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Millikan’s theory of signs

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Review of Ruth Millikan,
Varieties of Meaning

I

Along with Dretske, Millikan is famous for having pioneered the ‘teleosemantic’ approach in the philosophy of mind and language. According to that approach, meaning in its most puzzling varieties — the conventional significance of linguistic forms, and the content of mental representations — can be understood in terms of two simple ingredients: natural meaning, on the one hand, and purposes or functions, on the other.

What makes linguistic meaning and intentional content puzzling is the absence of a property which natural meaning displays, namely factivity. As Grice emphasized, if (the occurrence of) a certain sign $x$ means that $p$, in the natural sense of ‘mean’, then $p$ (Grice 1957). It follows that the natural-meaning relation is well-behaved — it cannot obtain between two things unless those things exist. It is like the relation of kissing: for the kissing relation to be instantiated, there must be a kisser and a kissee. The puzzling varieties of meaning are puzzling precisely because the relation between the sign and the thing signified is not well-behaved in this way. Someone’s words can mean that $p$ even though it is not the case that $p$, and a mental representation can represent something that does not exist. How is that possible? How can we make room for Grice’s ‘nonnatural meaning’ and for Brentano’s ‘intentionality’ in a naturalistic framework? According to the teleosemanticist, we can understand those puzzling varieties of meaning in terms of the non-puzzling variety — natural meaning — by bringing in an additional ingredient: functions or purposes.

There are, Dretske and Millikan tell us, items whose function is to serve as natural signs, that is, to represent other things. Such items, which Millikan calls ‘intentional signs’ and among which she includes « conventional signs, signs by which animals communicate, and inner representations », may fail to fulfill their function. A false representation, or a representation of something that does not exist, is at bottom an occurrence of an item whose function is to represent something (in the natural, factive sense) but which fails to fulfill its function. Such an occurrence is eo ipso not a natural sign, but in the central cases that account for the persistence and continued use of the intentional sign — the successful occurrences — the intentional sign is a natural sign.

The ‘base’ of a teleosemantic theory is therefore the theory of natural signs (p. 71). Millikan criticizes Dretske for resting his notion of natural sign on lawful connections between the sign and what it signifies. « If the capacity of an organism to represent something mentally were to depend on its ability to discriminate that thing from all others in accordance merely with natural law and logical necessity, it is clear that no organism could possibly represent anything distal » (p. 34). She also criticizes causal theorists, on the grounds that often there is no causal connection between the sign and what it signifies. Natural signs, she argues, make use of statistical regularities within local domains. If some feature of reality co-
occurs with another with sufficient regularity, i.e. for a reason and not just accidentally, it can serve as a sign of that other thing. In this case, « it is possible for a true belief to be reached about one thing from knowledge of the other, the transition from one belief to the other being based on prior knowledge or experience, where the truth of the belief reached will not be accidental because the connection in thought correctly and nonaccidentally tracks a dependency in nature » (p. 37). Of course the co-occurrence of the sign and the thing signified will typically persist only within a circumscribed domain. A certain track is made by pheasants, and therefore signifies the presence of pheasants, in a certain geographic area, but in another area that sort of track is made by quail and signifies the presence of quail. Certain clouds indicate the imminence of rain on this side of the mountain, but on the other side they do not. Nor is the circumscription of the domain necessarily spatial. The position of the pointer on a certain gauge indicates the level of gas in the tank of a certain car « from the time [the gauge] is initially installed [in the car in question] until the time it first breaks down » (p. 51). Here the local domain in which the dependency holds and the sign works is circumscribed along the temporal dimension. However it is circumscribed — and it can be circumscribed in all sorts of ways — the only thing that matters from the epistemic point of view espoused by Millikan is that the consumer of the sign be able to track its local domain of validity so as to exploit the regularity that holds within that domain.

