# Classic Text 25 - Philosophy of Language: Names II

In Classic Text 21 we looked at both classical and modern description theories of names of names and found them wanting on multiple levels. In this study unit we examine causal theories of reference for names introduced by Kripke (1980) and Donnellan (1972) as presented by Devitt & Sterelny's in chapter 4 of their *Language and Reality: An Introduction to the Philosophy of Language* (2nd Edition) (1999) at right. As we have already made three chapters of their book available online we shall have exceeded our quota under South African copyright law if we reproduce more. We therefore strongly recommend buying or borrowing a copy of their book and reading the chapter in question, ideally more than once since it is very closely argued.
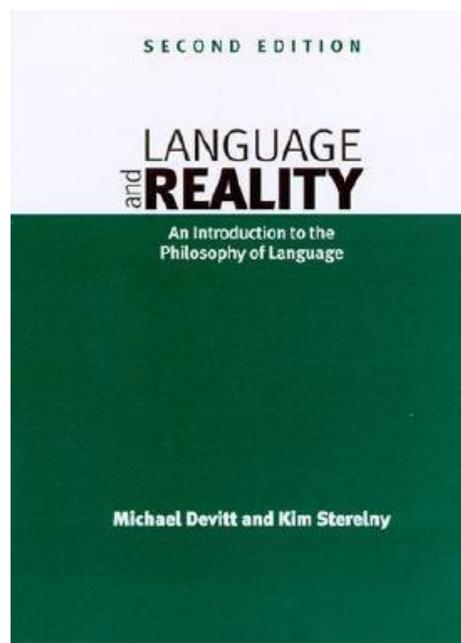
A Causal Theory of Names

According to causal theories of reference, a term refers to what it does by being causally linked to it in way that relates speakers to the world and each other. Speakers do not have to have identifying beliefs about the referent for reference to succeed.

Devitt & Sterelny begin with an account of proper names. How, for example, is a person is able to use the name 'Einstein' to designate a physicist that he has never met and whose theories he doesn't understand? There are two parts to this problem: 1.) How did the name 'Einstein' or the sound /ˈaɪnstaɪn/ enter our language so that we can use it to designate just this individual? This is the problem of **reference fixing**. And 2.) How is it that the name 'Einstein' is able to be socially transmitted within our linguistic community? (p. 66) This is the problem of **reference borrowing** introduced in Classic Text 21.

A causal theory of reference fixing of a name looks to the **causal grounding** of that name. At some stage a name is introduced in the presence of an object at a dubbing, either formally or informally. From then on the object bares that name. The act of dubbing would obviously be perceived by the dubber and anyone linguistically competent who was present during the event. Since perception is causally mediated, anyone present at the dubbing will gain the ability to use the name to designate the object. "In short, those present at the dubbing acquire a semantic ability that is causally grounded in the object." (p. 67)

A causal theory of reference borrowing explains how those not present at the dubbing acquire the semantic ability from those who were present. If the name is used in conversation or correspondence, which are perceptual and hence causal processes, those hearing the conversation or reading the correspondence will gain the semantic ability to designate the object in virtue of the causal chain that runs via the object and those present at the dubbing through the conversation or correspondence. (p. 67)

Recall that according to Frege, a name (usually) has both sense and reference, therefore a causal theory of names must also account for the sense of a name. According to Devitt & Sterelny's theory, the sense of a name is a property of the name designating the object via a special type of causal link between the name of the object and the object itself. However, as we saw in Classic Text 17, there are some names which are *empty*, *i.e.* they may occur in meaningful contexts but they have no referent. Therefore, "More exactly, … sense is the property of purporting to designate an object by such a link." We do not need to invoke any additional aspects of reality beyond the appropriate causal chains that determine reference in order to account for sense. So, although Frege was right in thinking that there was more to the meaning of a name than its referent, that "more" need not be supplied by a definite description. (p. 67)

The causal theory also supplies a theory of understanding of a name or what it means to be competent with a name. Competence with a name then is simply an ability to use it that is gained at its grounding or via reference borrowing. This ability is made possible by causal chains of a certain type that link a name to its bearer. Although we could say with Frege that to understand the meaning of a term is to "grasp its sense", competence with a name requires no *knowledge about* the sense, or that sense is the property of designating the bearer by a certain type of causal chain. Contrary to the "Cartesian assumption" discussed in Classical Text 17, the causal account of the sense of a name is largely external to the mind and unknown by most speakers. For this reason alone, the authors suggest many would reject their theory. However, recall the example of the child who learns to use the name 'Einstein' correctly to identify the famous scientist in a portrait in her school library without having any introspective grasp of its many meanings. (p. 67 - 68)

Devitt & Sterelny pause to summarise their account as follows:

