

## SECONDARY EXTENSIONS, MEANINGS AND NON-NULI TERMS

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Nelson Goodman's claim that the "difference of meaning between any two terms can be fully accounted for without introducing anything beyond terms and their extensions"<sup>1</sup> is built upon the well-known distinction between primary and secondary extensions. Now the primary extension of any term is simply the class of objects named by that term, and it is well known that sameness of meaning cannot be tied simply to sameness of primary extension. Frege's "the Morningstar" and "the Eveningstar" and Russell's "Scott" and "the author of *Waverly*" have taught us the inadequacy of primary extension alone for determining meaning. And Goodman agrees that "we cannot maintain the unqualified thesis that two predicates have the same meaning if they have the same (primary) extension."<sup>2</sup> It is for this reason that Goodman introduces the notion of the secondary extension of a term—which is the extension of any compound formed by using the original term. Using this notion of secondary extension, Goodman formulates what I shall call the *extended extensionalist thesis*: "two terms have the same meaning if and only if they have the same primary and secondary extensions."<sup>3</sup> In "On Some Differences About Meaning," Goodman says that "two terms are synonymous if and only if (a) they apply to the same objects, and (b) each compound constructed by combining certain words with either of the terms applies to exactly the same objects as the compound term constructed by combining the same words in the same way with the other of the terms in question."<sup>4</sup> The

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1. Nelson Goodman, "On Likeness of Meaning," *Analysis*, vol. 10 (1949), p. 70. (Page numbers refer to reprint in *Semantics and the Philosophy of Language*, edited by Leonard Linsky, The University of Illinois Press, 1952).

2. *Ibid.*, p. 69.

3. *Ibid.*, p. 71.

4. Nelson Goodman, "On Some Differences About Meaning," *Analysis*, vol. 13, No. 4 (1953), pp. 63-64. (Page numbers refer to the reprint in *Philosophy and Analysis*, edited by Margaret MacDonald, Philosophical Library, New York.)

success of this extended extensionalist claim obviously relies exclusively upon the notion of secondary extension since it is agreed that primary extension alone will not do the job.

I do not think that Goodman's claim that secondary extensions determine meaning is justified, and if this claim regarding secondary extensions is faulty, then so is the entire extended extensionalist thesis. I wish to re-examine Goodman's claims regarding secondary extensions in summary form, and then raise what I take to be some major objections to these claims.

Goodman points out that if we are going to retain the logical theorem that if all  $\alpha$ 's are  $\beta$ 's, then all the things which bear the relation  $P$  to an  $\alpha$  are things that bear the relation  $P$  to a  $\beta$  (*Principia Mathematica* 37:2), then we must account for the odd situation which develops when  $\alpha$  and  $\beta$  are null. For example, though all unicorns are centaurs (which is true since there are none of either), it does not follow that all pictures of unicorns are pictures of centaurs or that all stories about unicorns are stories about centaurs. What this actually shows us, Goodman claims, is that "picture of" is not always a relation; he says, "a phrase like 'picture of a centaur' is a single predicate."<sup>5</sup> We should speak not of "pictures of" unicorns or "pictures of" centaurs but of "unicorn-pictures" and "centaur-pictures."

On Goodman's analysis, a unicorn-picture or a centaur-picture is not what it is by virtue of some resemblance to an object; 'unicorn-picture' and 'centaur-picture' are simply arbitrary designations for different objects. In a crucial passage, Goodman says, "'Centaur-picture' and 'unicorn-picture' merely apply to different objects just as 'chair' and 'desk' apply to different objects, and we need no more ask why in the one case than in the other."<sup>6</sup>

Finally, since in the inscription 'a  $P$  that is not a  $Q$ ,' we have a  $P$ -description that is not a  $Q$ -description for any two predicates ' $P$ ' and ' $Q$ ,' no two terms will ever have the same meaning since there will always be a difference in their secondary extensions. We should speak then, Goodman tells us, of terms as having only greater or lesser degrees of likeness of meaning.

This theory, Goodman suggests, takes care of the well-known troublesome examples originating with Frege and Russell. The difference of meaning between 'the Morningstar' and 'the Eveningstar' is explained by his theory Goodman believes because, "There are . . . 'Morningstar-pictures' that are not 'Eveningstar-pictures'—and also, indeed, 'Eveningstar-pictures' that are not 'Morningstar-pictures.'"<sup>7</sup> Presumably, the same analysis would work for 'Scott' and 'the author of *Waverly*.'

