

Meaning without Intention*

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Abstract

According to the programme of teleosemantics, all intentional phenomena are to be subject to a naturalistic explanation in terms of an evolutionary history. A certain version of that programme is defended in the light of a non-deterministic reading of evolution. The thesis is that, firstly, the intentionality—as the meaning—of linguistic forms is not determined by the intentionality—as purposefulness—of the speakers' minds; speakers' intentions are one among other environmental conditions for the selection of the functions of linguistic forms. Secondly it is argued that this is so because the functions of mental representations and language in general, albeit historically and environmentally correlated, are subject to different regimes of selection, thus to be accounted for each in their own right.

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1 Images of Meaning

If I had to draw a picture of the philosophy of language, finding myself restricted to a broad brush as a tool, and only being allowed to apply a mere two, three strokes with that brush, my first stroke would outline the central aim of the philosophy of language as conceptual analysis. My second stroke would depict conceptual analysis as a theory concerning itself with the criteria by which sentences, words, or, more generally, linguistic forms refer to states and events in the world. If I were allowed to add a third stroke, I would use it to highlight the nature of this inquiry as the investigation into whether and how the meaning, which is, the reference, of what is said is determined by what speakers mean when they say something.

If this crude sketch really does capture rather than distort at least some of the delicate features of the philosophy of language, then what I am going to propose here amounts to drawing, again with just a few broad-brushed strokes, a different picture. In this alternative picture, the theory of meaning figures as a matter quite distinct from conceptual analysis. This picture has as its model the programme of teleosemantics, as proposed by Ruth Garrett Millikan in (Millikan, 1984) and Fred Dretske in (Dretske, 1988), and it gives a certain, partial representation of that programme. I wish here to outline this alternative picture, and to defend it.

2 Function and Intention

Judging from the title of this essay, I seek to detach the meaning, that is, the property of linguistic forms of referring to the world in which is spoken, from the purposes of the speakers of that language to do and say things in that world. But why should one want to disjoint intentionality-as-meaning from intentionality-as-purpose? After all, wasn't there, from Brentano onwards, good reason to even call them by the same name?

Obviously, there would be no meaning whatsoever of linguistic forms without speakers intending any meanings. It is beyond dispute that I need to have the intention to say something, and that I need to have some idea of what I want to talk about, and of how to say it, in order to mean something with what I say. (Otherwise I would lose myself in some purposeless and unintelligible murmur.) So much I will take for granted. And yes, there are good and, as it were, very natural reasons to call meanings and speakers' intentions by the same name—in spite of all the confusion the practice of doing so has caused. There is something both of them share: being directed towards (being 'about') something else. But what is it that confers upon them this shared property?

By making the very strong and counterintuitive claim in the title of this essay that, notwithstanding the properties both kinds of intentionality share, linguistic intentionality does not rest on mental intentionality, I meant to say *three* things, all of which rely on a natural history perspective on both kinds of aboutness.

I will pay particular, and critical, attention to the evolutionary concepts that are essential for a naturalised semantics and which I hold to be underexposed in state-of-the-art teleosemantics.

- (i) Given that the human mind and the faculty of speech are products of Darwinian evolution, *both* the way the mind works and the way language works may be explained by a history of the selection of their natural functions. That history will tell us something about the general way intentional items acquire their contents.
- (ii) If claim (i) is true, and if the functions of language have as one of their preconditions the intentionality of speakers' minds, then the latter should be counted among the selective conditions in the history of the functions of linguistic items. However, speakers' intentions, although they are among the necessary conditions of linguistic functions, are *not sufficient* for an explanation of those functions.
- (iii) The intentionality of the mind and that of language, although being closely correlated in the way described in (i and ii), are products of different regimes of selection with different units of selection, and thus have to be explained each in their own right.

The central tenets of teleosemantics on which these claims are founded are the following:¹

- (TS 1) The intentionality of a linguistic item (as its meaning) and of mental episodes (as the property of being directed towards the world) are their respective *mapping functions*.
- (TS 2) *Mapping* is a certain correlation between a behavioural or physical item and some state or event in the world that occurs repeatedly over a series of instantiations of tokenings of that item. For example, tokenings of the word "blue" or "blue" mental episodes map onto blue things because they are repeatedly and reliably produced on the occurrence of blue things²—whether or not the tokenings *mimic* the property of being blue.
- (TS 3) The *function* of those tokenings is what they have been selected for to effect, namely, in the example just mentioned, to correlate with blue things. A history of selection presupposes that only reproducible items may have, or, more precisely, acquire a function that is their own, or "proper" function, as distinguished from things that are merely used to function *as* something (for example bricks as paperweights).