Using that theory of natural meaning, Millikan accounts for the whole of mentality. In perception, our brain embeds signs within signs and builds up a semiotic cascade through which the mind is informed of the whereabouts of distal objects. Communication itself is an extended form of perception — perception through an additional layer of signs provided by language. The conventional signs of language are intentional signs that have been reproduced, « passed down from one linguistic couple to another ». What is copied is not only the linguistic form, but the use of that form to mean a certain thing, and in the central cases that account for its continued reproduction and use the conventional sign ‘means’ the thing in the natural sense as well. Here the domain of the sign is the historical chain of copying events, which defines a family of uses in which the correlation between sign and thing signified persists in a nonaccidental manner. The same linguistic form may, of course, simultaneously belong to another reproductive family, and with respect to that other domain it may have a distinct meaning. This is similar to the track’s meaning pheasants in a certain place and quail in a different place.

II

Millikan’s theory of signs unambiguously belongs to the ‘contextualist’ family. The context plays two fundamental roles in her account: an external role and an internal role.

First, a sign signifies only with respect to a local domain, and one cannot interpret a sign unless one is able to track its domain. In the case of linguistic signs tracking the relevant local domain is what makes it possible to overcome ambiguity and ‘poly-semanticity’. Thus if someone uses the name ‘John’ or ‘Aristotle’, I must identify the ‘reproductive’ or ‘memetic’ family to which that token belongs — its local domain — in order to correctly assign it a referent (p. 131). Millikan also appeals to domain-tracking to account for the successful interpretation of semantically under-determined expressions (e.g. ‘John’s book’), of contextually restricted quantifiers, and of incomplete definite descriptions, inter alia. I will return to these issues below.

Second, an essential ‘part’ or ‘aspect’ of the sign itself is constituted by features that vary contextually from occurrence to occurrence. A complete sign is always an occurrence, that is, an event; what occurs is only the ‘narrow’ aspect of the sign. The ‘wide’ aspects of
the sign are those features of its occurrence whose contextual variation would (systematically) affect what is signified. With respect to a local domain in which a certain type of track is a sign of pheasants, the occurrence of the track at place \( l \) means that a pheasant has been present at \( l \) some time before. Had the track occurred in a different place (within the same domain) the meaning of the track would change accordingly. Since the place of occurrence contributes something to what is signified, it is an aspect of the sign. Note that what it contributes is… itself: the track’s occurrence at \( l \) signifies the presence of pheasants at \( l \). Those features of the sign that stand for themselves Millikan calls ‘reflexive signs’. She extends the category to include also ‘relative reflexives’, that is, cases in which what is signified is ‘a direct function of’ some feature of the occurrence of the sign, even though the function is not identity. In the linguistic case, this characterization seems to fit indexicals, whose semantic value is generally considered a function of some feature of the context of occurrence. But for Millikan indexicals are mere place-holders. They « are indicators whose functions are to show explicitly how wide aspects are functioning within the wide conventional signs of which they are a part » (p. 147). Even in the absence of indexicals, however, the wide aspects of the sign are semantically relevant. The occurrence of « it is raining » at \( l \) means that it is raining at \( l \). The place of utterance contributes itself to the content of the utterance. Adding the word ‘here’ simply makes explicit, but does not create, this dependence of the utterance’s content upon its context. Similarly, when a demonstrative is used, what stands for the demonstrated object is less the demonstrative than the demonstrated object itself, qua reflexive sign. The demonstrative merely indicates that some wide, contextual aspect (viz., the object the speaker is pointing to) must complete the narrow sign.

