Naming and Normativity

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Evolutionary theory has recently been applied to language. The aim of this paper is to contribute to such an evolutionary approach to language. I argue that Kripke's causal account of proper names, in terms of natural selection, captures the norm of uses of a proper name, which is to refer to the same object as past others' uses in a linguistic community. My argument appeals to Millikan's theory of direct proper functions, which captures the norms of various functional entities in terms of natural selection.

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In *Wittgenstein on Rules and Private Language*, Kripke asserted that one's meaning something by a word is not a mere manifestation of one's disposition, since a disposition does not involve any *norm* from which one's use of a word can diverge and come to be called "right" or "wrong" (1982, pp. 22–24). Independently of this assertion, in *Naming and Necessity*, Kripke proposed a causal account of proper names (1980, pp. 90–97), which has served as a leading semantics of proper names in the philosophy of language (cf. Stalnaker, 1997). In this paper, I will argue that Kripke's causal account of proper names captures the norm of uses of a proper name in terms of *natural selection*.

My argument will appeal to Millikan's theory of "direct proper functions." Millikan (1984, chapter 1) presented this theory to capture in a unified way, in terms of natural selection, the norms of various functional entities such as biological traits, customs, and uses of a word (see also Millikan, 1993, chapters 1 and 2, 2002). The theory of direct proper functions can be applied to uses of a proper name too (1984, p. 75), but Millikan has never compared this theory with Kripke's causal account of proper names (see also Millikan, 1993, other chapters, 2000, 2004, 2005).

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In the next section, I will clarify a rather complicated condition in Millikan's definition of direct proper functions. In the section that follows, I will show that Kripke's causal account of proper names implies all conditions in the definition of direct proper functions. Then it will be shown that Kripke's causal account, in terms of natural selection, captures the norm of uses of a proper name, which is to refer to the same object as past others' uses in a language community.

The Functional Norms of Replicators

Millikan's theory of direct proper functions contrasts with Cummins's dispositional theory of "functions" (see Millikan, 1993, chapters 1 and 2, 2002). According to Cummins (1975), the function of an entity is its disposition which contributes to a disposition of its containing system. A heart has a disposition to pump blood, which contributes to its owner's survival. A heart has a disposition to produce sounds too, which also contributes to its owner's survival through medical treatment. It seems necessary for a heart to pump blood, whereas, although permitted, it doesn't seem necessary for a heart to produce sounds. The norms of functional entities, that is, what they *should* do are beyond the scope of Cummins's theory.[1] Millikan calls the norms of various functional entities, such as biological traits, customs, and uses of a word, "direct proper functions."

Millikan (1984, chapter 1) defines "direct proper functions" for members of "first-order" or "higher-order" "reproductively established families." Any set of entities having the same character derived by reproductions from a certain entity or certain entities is called a "first-order reproductively established family."[2] Such a common character is called a "reproductively established character." (Any member of a first-order reproductively established family from which a current member *m* was derived by reproduction or by successive reproductions is called an "ancestor" of *m*.) According to Millikan (1984, chapter 4), uses of a word form a first-order reproductively established family. Millikan gives the definition of direct proper functions in the following way:

> Where *m* is a member of a reproductively established family *R* and *R* has the reproductively established or Normal character *C*, *m* has the function *F* as a direct proper function iff:[3]

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[1]Hardcastle (2002) has attempted to show that Cummins's theory can also capture the norms of functional entities.

[2]Roughly, members of first-order reproductively established families are what Dawkins (1976, 1983) and Hull (1980, 1988) call "replicators."

[3] "Normal character" corresponds to the cases of "higher-order" reproductively established families. Roughly, members of higher-order reproductively established families are phenotypes. In this paper, I will leave aside the cases of higher-order reproductively established families and concentrate on the cases of first-order reproductively established families.

(1) Certain ancestors of m performed F.

(2) In part because there existed a direct causal connection between having the character C and performance of the function F in the case of these ancestors of m, C correlated positively with F over a certain set of items S which included these ancestors and other things not having C.

(3) One among the legitimate explanations that can be given of the fact that m exists makes reference to the fact that C correlated positively with F over S, either directly causing reproduction of m or explaining why R was proliferated and hence why m exists. (Millikan, 1984, p. 28)

Conditions (1) and (2) seem rather clear, but condition (3) seems complicated. Moreover, Millikan does not characterize the notion "legitimate explanation" in (3).[4] Following her comment on the definition, as far as the cases of first-order reproductively established families are concerned, (3) can be paraphrased as follows:

(3)' The performance of F by each of these ancestors directly caused reproduction of either m or some ancestor of m.

Let me make sure that this paraphrase is appropriate. Millikan makes the following comment on the definition of direct proper functions:

> The intuitive idea behind the definition that I will give of a direct proper function is this. A function F is a direct proper function of x if x exists having a character C because by having C it *can* perform F.... First interpret "because by having C it *can* perform F" to mean "because there were things that performed F in the past due to having C." But how could it be because F was performed in the past by C as opposed to, merely, because F was performed in the past by something or other, that x was produced?... My suggestion is that when it is in part because A's have caused B's in the past that a positive *correlation* has existed between A's and B's, and the fact that this *correlation* has existed figures in an explanation of the proliferation of A's, then it does make sense to say that A's exist in part because A's caused B's. (Millikan, 1984, pp. 25–26)

Condition (3)' requires that m has been reproduced, i.e., exists having C because the ancestors of m in (1) performed F. Even if only (1) and (3)' are satisfied, it still does not follow that, as Millikan's comment requires, m exists having C "because there were things that performed F due to having C," not "by something or other," since a positive correlation between C and F cannot figure in an explanation of the proliferation of R (i.e., C's) which results in the existence of m. However, (2) requires that such a correlation existed in part because the ancestors of m in (1) performed F due to having C. If (2) is satisfied in addition to (1) and (3)', it becomes possible that a positive correlation between C and F figures in an explanation of the proliferation of R which results in the existence of m. Then it follows from Millikan's suggestion that

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[4]Millikan makes the following remark on "legitimate explanations" in condition (3):

> There are of course many legitimate explanations, some more interesting than others, for every happening in nature. What matters here is only that explanations making reference to correlations of a certain type can be given *at all* for why certain traits of organisms survive. (Millikan, 1984, p. 26)

m exists having *C* "because there were things that performed *F* due to having *C*." Hence *m* surely can be said to have *F* as a direct proper function. As far as the cases of first-order reproductively established families are concerned, (3) can be paraphrased into (3)'.