¹These tenets are established in (Millikan, 1984, pt. I).

²Note that this does not imply that they always and exclusively have to be produced in the presence of blue things. Past or distant events also count.

(TS 4) The *proper function* of an item is a property or an effect—something it does or something it is used for—that accounts for its continued reproduction as a necessary and part of the sufficient condition, where the reproduction of that item may be a direct consequence of that effect, or an indirect one.³ For example, knives are reproduced by toolmakers because they cut things (but, of course, knives don't reproduce themselves). Hearts are reproduced over generations of animals because they pump blood (thus being necessary for the animals' reproduction, yet without being part of their reproductive apparatus). Words are reproduced by speakers because, among other things, they enable public reference to things in the speakers' environment.)

This account of proper functions does *not* require that effects always have to be successfully produced in order for a function to obtain. It suffices that they are produced successfully often enough to maintain the item's reproduction. Thus, functions are identified in a thoroughly etiological way, which allows for the possibility of the change and, consequently, the indeterminacy of functions.⁴

According to this account of proper functions, meaning, for natural language items at least, is assigned to those items not by way of convention or definition, but only in the course of their continued reproduction, which is, the items' repeated use in different situations by different speakers. A linguistic form's reproduction is due to a certain effect its utterance frequently and reliably produces, or to a certain number of such effects. One such effect is the mapping of a state or event in the speakers' environment. The meaning of a linguistic form is the selected effect of suchlike mapping.

On this definition, the initial correlation between sign and referent may have been, but needs not to be intended in the first place, just as its selection may (like in the case of knives) or may not (like in the case of hearts) have been intentional. The decisive criterion is simply *that* some such correlation is part of the cause of that sign being reproduced by various speakers in various situations. Whether the conditions for (further) reproduction of linguistic forms are met, and precisely which effects are reproductively relevant, can only be determined retrospectively, which means, on the basis of the history of the selection of those effects. This explanation of functions as selected effects is rooted in the evolutionary theory of adaptation by natural selection.

I admit that this sounds somewhat crude. It seems that the strings of natural selection are attached to all intentional phenomena, so that we get rid of the dogmas of meaning rationalism at the cost of a biological determinism that at best naively, but in any case incommensurately extends the explanatory scope of evolutionary theory in order to subject language, meaning, and culture in general

³The concept of proper functions is first defined in (Millikan, 1984, Introduction, p. 2), explicated in (ibid., ch. 1 and 2), and defended against criticisms in (Millikan, 1989).

⁴The first author to propose an etiological theory of functions was (Wright, 1973).

to the all-encompassing narrative of a universal Darwinism. That would be too high a price to pay. In order not to fall into this trap, I suggest a reading of teleosemantics that is rooted in an explicitly non-deterministic interpretation of Darwinian evolutionary theory.⁵

3 The Meaning of Darwinism

The pivotal point of evolutionary theory in general was to perceive the processes of life as dynamical and contextually bound rather than as being governed by timeless, unchangeable principles of form. Species and their environments change constantly. What the Darwinian theory introduced into the then-emerging evolutionary thinking was to cast the explanation of those ever-changing processes in the forms of a small set of basic causal laws (instead of inherent teleological properties of life) which it held to be structuring the development of life (instead of pre-determining its forms). As the laws of such evolutionary explanation, Darwin introduced variation—as the opening principle of (randomly) creating new forms on the level of the process of organic reproduction—and natural selection—as the closing principle of differential reproduction of variant forms under a certain set of environmental conditions.

It is vital for an adequate understanding of evolution to carefully consider the role that is being played in this process by the environmental conditions. Environmental conditions are, above all, *local* conditions specific to each and every organism and each and every population. Their environment is not their surroundings in general, let alone the world at large. In fact, it is made of finite sets, or bundles, of conditions relevant for the organisms' reproduction, and for that of their specific forms and traits. Among those conditions are, for example, things such as temperature, chemical composition of the medium, predators, food available, other organisms competing for the same resources etc.—all of them standing in a certain and very specific correlation with each other, *and* to the individual organisms. This correlation, historically, accounted for the natural selection of *that* form with *those* traits.