It should be pointed out that Goodman's claim that compounds should be

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5. Goodman, "On Likeness of Meaning," p. 70.

6. *Ibid.*, p. 71.

7. *Ibid.*

treated as single-place predicates is based entirely on the difficulties raised by null classes. The entire discussion in "On Likeness of Meaning" centers around the examples of "unicorn" and "centaur" and the difficulties these terms create for the theorem from *Principia* which Goodman mentions. "'Picture of' is not *always* (emphasis mine) a relation-term," Goodman tells us, but presumably it sometimes is. When we say, "This object is a picture of the Washington Monument," if we are not using the phrase 'picture of' as a relation then some explanation of its proper role is needed. Goodman has based his analysis described above completely upon the difficulties caused by null terms. The difficulty here is reflected when Goodman, instead of continuing to talk about the phrase 'picture of,' suddenly tells us that "A phrase like '*picture of a centaur*' (emphasis mine) is a single place predicate." Even in the much later and more thoroughly done *Languages of Art*, Goodman explicitly says that 'picture of' is sometimes relational. He says,

What tends to mislead us is that such locutions as "picture of" and "represents" have the appearance of mannerly two-place predicates and can sometimes be so interpreted. But "picture of Pickwick" and "represents a unicorn" are better considered unbreakable one-place predicates or class-terms, like "desk" and "table."<sup>8</sup>

Goodman definitely suggests here that in some cases a term's compound should not be treated as a single-place predicate. So, it would seem, Goodman has made no case for turning 'picture of a chair' into 'chair-picture' or 'picture of a desk' into 'desk-picture' or 'picture of the Washington Monument' into 'Washington Monument-picture' or 'picture of the Lincoln Memorial' into 'Lincoln Memorial-picture.' His reason for developing such single-place compounds is based completely on null classes. In the crucial passage quoted earlier, he says "'Picture of' is not *always* (emphasis mine) a relation term"; he never says that 'picture of' is a single-place predicate, but, he says "A phrase like 'picture of a centaur' is a single-place predicate." Unless a case is made for handling the secondary extensions of non-null terms as single-place compounds, then the extended extensionalist thesis fails.

The suggestion that 'unicorn-picture' and 'centaur-picture' are simply arbitrary designations for objects as are the words 'chair' and 'desk' obscures a distinction which ought to be kept clear—the distinction between a term and compounds formed by using that term. It is possible that Goodman may simply mean that 'unicorn-picture,' and 'centaur-picture' are arbitrary in the sense that any word is, but, I think, he wants to make a stronger claim. He apparently wants to claim that 'unicorn-picture' and 'centaur-picture' are "arbitrary labels" *even given the present meanings of 'unicorn' and 'centaur.'* But can we consistently retain our present definitions of 'unicorn' and 'centaur' and arbitrarily reverse the designa-

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8. Nelson Goodman, *Languages of Art*, New York: Bobbs-Merrill Company, Inc. (1968), p. 21.

tions of 'unicorn-picture' and 'centaur-picture'? I will try to show that we cannot.

There are two main related and interwoven sources for the appearance of this arbitrariness which just is not present. One is the choice of terms with null extensions as examples and the second is regarding '*P*-description' as a completely arbitrary way of referring to the purely syntactical inscription, 'a *P* that is not a *Q*.' Suppose instead we consider the examples 'the Washington Monument' and 'the Lincoln Memorial.' These expressions appear to function much like names even though they developed from the descriptions 'the monument dedicated to Washington' and 'the memorial dedicated to Lincoln' respectively.<sup>9</sup> It seems patently incorrect to claim that we could retain the present meanings for these expressions *and* retain the present denotations of the unique object named by each and then consistently regard 'pictures of the Washington Monument' and 'pictures of the Lincoln Memorial' as "arbitrary labels." Yet, this is what Goodman's theory seems to require.

Indeed, it seems as if one could distinguish the meanings of 'pictures of the Washington Monument' and 'pictures of the Lincoln Memorial' only by retaining the meanings of the original terms. But, unfortunately, the question has not been framed this way. In responding to the question raised by J. F. Thomson (see "Some Remarks on Synonymy," *Analysis*, XII, 1952) about how one would know whether a picture is a unicorn-picture or a centaur-picture or neither, Goodman simply says that we do not need to define 'centaur-picture' to know certain things to which it clearly applies.

