
- Irwin, Terence [1988], *Aristotle's First Principles*, Oxford: Clarendon Press.
- Kung, Joan [1977], "Aristotle on Essence and Explanation," *Philosophical Studies* 31, 361-83.
- Lewis, Frank A. [1982], "Accidental Sameness in Aristotle," *Philosophical Studies* 42, 1-36.
- Marcus, Ruth Barcan [1971], "Essential Attribution," *Journal of Philosophy* 68, 187-202.
- Matthews, Gareth B. [1982], "Accidental Unities," *Language and Logos*, M. Schofield and M. Nussbaum, eds., Cambridge, 1982, 223-40.
- [1986], "Gender and Essence in Aristotle," *Australasian Journal of Philosophy*, supplement to volume 64, 16-25.
- Moravcsik, J. M. E. [1976], "The Discernibility of Identicals," *Journal of Philosophy* 78, 587-98.
- Parsons, Terence, "Grades of Essentialism in Quantified Modal Logic," *Nous* 1 (1967), 181-91.
- Quine, W. V. [1966], "Three Grades of Modal Involvement," *The Ways of Paradox*, New York: Random House, 1966, 156-74.
- Sorabji, Richard R. K. [1969], "Aristotle and Oxford Philosophy," *American Philosophical Quarterly* 6, 127-35.
- Teller, Paul [1975], "Essential Properties: Some Problems and Conjectures," *Journal of Philosophy* 72, 233-48.
- White, Nicholas P. [1971], "Aristotle on Sameness and Oneness," *Philosophical Review* 80, 177-97.
- [1972], "Origins of Aristotle's Essentialism," *Review of Metaphysics* 26, 57-85.
- [1986], "Identity, Modal Individuation, and Matter in Aristotle," *Midwest Studies in Philosophy* 11, 475-94.
- Williams, C. J. F. [1985], "Aristotle's Theory of Descriptions," *Philosophical Review* 94, 63-80.

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⁴ **Why Settle for Anything Less than Good Old-Fashioned Aristotelian Essentialism**

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⁶ **Aristotle on Sameness and Oneness**

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Bibliography

Essentialism and Semantic Theory in Aristotle: Posterior Analytics, II, 7-10

Robert Bolton

The Philosophical Review, Vol. 85, No. 4. (Oct., 1976), pp. 514-544.

Stable URL:

<http://links.jstor.org/sici?sici=0031-8108%28197610%2985%3A4%3C514%3AEASTIA%3E2.0.CO%3B2-H>

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Noûs, Vol. 7, No. 4. (Nov., 1973), pp. 351-365.

Stable URL:

<http://links.jstor.org/sici?sici=0029-4624%28197311%297%3A4%3C351%3AWSFALT%3E2.0.CO%3B2-B>

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Terence Parsons

Noûs, Vol. 1, No. 2. (May, 1967), pp. 181-191.

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<http://links.jstor.org/sici?sici=0029-4624%28196705%291%3A2%3C181%3AGOEIQM%3E2.0.CO%3B2-V>

Aristotle on Sameness and Oneness

Nicholas P. White

The Philosophical Review, Vol. 80, No. 2. (Apr., 1971), pp. 177-197.

Stable URL:

<http://links.jstor.org/sici?sici=0031-8108%28197104%2980%3A2%3C177%3AAOSAO%3E2.0.CO%3B2-A>

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C. J. F. Williams

The Philosophical Review, Vol. 94, No. 1. (Jan., 1985), pp. 63-80.

Stable URL:

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