Organisms reproduce only if their structural and behavioural traits match, or at least do not fail those very specific sets of conditions, or “adaptors”; and they are adaptations only inasmuch as that relation of matching is part of the causal-historical explanation of the reproduction of those organisms with those traits. Thus every organism and every population of organisms have their own environment as the set of selectively relevant properties of their surroundings.

This is what makes the reading of teleosemantics that I propose here an essentially historical and, when it comes to the history of the functions of natural language items, anti-rationalist doctrine: There are no a priori criteria for determining functions as adaptations. More precisely, if we confine ourselves to a

⁵This interpretation of Darwinism was first vindicated philosophically in (Dewey, 1910).

historical, a posteriori explanation, the criteria for any trait being an adaptation are, according to the account of the role of environmental conditions I just presented, underdetermined in a twofold way:

- (A 1) Changes in environmental conditions may not be anticipated, for they depend on contingent, and sometimes not even biological, factors. Traits adapted until now may encounter themselves bereft of their adaptors, either continuing to exist as selectively neutral residuals open to acquire new functions, or, together with their bearers, ceasing to exist, for happening to be on the wrong side of differential reproduction rates.
- (A 2) The process of natural selection is in no way intentional or goal-directed. When environmental conditions change, variant forms whose traits so far would have been neutral or even maladaptive, will just happen to reproduce more vigorously for the fortunate circumstance that those traits match the newly established conditions. All teleological notions of natural functions and purposes, as justified as they may be, are to be relativised to the contingent nature of those processes.

This is the twofold reason why traits may be characterised as adaptations, their effects as functions, and evolutionary processes as progressive only in retrospect, and they may only be identified with regard to the variations available at a specific time, and with regard to the particular environmental conditions under which their selection occurred. It is precisely this peculiarly underdetermined relationship which rules out any assumption about unequivocal, final and optimal adaptations and which, I believe, holds the key to an adequate reconstruction of the teleosemantic argument. So I ask the reader firstly to keep in mind this indeterminacy of function while I recount the history of intentionality.

Secondly, the perspective on evolution I just proposed may help us with a decision that has to be made about the explanatory aims of teleosemantics: Does this theory simply want to build a *model* of intentionality based on the theory of adaptation by natural selection?—So that, by analogy, an evolutionary pattern of explanation is transferred to an explanandum that *may or may not* in fact share its structure with that of evolutionary phenomena. Assuming that it does so would be the case for memetics—that theory of Richard Dawkins which Millikan repeatedly refers to in her recent work.⁶ However, memetics are an example of analogical reasoning rather than of systematic theorising that would be informative about the structure of its explanandum. It is not *because* mind and language are products of evolution that their inner workings ask for an explanation using the same theoretical concepts. Even less does the descent of language and mind entail that their inner development, once they have been established, has to emulate evolutionary patterns of random variation and natural selection.

⁶References to memetics occur frequently in her *Varieties of Meaning*, see (Millikan, 2004, parts I and II, but especially ch. 2).

If teleosemantics wants to be a naturalistic theory of intentionality, a systematic relation between evolutionary processes on one hand and language and mind on the other, based on a causal history they share, has to be mapped out. The adoption of an evolutionary explanation has to make a serious promise of closing the notorious explanatory gap between the realms of natural causes and of intentionality. This promise I will turn to now.

4 The Evolution of Meaning

In many cases, among the traits of organisms adapted by natural selection, there are to be found mechanisms with the function of representing, or, to use a term not as charged with philosophical connotations, mapping of environmental conditions—*within* one individual, or *among* various individuals in a population. Such mapping may be described as having the function of guiding behaviour, by enabling navigation among things and events in the organism's environment, allowing for evaluation of their properties and effects. Any trait selected for doing so has a mapping function. Some such function may be established on the level of behaviour *among* individuals without those individuals already being in command of *inner* representations, conscious or other.

This distinction may be illustrated using an almost notorious example of Millikan's:⁷ Bee dances performed by a worker bee who has found nectar have the function of directing the other members of the bee colony to the source of food. This is achieved by the dance movements mapping onto the nectar's location according to, at least for the major part, genetically transmitted and naturally selected, 'hard-wired' mapping rules. Bee dances firstly are public representations, inasmuch as they occur between individuals. Secondly this behaviour is not by any chance to be explained in terms of one bee purposefully, according to inner representations, let alone conscious ones, translating suchlike inner representations into a dance. Nor do the observing bees purposefully draw conclusions from the dance when they fly towards the location of the nectar. Mapping the state of the environment and directing behaviour towards it are one and the same act. (If we want to capture this point in a linguistic vocabulary: the imperative and the indicative aspect of the sign, namely the bee dance, fall into one.)