No complete definition is needed. If the animal before us is clearly a polar bear, the question whether there are polar bears on our island is settled even though we neither know how to define "polar bear" nor are sure whether it applies to certain other animals. To show that two secondary extensions differ we need only a case in point.<sup>10</sup>

Thomson really asked the wrong question because the crucial issue is not how an individual might come to recognize and identify unicorn-pictures or centaur-pictures.

In *Languages of Art* Goodman again focuses on distinguishing different compounds. ". . . we can learn, on the basis of samples," Goodman tells us, "to apply 'unicorn-picture' not only without ever having seen any unicorns but without ever having seen or heard the word 'unicorn' before. Indeed, largely by learning what are unicorn-pictures and unicorn-descriptions do we come to understand the word 'unicorn' . . ."<sup>11</sup> It appears to me that this certainly is the proper response to the question of how an individual knows the difference between centaur-pictures and

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9. These are expressions like the ones which Leonard Linsky describes as expressions which are "on their way to becoming names . . ." See L. Linsky, *Referring*, New York: The Humanities Press (1967), p. 120.

10. Goodman, "On Some Differences About Meaning," p. 67-68.

11. Goodman, *Languages of Art*, pp. 24-25.

unicorn-pictures, but there is more dangerous game to be hunted. What is at stake is the claim that '*P*-description' is a completely arbitrary label for the purely syntactical inscription 'a *P* that is not a *Q*.'

The polar bear story and the passage from *Languages of Art* both deal with the question of how a person learns to apply the compounds, but the crucial question to be raised is the one concerning the proper relationship between the compound and original term. If it is an orthographic accident that pictures of unicorns happen to be labeled 'unicorn-pictures' (as Goldman's use of "arbitrary labels" suggests) even given the meaning of 'unicorn,' then what good reason is there to regard 'unicorn-picture' as part of the secondary extension of the original term? And more importantly, what good reason is there to suppose that such a happenstance would have anything at all to do with the determination of the meaning of the original term? The really important concern is the one regarding the relationship in meaning between 'polar bear' and 'polar bear-descriptions' rather than between 'polar bear' and polar bears. The passage can reflect the importance of this relationship if we make the necessary adjustments.

No complete definition is needed. If the description before us is clearly a polar bear-description, the question whether there are polar bear-descriptions on our island is settled even though we neither know how to define "polar bear" nor are sure whether it applies to certain animals.

What good reason might there be for regarding polar-bear descriptions as *polar-bear* descriptions unless there is some relationship of meaning between 'polar-bear' in the compound 'polar-bear description' and the phrase 'polar-bear' used to refer? Even if the inscription 'a *P* that is not a *Q*' is regarded as a purely syntactical inscription, this does not justify the additional claim that '*P*-description' is an arbitrary label for this inscription. Unless there is some relationship of meaning (which would hardly be arbitrary) between the original term used to refer and the original term as it appears in the compound, there is no good reason to regard the compound as a part of the secondary extension of the original term. And *a fortiori*, there is no good reason to suppose that the compound could then have anything to do with the *meaning* of the original term.

If what has been argued above is correct, then Goodman's theory of secondary extensions is not able to handle the problems raised by 'the Morningstar' and 'the Eveningstar' or 'Scott' and 'the author of *Waverly*.' In the first place, as argued above, Goodman has not made the case for treating the secondary extensions of terms which do not have null extensions as single-place compounds. 'Picture of' is not a relation term when it is thought to bear a relation to something which does not exist, Goodman has argued, but 'the Morningstar' like 'the Washington Monument,' names something<sup>12</sup> and we should continue to talk about 'pictures of the Morning-

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12. 'The Morningstar' does seem to be "on its way to becoming a name" from the description "the last star visible in the morning." I admit that this is less apparent in the case of 'the Morningstar' than it is in the case of 'the Washington Monument,' but it seems to function more like a name than does 'the author of *Waverly*.'

star' even if Goodman is right about 'unicorn-pictures' and 'centaur-pictures.' Indeed it is only by retaining the word 'the' in 'pictures of *the* Morningstar' that we can retain the uniqueness of Frege's example and likewise with 'pictures of *the* author of Waverly.'