Millikan views her account of context-dependence in language as an alternative to standard views; in particular, she says, there is « no need to postulate a distinction between content and character ». On this specific point I disagree: I think her account incorporates something equivalent to the content/character distinction. What interests me, however, is how Millikan’s account compares with another position in the contextualist family, a position variously referred to as ‘Austinian semantics’ (Barwise and Etchemendy 1987, Recanati 1996, 1997, 1999, 2000), ‘non-indexical contextualism’ (MacFarlane forthcoming), or ‘Moderate Relativism’ (Recanati forthcoming). According to this view, whenever we think or talk, the content of what we say or think is to be evaluated with respect to a situation which is determined contextually. The complete content of the representation — that which an interpreter must grasp — involves both the content to be evaluated and the situation in which it is to be evaluated. Let us call the situation in question the ‘topic situation’, the complete content involving it the ‘Austinian proposition’, and the content that features in the Austinian proposition alongside the topic situation the ‘lekton’. The main difference I see with Millikan’s account is that in the Austinian framework the topic situation is an aspect of the Austinian proposition to which nothing corresponds in the sign that contextually expresses that proposition. But for Millikan, every aspect of the content of a sign is such that something corresponds to it in the sign itself; there are no ‘unarticulated constituents’ of content. In other words, Millikan strives to preserve a strict isomorphism between the sign and the content it carries, while Austinian semantics gives up that isomorphism.

III

The Austinian semanticist typically invokes examples like the following in support of his or her position:

[1] Everyone is asleep
It is raining
Claire has a good hand

In each case the sentence (or, rather, the sentence-in-context) expresses a certain content — a lekton — which is determined compositionally in the usual way. That content has absolute or relative truth-conditions, as the case may be. In addition, the speaker tacitly refers to a situation, and presents the lekton as true of that situation. In the case of [1], the lekton is the proposition that everyone is asleep, and the utterance expresses the Austinian proposition that everyone is asleep in the topic situation. In the case of [2] also, the speaker tacitly refers to a situation, and asserts that it is raining in that situation. The content that is compositionally determined is only the proposition (or propositional function) that it is raining; the place of the raining event is an aspect of the situation talked about, not an aspect of the lekton.

Example [3] comes from Barwise and Etchemendy (1987: 29, 121). Let’s assume the sentence is uttered by me while commenting upon a poker game I am watching. What I say is true, iff Claire has a good hand in the poker game I am watching. Suppose I made a mistake and Claire is not among the players in that game. Suppose further that, by coincidence, she happens to be playing bridge in some other part of town and has a good hand there. Is this not sufficient to make my assertion true? No, because the situation my assertion concerns (the poker game I am watching) is not one in which Claire has a good hand at the time of utterance. Even though the sentence (or, rather, the sentence-in-context) arguably has absolute truth-conditions and those truth-conditions happen to be satisfied, they are not satisfied in the right situation.

Millikan can handle such cases in either of two ways. She can appeal to the local domain with respect to which the sign is interpreted, or to the wide aspects of the sign itself. In the case of ‘it is raining’, as we have seen, she takes the latter course. She argues that, far from being unarticulated, the place of rain is actually contributed by a wide component of the sign, namely the place of occurrence. She would probably say the same thing with respect to Barwise and Etchemendy’s example: an utterance of ‘Claire has a good hand’ in a situation talks about that very situation, reflexively. The same story could be told in the other cases as well. It might be said (and it has been said, by Husserl) that an incomplete definite description ‘the Emperor’ uttered in a situation refers to the unique Emperor in that situation, or that ‘everyone is asleep’ uttered in situation talks about everyone in that situation. The problem with that story is that it makes wrong predictions. A Frenchman can utter ‘the President’ in Paris and still refer to the President of the US. Similarly, in discourse, I can say ‘it is raining’ and refer to a remote situation that has been previously evoked, rather than to the situation I am in. The same observation can be made with respect to all the other cases. The situation talked about, that on which the utterance’s truth-value depends, need not be the situation of utterance; nor is it a direct function of the situation of utterance. (It is a function of the situation of utterance only in the trivial sense that it is the situation talked about.) The reflexive-sign theory, which works so well in the area of perception, does not work in that area. In discourse the topic situation is free, rather than anchored to the situation of utterance (Recanati forthcoming). Of course, the topic situation may be the situation of utterance, but that is only one among an indefinite number of possibilities.