> At a dubbing, a name is introduced by grounding it in an object. There is a causal chain linking the ability gained at the dubbing to the object. In virtue of that link, the reference of the name is fixed as the object. Exercising the ability by using the name adds new links to the causal chain: it leads to others having abilities dependent on the original ability. Thus, we can use 'Einstein' to designate Einstein because we are causally linked to him by a chain running though our linguistic community to someone present at his dubbing. (p. 68)

The authors refer to the causal chains underlying the ability of subsequent users to designate the individual, to whom the chains eventually stretch back, as "designating chains" or "d-chains" for short. "So, underlying a name is a network of d-chains." Reference borrowing therefore is not simply the acquisition of a word from another person. It is (at least) *in virtue* of the referential ability of the other person that the borrower's use of the tem has its reference. Not only is there a causal link between the other person and the borrower, the reference itself is dependent on an underlying d-chain that runs through the other person. (p. 68 - 69)

Virtues of the Causal Theory

Even in its simplified form the causal theory has much to recommend. It shares with description theories the ability to account for the following features of natural language, that it is: stimulus independent, arbitrary, medium independent and learned. (See Classic Text 17) The causal chain on which a name depends does not require the presence of the object, therefore it is stimulus independent. Given that any symbol in any medium can be placed in the appropriate causal relation

to the object shows that it is arbitrary and medium independent. And of course, this arrangement has to be learned. Moreover the causal theory can account for the abstract nature of proper names where the description theory could not. If, for example, your surname is a descriptive term such as 'Kraus' meaning "curly" in German, it need not imply anything about your attributes.

The causal theory also avoids the five problems of description theories discussed in Classic Text 21, namely: principled bias, unwanted ambiguity, unwanted necessity, lost rigidity and ignorance and error. Since a name does not abbreviate a cluster of descriptions the problem of finding a principled bias for selecting which descriptions are in the cluster for a name does not even arise. For the same reason the problems of unwanted ambiguities, unwanted necessity and lost rigidity do not arise. On the contrary, the causal theory actually explains this rigidity because in all possible worlds a name refers to the object it is causally related to in the actual world. Moreover, since the causal theory does not rely on any identifying beliefs, the problems of ignorance and error do not arise. Instead, language users who may be ignorant or in error about a name nevertheless succeed in refereeing to the named object or person via a series of reference borrowings that stretches back to the naming of the object or person. No reference lender need be an expert about the named object or person. (p. 69)

The causal theory can also solve the problems of identity statements introduced in Classic Text 17. According to Devitt & Sterelny, "this was one of the problems that lead to the introduction of senses… and encouraged the description theories in the first place." (p. 69) Recall that in previous chapters, the authors use the terms 'coarse-grained' and 'fine-grained' to represent two levels of meaning. "A name has a finer-grained meaning because it has a sense involving a *mode* of designation. (p. 70) Here they identify this sense with the property of designating by the type of d-chain that underlies the name. Recall the coreferential identity statements:

      1.) Mark Twain is Mark Twain   and
      2.) Mark Twain is Samuel Clemens

Instead of associating the different senses of the names with different descriptions, the causal theory associates differing sense of 'Mark Twain' and 'Samuel Clemens' with different underlying d-chains. The differing groundings and reference borrowings that created them involve the sounds and inscriptions of the name 'Mark Twain' in the one case and those of the name 'Samuel Clemens' in the other case. They also differ in that members of a speech community link up the names differently to form different networks. (p. 70)

Not only do 1.) and 2.) differ in meaning, they also differ in informativeness. Recall that according to the Cartesian assumption, competent speakers tacitly "know" the meanings of the terms they use, which would account for their difference in informativeness. In Classic text 17 we found reason to doubt the veracity of the Cartesian assumption; however the authors propose an explanation for the difference in informativeness that does not rely on the causal theory. To appreciate why 1.) is uninformative we must grasp a very basic form of the "law of identity" such that: for any x, x is x. Any substitution instance of the law in this form will be an uninformative consequence of that understanding. So if an instance of the law contains two occurrences of the same name for the same object, it will seem to be uninformative. 2.) on the other hand is not a substitution instance of the law because 'Mark Twain' and 'Samuel Clemens' are different inscriptions and different sounds *etc.* and so will seem to be informative. This explanation does not appeal to any particular theory of the

meaning of a name therefore any such theory that does not make the Cartesian assumption is free to incorporate the explanation. (p. 70)

On pages 70 to 71 the authors set out a further argument as to why the Cartesian assumption should be dropped, but if you are already convinced skip down to the second paragraph on p. 71 where they consider other problems that lead to the introduction of senses. These include existence statements and empty names as well as opacity. Although they postpone discussion of the latter, they do offer the outlines of a solution. Consider again the following sentence from Classic Text 17:

> Jerry Falwell believes Bob Dylan destroyed the moral fibre of America.