By introducing the phrases 'Morningstar-pictures' and 'Eveningstar-pictures' an attempt is made to draw a parallel to 'centaur-pictures' and 'unicorn-pictures,' which is simply not present, and the attempt to draw it obscures the difference between the two kinds of phrases. When Goodman claims that there are Morningstar-pictures which are not Eveningstar-pictures and vice-versa he appears to be saying nothing more significant than he was by pointing out that there are unicorn-pictures which are not centaur-pictures. But the two claims differ greatly.

The mechanics for clarifying this problem are supplied by Goodman himself in his treatment of "Representation-as" in *Languages of Art*. Suppose we assume for a moment that 'Morningstar-pictures' and 'Eveningstar-pictures' can be properly handled as single-place predicates. Then, saying that there are Morningstar-pictures which are not Eveningstar-pictures seems elliptical for 'there are pictures which represent Venus as the last star visible in the morning which are not pictures which represent Venus as the first star visible in the evening.' Under this interpretation one can admit that there are Morningstar-pictures which are not Eveningstar-pictures, while—remembering that 'the Morningstar' and 'the Eveningstar' both refer to the same unique individual—not admitting that there are pictures of *the* Morningstar which are not pictures of *the* Eveningstar.

The intended redundant question, "given any two predicates whatsoever, say '*P*' and '*Q*,' do we not have in an inscription of the phrase 'a *P* that is not a *Q*' something that is a *P*-description and not a *Q*-description?"<sup>13</sup> is not so easily answerable after all. In addition to the need for building a case for talking about '*P*-description' and '*Q*-description' rather than 'description of *P*' and 'description of *Q*' when *P* and *Q* are not null, the claim that an inscription like 'a *P* that is not a *Q*' is adequate for establishing difference in meaning also begs the question. Goodman says,

clearly the predicate "centaur-description" applies while the predicate "unicorn-description" does not apply to an inscription of "a centaur that is not a unicorn." Likewise, the predicate "acrid-odor description" applies while the predicate "pungent-odor-description" does not apply to an inscription of "a pungent odor that is not an acrid odor" . . .<sup>14</sup>

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13. Goodman, "On Likeness of Meaning," p. 72. Goodman uses 'description' as a generic word to include 'picture of,' 'diagram of,' 'story about,' and the like, to be used to form compounds with the original terms.

14. *Ibid.* Correspondence between Professor Goodman and the writer confirms that this quotation contains a misprint. ". . . the predicate 'acrid-odor-description' applies while the predicate 'pungent-odor-description' does not apply . . ." should read ". . . the predicate 'pungent-odor-description' applies while the predicate 'acrid-odor-description' does not apply . . ." While it is difficult to

However, the question arises of how one could determine that one description applies while another does not unless he first regarded 'centaur' and 'unicorn' and 'acid' and 'pungent' as having different meanings. Would we, for example, regard 'a bachelor-description which is not an unmarried man-description' as an inscription to which the predicate 'bachelor-description' applies but to which the predicate 'unmarried man-description' does not apply? And more importantly, does this inscription serve to establish a difference in meaning between 'bachelor' and 'unmarried man'? I think not. One would not regard the inscription as a bachelor-description and not an unmarried man-description unless he already regarded 'bachelor' and 'unmarried man' as having different meanings but it is exactly this which the use of the inscription was intended to show. Since there must be some connection of meaning between the original term and that term as it appears in the compound, whether one regards an inscription as a *P*-description or not is not completely arbitrary after all.

I have argued that additional justification is needed to extend the treatment of the secondary extensions of null terms to non-null terms because of important differences between the two classes of terms. The extended extensionalist thesis, I have claimed, does not serve to *establish* difference of meaning between *any* two terms.\*

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know exactly how much one should make of this mishap, it is significant that if 'acid-odor' and 'pungent-odor' had the primary extensions then this misprint would have been sufficient for establishing and preserving the difference in meaning for the two terms. How does such an accident differ from the correct designation for the inscription if the label is a completely arbitrary one? And why would one label have any more effect on meaning than another? This misprint was first brought to my attention by Professor Clyde Anglin.

\*I would like to express my thanks to Professors Bowman Clarke, Lyle Angene and Clyde Anglin for their comments on earlier versions of this paper. An earlier version of this paper was delivered at the 1970 Eastern Division Meeting of the American Philosophical Association in Philadelphia and entitled "Goodman on Secondary Extensions."