In other cases, organisms are capable of selecting behavioural patterns individually, according to changes in their environment, so they adapt to the latter in the course of their own behaviour instead of being subject to natural selection *as* individuals.⁸ To achieve this is the function of inner maps of environmental as well as of one's own states. Mapping, in this case, is a behaviour occurring *within* an organism, with the function of actively adapting the individual's (outward)

⁷For her discussion of this example, see (Millikan, 1986), and (Millikan, 1984, ch. 2, 6).

⁸This is the difference between what in evolutionary biology is called *r*-selection (favouring, as it were, great numbers of individuals trying and failing) and *K*-selection (focusing on refined and flexible individual development of few, slow-breeding individuals).

behaviour to variable environmental conditions. In this case, mapping behaviour and external behaviour relating to the mapped state or event need not fall into one. Behaviours may be tested in certain situations, evaluated, recollected, and then repeated or discarded in another situation. This allows for each individual, by learning, developing his or her own specific mechanisms of navigating in his or her environment according to the particular conditions under which he or she has to negotiate his or her way. In consequence, different individuals, for each of them living in his or her own specific and, however slightly, different environment, will develop differently structured mental maps of the world. Accordingly, there will be individually specific sets of behaviours of relating and identifying states and events, and of adjusting one's own behaviour to them. This kind of mechanism may work without a language being available to the individuals involved. The latter is a pattern of public, inter-individual behaviours with a particular function which, although cooperating with inner representational behaviour, in a certain sense is independent of it—although in a different sense than bee dances, since there *are* inner representational behaviours that correlate with public linguistic tokenings.

However, this observation does not yet answer the question of why linguistic meaning should be the product of the same structural kind of selection (although not precisely of the same *type* of selection, in terms of what is selected), namely natural selection. Simply replacing the units of selection—from organisms to behavioural patterns—will not suffice. The specific ways in which selection occurs have to be taken into account, too. There are three different regimes of selection that need to be distinguished in an evolutionary account of intentionality of all kinds:

- (S 1) For the faculties of mind and speech, *natural selection* provides part of the cause, as a necessary and part of the sufficient condition of their occurrence. They are, above all, biological properties in the most straightforward sense.
- (S 2) For concrete mental representations, and for what linguistic philosophers call “speaker meanings”, *intentional selection*, individually performed, is a necessary and also part of the sufficient condition (leaving aside the possibility of sub-conscious motives and motivations). What is selective for individual intentions is whether they are fulfilled or frustrated when guiding behaviour.
- (S 3) The case is not so clear for the meanings of linguistic items. Here, speaker meanings are among the necessary conditions of the selection of some such item's meaning. However, in the explanation of that selection, those individual intentions are not addressed with regard to their contents, but only with regard to their *outward effects*—namely to direct the different speakers' behaviours towards the state or event in their environment on

which the linguistic item maps. The exact notions, associations and mental images of the mapped state within the individuals may still diverge indefinitely, and map onto that state in manifold ways.

Indeed, the function of language or, more precisely, the faculty of speech as a general phenomenon has its foundation precisely in the possible or actual diversity, or even disparity, of individual mental representations. The more diversified and complex systems of mental representation are, the more difficult the coordination of behaviour guided by such representations between individuals will be. If the faculty of speech, or some proto-form of it, helped to achieve such coordination, it might have been naturally selected for this effect.⁹ In the faculty of speech being established, behaviours among different individuals may be coordinated by way of the use of concrete linguistic forms, as reproducible and standardised behavioural patterns. In this sense, the faculty of speech as such is a biological adaptation which in itself does not have the function of mapping onto things, but of producing, receiving and reproducing behavioural patterns which, among other things, may achieve suchlike mapping functions by virtue of being reproductively established as types of such patterns. This holds notwithstanding the possibility of inborn (proto-) structures of language, in the sense of Chomskyan universal grammar. Speech has to be learned and exercised in order for its tokens, however facilitated their production may have been by such inborn structures, to indeed map onto the environment speakers live in.

More precisely, the mapping function of linguistic forms relies on their reproduction by different individuals under a set of selectively relevant environmental conditions as adaptors which, in rough outline, are:

- (C 1) a state of the world onto which *jointly* to direct their behaviour is selectively relevant for enabling and adjusting the speakers' further behaviours; this is what a linguistic form has to map onto in order to be reproduced;
- (C 2) the behaviours of the different speakers themselves, which to coordinate is a selectively relevant condition for the individual continuation of behaviour; a linguistic form has to direct the speakers' behaviours to each other, so that their interactions may be maintained;¹⁰
- (C 3) the divergent inner representations different speakers have of a certain state or event in their environment; however divergent those representations may be, a linguistic form needs to assist in directing the individual speakers' inner representations towards that state or event.