The truth of the sentence depends not only on the referent of 'Bob Dylan' but also on its "mode of presentation." This much is in agreement with Frege; however the causal theory differs in that the sentence can only be true if Falwell's belief is grounded in an appropriate causal network. (p. 71)

The causal theory can also account for the problem of the ambiguity of names. Because proper names can have more than one barer we need an account of what determines which barer is designated by a particular use of a name. The authors frame the problem in terms of the distinction between types and tokens. Tokens, recall, are datable, placeable parts of the physical world; whereas types are kinds of tokens. An easy way of remembering the distinction between types and tokens is this: The fact that two people may have the same type of car does not necessarily mean that they share the same token vehicle.

Word tokens are sounds in the air or inscriptions on a page made at a particular place and time. Individual word tokens can be variously grouped into different types. 'Fido' and 'Jock' may, for example be individual tokens of the type *dog*, *male*, *mammal etc*. They may also be individual tokens of the *four-letter name* type. Sound types and inscription types are characterised by patterns of vibrations in the air or patterns of chemical pigments on paper, respectively. They may therefore be as "physical" types; however word tokens may also be classified semantically. (p. 71)

The sound type 'Anne Hathaway' may, for example, refer to the wife of William Shakespeare or to the award-winning American actress, therefore the type is ambiguous. Because we can group individual sound tokens into different types according to whether they refer to the wife of the bard on one hand or the American actress on the other hand we can speak of "semantic" types. We cannot group tokens of different media into the same physical type yet they may be of the same semantic type. As we saw in Classic Text 17, natural language is medium independent therefore spoken and written tokens of Anne Hathaway may belong to the same semantic type.

The problem of ambiguity may now be stated as follows: What is it that makes a given token of an ambiguous physical type belong to one semantic type rather than another? What makes the token 'Anne Hathaway' have one referent rather than another? (p. 72)

According to Devitt & Sterelny, "Intuitively, the semantic type is determined by *what the speaker had in mind* in producing the token." If so then the matter is settled by psychological states of the speaker, but which states? We have already discounted description theories that maintain that it is descriptions that a speaker associates with a name token that count. According to the author's causal theory however, "it is the ability exercised in producing the token that counts." Therefore if

'Anne Hathaway' designates the American actress it does so because it was caused by an ability that was grounded in the actress, rather than the wife of the bard. (p. 72)

The context of an utterance does, of course, provide clues but some of those clues will be relevant to its causal history. Other clues may provide only evidential significance. Thus, when we say that context helps an audience in removing ambiguity, it does so by providing evidence of what a speaker has in mind and hence evidence of the semantic reality, however it should not be mistaken for that reality. We wouldn't, for example, confuse evidence of rain with actual rain. Some philosophers have argued that context alone determines the semantic type of a token; however it is always possible to tweak the context of a token so that it designates some other object. (p. 72 - 73)

The last and arguably most important virtue of the causal theory is that it provides a naturalistic account of the ultimate links between language and the world. Description theories failed in this respect because they take the reference of some words to be dependent on others such that they are internal to language. Whereas what we need is an account of the external relation of language, as a whole, to the world. Recall from Classic Text 21 Hilary Putnam's "Twin Earth" example. The causal theory makes the reference of names dependent on their external relations. Thus, when Fred declares: "I love Gaga. She is outrageously entertaining", he is refereeing to the earthly Gaga, not Twin Earth Gaga because his words stand in a certain causal relation to the earthly Gaga. (p. 73)

Similarly, the reference of the token 'Anne Hathaway' uttered by a speaker who has the American actress "in mind" is determined both by his psychological states, *together with* how those states are causally embedded in the world. "For, the token refers to the object which grounds the ability exercised in producing the token." (p. 73)

Developing the Theory

Devitt & Sterelny freely admit that their causal theory proposed so far is in need of supplementation. In section 4.3 they confine their supplementary discussion to the following topics:

Empty names

Unlike description theory, the causal theory distinguishes empty names which have an underlying causal network, from nonsense syllables which have none. What makes a name empty is that its network is not grounded in any worldly object. According to the authors, this may occur when names are introduced as result of a false posit or work of fiction. If Zappa hallucinates that he has encountered an extraterrestrial visitor and decides to name this being 'Tilda', his attempt at causal grounding will fail. However, if he tells other people about his "encounter" and they believe him that it was real, a causal network will grow around the name just as if it had been real. "Names for various monsters may well have histories of this kind." (p. 74)

Alternatively, a name may be introduced as part of a work of fiction, either as story, novel or film *etc.* If Zappa is not hallucinating but writes a science fiction novel about an encounter with an extraterrestrial named 'Tilda', a causal network may grow up around his imaginative act that is not grounded in an object. Devitt & Sterelny do net explain how or why it might do so but postpone these question to "another time." One possibility is that the name is successfully grounded in copies of the novel, which are real world objects. Of course, each copy of the novel would be a token of the type of the creative work written by Zappa. (p. 74)

Existence statements

There is no difficulty accounting for singular existence on the causal model. If someone says of Zappa's encounter with an extraterrestrial that,

> Tilda does not exist

he or she will be stating something that is both meaningful and true. The statement is true because the name 'Tilda" has and underlying causal network, and true because it is not grounded in any real world object. On the other hand, a believer who claims,

> Tilda exists

would be saying something meaningful but false for the same reasons.