According to Millikan, if all conditions in the definition of direct proper functions are satisfied, *C* has been selected for performing *F* over *S* (see especially Millikan, 1993, chapter 2, 2002). The definition of direct proper functions captures the norms of functional entities in terms of natural selection.

Reference and Direct Proper Function

Stalnaker (1997) has suggested that a Russellian description theory conceives the reference of a use of a proper name as fixed by the user's disposition to describe its referent. Kripke presented the following counterexample to the description theory (1980, pp. 83–84). Most users of the name "Gödel" are disposed to describe its referent as "the man who proved the incompleteness of arithmetic." Suppose that Schmidt actually proved the theorem and Gödel plagiarized it. Then, following the description theory, most users of "Gödel" refer to Schmidt. Kripke proposed a causal account of proper names while admitting the reference of uses of a name to be fixed even when the users are not disposed to describe its referent correctly (1980, pp. 90–97). Here I will show that Kripke's causal account of proper names implies all conditions in the definition of direct proper functions for members of first-order reproductively established families. Then it will be shown that Kripke's causal account captures the norm of uses of a proper name in terms of natural selection.

Note that Kripke's causal account includes reference to a first-order reproductively established family. Kripke's causal account requires that there has been a chain of uses of a proper name, that is, a sequence of people's uses of a name which all have resulted from imitation of another's use. Let *C* be a certain name and *R* be a set of utterances or writings. Kripke's causal account includes reference to the first-order reproductively established family *R* of which *C* is the reproductively established character.

Let us make sure that Kripke's causal account implies conditions (1) and (3)'. Kripke's causal account requires also that a current user of the name has intended to use it with the same reference as another's use from which he learned the name. Learning of the name, whether successful or unsuccessful, would have to take place because another's use of the name referred to a certain object. Thus another's use of the name *m*' had to refer to a certain object *o*, and *m*' referring to *o* had to cause a current use of the name *m*. If *m*' was not the introduction of the name, the other's use of the name *m*" had to refer to *o* too, and *m*" referring to *o* had to cause *m*'. Then it follows that each past use in the chain of uses of the name had to refer to a certain object *o*, and each

past use referring to *o* had to cause the next use of the name. Each past use in the chain of uses of the name can be seen as an ancestor of a current use of the name. Let *F* be reference to a certain object *o*. Kripke's causal account implies (1) and (3)', that is, certain ancestors of a current member *m* of *R* performed *F*, and the performance of *F* by each of these ancestors directly caused reproduction of either *m* or some ancestor of *m*.

How about condition (2)? Millikan characterizes the notion "correlation" in the following way:[5]

> To say that there is a correlation between two things *A* and *B* is to say that a higher proportion of *A*'s than of non-*A*'s are *B* (and — it follows — vice versa). A correlation holds relative to some definite sample of things, and this sample must of course contain things that are not *A* (as well as things that are not *B*). (Millikan, 1984, p. 26)

Kripke's causal account requires also that there has been a language community into which the name was introduced. Let *S* be the set which consists of all past uses of words in the language community after the name was introduced. At most, uses of some descriptions, other names, or pronouns could refer to the same object as uses of the name. On the other hand, as we saw above, each past use in the chain of uses of the name had to refer to a certain object *o*. It follows that, over the set *S*, the proportion of uses of the name referring to *o* had to be higher than the proportion of uses of words other than the name referring to *o*. That is, there had to be a positive correlation between using the name and referring to a certain object *o* over the set *S*. When uses of a name, whether utterances or writings, refer to an object, the name-type must be a cause of the utterances or writings referring to the object. Kripke's causal account implies (2) in the definition of direct proper functions.

Kripke's causal account of proper names implies all conditions in the definition of direct proper functions. The definition of direct proper functions captures the norms of functional entities in terms of natural selection. It follows that Kripke's causal account, in terms of natural selection, captures the norm of uses of a proper name, which is to refer to the same object as past others' uses in the chain of uses of the name.

Concluding Remarks

I will close this paper by mentioning the Russellian incorporation of Kripke's causal account. Searle (1983, chapter 9) and Fumerton (1989) suggested that Kripke's causal account can be incorporated into the description theory, since it merely conceives that users of a name, say, "Gödel," are dis-

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[5]This characterization exactly accords with Sober's (1984, pp. 281–282).

posed to describe its referent as "whatever was named 'Gödel' at the first link in the chain of uses of 'Gödel' resulting in my use." However, as mentioned in the beginning of this paper, according to Kripke (1982, pp. 22–24), one's meaning something by a word is not a mere manifestation of one's disposition, since a disposition does not involve any norm from which one's use of a word can diverge and come to be called "right" or "wrong." In this paper, I have argued that Kripke's causal account, in terms of natural selection, captures the norm of uses of a proper name, which is to refer to the same object as past others' uses in a language community. Should there be no valid arguments against the view that some norm is essential to one's meaning something by a word, my argument would serve as a defense of Kripke's causal account from an evolutionary point of view.

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