⁹Note that this effect may not be the reason why this faculty appeared in the first place.

¹⁰Note that conditions (C 1) and (C 2) may fall into one—if the event to be mapped is another individual's behaviour.

The continued reproduction of a linguistic form is secured if its individual tokens meet all of conditions (C 1–3). According to these conditions, linguistic meaning is independent of speakers' intentions inasmuch as a linguistic form, although it needs to map onto a state or event in the speakers' environment, *it needs not do so 'in their heads'*. Thus it is not a selectively relevant condition for linguistic forms that they assimilate speakers' inner representations to each other, let alone make them transparent to each other by representing them. Some standardisation, of course, is achieved by linguistic forms being one structuring element of what speakers have in mind, given that much of their thinking takes on the form of propositional attitudes.

However, for speakers' interactions to work it is not required that such individual notions, or speaker meanings, are the same—not even ideally. It fully suffices that the relation between inner representations and utterances is stable and connectable. This is achieved by linguistic forms triggering in the speakers acts of identification of states or events in their environment. If such acts of identification, whatever their individual shape may be, reliably and consistently relate certain classes of states or events (tokens of a type) to certain other classes of states or events (properties of the environment grouped in suchlike manner as to allow for consistent behaviours),¹¹ and if they do so in a way that allows for the utterances themselves being reproduced in a stable manner, this is what defines the utterance's meaning. As we see, it does so in a thoroughly extensional way.

5 Conclusion

Thinking and speaking in general as well as thoughts and linguistic forms in particular enter the world in the fine gradations of an evolutionary history. Thinking and speaking are natural relations to the speakers' environment, with their own particular functions, and with their own particular conditions of selection. At the same time, the environment of thinking and speaking is a shared social life-world in which speakers' thoughts and utterances become the conditions for the selection of further thoughts, utterances and actions. Since this environment is constantly changing in unpredictable ways, people as animate beings and their behaviours never are finally, totally, and optimally adapted to their environment, nor are the meanings of their utterances.

The role that is being played by those very environmental conditions is what I believe teleosemantics so far has been somewhat ambiguous about. It suggests that people speak the way they do because doing so did help, and still does help them in coping with the world they live in.¹² Indeed, it *did* help them to a certain

¹¹Note that this 'grouping' is not the same thing as the world being carved into natural kinds, since the former is an *act* of the speakers essentially dependent on their needs and, yes, perhaps even on their wishes.

¹²See (Millikan, 1984, p. 7 f).

extent, and it *may* continue to do so—but uncertainty prevails under conditions of ignorance about possible changes of the environmental circumstances that are selective for the way people speak.

Speaker intentions, on the account I proposed in this essay, may gain their greatest significance under conditions that undermine established linguistic forms and ways of speaking. Indeed, to tentatively push the evolutionary analogy a little bit further, the sources of new meanings, at least when it comes to natural languages, are variant forms produced in an individual context of use, in an, at first sight, very Gricean sense.¹³ Those variant forms may be intentionally created, and there may be some speaker meaning to them, but initially they are, as long as meaning is understood as a public affair, meaningless. Even so, those variant forms provide for the sources of new meanings. They do so if, and only if they, firstly, are reproduced by speakers—for whatever reasons on the side of the individuals reproducing them—, and if they, secondly, pass the trial of the environment in which they have to stand. So one could say that Gricean meanings represent part of the ‘variation’ side of the evolution of meaning—however a directed kind of variation, that fortunate circumstance which never occurs in organic evolution; while reproduction and standardisation of linguistic forms under a certain set of environmental conditions—among them all the particular situations of communication—represent the ‘selection’ aspect.

It is the specific way the speakers’ environment stands that determines which meanings linguistic forms ultimately acquire. It is the changeability of that environment that rules out conceptual analysis as the endeavour in the *a priori* criteria of meaning. To that environment also belong those notoriously intransparent speaker intentions which are analytically so little helpful, but whose functions nonetheless are so transparent to a theory of the evolution of mind and language.

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¹³I am here referring to what Grice called “utterer’s meaning”. See (Grice, 1989, especially ch. 5).

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