Millikan is aware that the reflexive-sign theory does not work in certain cases and she appeals to the other idea, that of domain-tracking, to account for our understanding of incomplete descriptions, contextually restricted quantifiers and semantically under-determined expressions like ‘John’s book’. This raises the following objection. The local domain of a conventional sign is the memetic family to which the token belongs. But for an incomplete description such as ‘the cat’, used by myself in talking to someone in my house, the family in question is certainly not restricted to the uses of that description to refer to my
present cat Minette. Descriptions are fundamentally different from names: they are not individuated by their referent, at any level of analysis. Similarly, though more controversially, the memetic family to which a token of the possessive construction belongs is not restricted to uses of the construction with the same contextual meaning as the token in question. Within the same reproductive family, the possessive construction in ‘John’s book’ can refer to a number of relations between John and the book, just as the pronoun ‘she’ can refer to a number of female individuals without crossing the borders of its reproductive family. What we acquire when we acquire a linguistic item of that sort is a tool with a general function (as opposed to a name whose specific function is to refer to a certain individual). The possessive construction is unlike an ambiguous expression precisely in that respect. If this is right, what enables us to assign Minette as referent to (a token of) the description, or the authorship relation as the contextual meaning of the possessive in ‘John’s book’, cannot be the memetic family to which the tokens belong.

In the case of definite descriptions, Millikan’s theory is not affected by this objection; for she does not claim that the local domain which enables us to assign a referent to an incomplete description is the domain of the conventional sign, that is, the reproductive family to which the token belongs. She says that the description conventionally signifies a certain combination of properties which itself is a natural sign of some object that exhibits those properties. Like all natural signs, the complex property which is the descriptive content of the description signifies a certain object only within a certain local domain. Thus if we take US politics as our local domain, the property of being the current President is a natural sign of Bush (just as having a certain haircut is a sign of my son in my house, since he is the only one with that sort of haircut in that local domain). Since the domain in question is the domain of a natural sign, not a conventional sign, the above objection does not apply. By tracking the local domain of the natural sign which the description conventionally signifies, we are able to assign the description a referent, despite its incompleteness.

This is a clever move, but it is not sufficient. A similar move would be needed in all the cases for which the reflexive-sign theory does not work. Such a generalization of the move strikes me as implausible, however. Millikan says that contextually restricted quantifiers (e.g. ‘everyone’ in [1]) can be handled by appealing to her local domains, but it is not clear whether she would also construe such quantifiers as signs of signs, the way she treats descriptions. She is no more explicit when it comes to semantically under-determined expressions: how exactly does the local domain enable us to assign a determinate interpretation to a token of the possessive construction? Is it the local domain of the conventional sign that is at stake (in which case the above objection applies) or is the conventional sign to be treated as a sign of sign in this case as well? Millikan does not say. In any event, I do not see how the account could be made to work for ‘it is raining’ and similar cases.

Millikan could insist that, after all, the reflexive-sign theory does work for such cases, even if the sentence (say, ‘it is raining’) is used to talk about a situation unrelated to the situation of utterance, but mentioned in previous discourse. She could argue that, by evoking a certain location in discourse, the speaker has ‘demonstrated’ that location in imagination in such a way that the location thus demonstrated can serve as a reflexive sign and contribute itself to the content of the utterance, just as the place of utterance can. (Indeed, she talks of ‘mental gaze’ in connection with domain-tracking.) This story could be extended so as to handle all the other phenomena. In all cases it could be said that a certain situation has been made salient in such a way that it is ‘given’ in the (mental) context and acquires the status of a wide component of the sign, a component that contributes itself to the content of the utterance. This may well be what Millikan has in mind, and I have no objection to that way of putting the matter. Thus understood, however, Millikan’s theory is a version of Austinian
semantics. As in Austinian semantics, the complete content of a sign is said to involve a situation that is not articulated in the linguistic material (the narrow sign). That situation is not (an aspect of) the situation of utterance either, nor is it a direct function of it, except in the trivial sense that it is tacitly referred to in the situation of utterance.

References