Reference change and multiple grounding

The causal theory, as is, does not accommodate reference change, for the reference of a name is fixed at its dubbing. It is easy to appreciate how a word "dies out". People stop using the word and so cease to add new links to its network. "However, there is no explanation of how the reference of a name can change." The authors cite one of several such examples by Gareth Evans (1973) that emphasize the importance of such explanations. Consider two twins A and B born and dubbed 'Shane' and 'Dawn' respectively. Unfortunately, there is a mix-up at the hospital later and everyone ends up calling A 'Dawn' and B 'Shane'. The mix-up is never discovered and the twins grow up apart, with each "misnamed". Twin A has a fiery temperament, while B is mild and self-effacing. So what are we to make of statements like 'Dawn is fierce' and 'Shane is mild'? On the basic version of the causal theory we wold have to say that both statements are wrong. Twin B was dubbed 'Dawn' and is mild-natured, whereas A was dubbed 'Shane' and has a fiery temperament. But for years since their separation A has been called 'Dawn' and B 'Shane' so that those are now their *de facto* names. Therefore something has resulted in the switching of the references of their names since their dubbings. Clearly the basic causal theory needs to be amended. (p. 75)

The idea called for is that "a name is typically *multiply* grounded in its bearer." According to the original theory, the reference of a name was fixed at its dubbing and all subsequent uses of the name have d-chains that terminate in that single grounding. However there may be many uses of a name that are "relevantly similar to a dubbing." These involve using a name in the presence of the object in direct perceptual confrontation with it. The most common example is social introduction: "Everyone, this is Shane." Other times, a person may pass a remark upon observing the object: "Dawn is unusually quiet tonight." Such uses are as effective in grounding a name as the original dubbing, which need not be the only event linking the name to the world. (p. 75)

So on Evans' example, the name 'Dawn' was original grounded in B at the dubbing, but ever after grounded in A. Since there have been innumerably more groundings in A than the original grounding in B, 'Dawn' now comes to designate A. The authors provide examples of real world, historical instances of reference change. "'Aotearoa' is now widely used in New Zealand as an alternative name for New Zealand, but it was originally the Maori name for only the north island." Similarly, the name 'Madagascar', "for us… is the name of a large African island. However, it (or something like it) was originally the name of a portion of the African mainland." (p. 76) Much the same has occurred in

South Africa with the Greek name 'Azania' (Άζανία) being co-opted to refer to those parts of Southern Africa historically occupied by Bantu settlers.

Any suitable account of reference change must allow for a period of "confusion" where some users continue to use a name according to its old meaning and reference while others begin to use it according to its new meaning and reference. During such a transitionary period the name would be ambiguous with some d-chains underlying it grounded in the original object or place with others grounded in the new object or place. During this period there would be no fact of the matter as to just what object or place an ambiguous name would designate; its reference would be indeterminate. The authors suggest we introduce a new sematic notion, *i.e.* **partial designation** which would allow a name to designate neither object or place but both partially. This would be useful in accommodating cases of confusion; however they do not pursue the matter further. (p. 76)

Direct Reference

Devitt & Sterelny mention influences on the development of direct reference such as David Kaplan's (1989) theory that demonstratives (such as 'this' or 'he') and indexicals (such as 'I' or 'now') are directly referential. *I.e.* they refer directly without the mediation of Fregean senses and are rigid designators, designating the same object in every possible world where they designate at all. (See Classic Text 21) The authors claim that Kaplan's theory is "subtle and complicated" but unfortunately do not present a synopsis, except to state that they are in broad agreement with it and that they intend only discuss its baring on names. According to the authors, the theory does not strictly entail Mill's view of names but does strongly suggest it. (p. 76 - 77)

This is puzzling because the problems pointed out for the Millian view in Classic Text 21 still stand. Faced with such problems, how is it that on the Millian view, names have the course-grained meaning that they do? Firstly, direct reference-theorists claim that such problems are not problems in semantic theory after all. Thus, when presented with the familiar example of identity statements such as:

1.) Mark Twain is Mark Twain   and
2.) Mark Twain is Samuel Clemens

they claim that they do mean the same after all. Although they do recognise that there are some differences between 1.) and 2.) they claim that they are not semantic, but psychological or pragmatic. (p. 77)

Devitt & Sterelny agree that there are some important non-semantic differences between such expressions and that one such difference resides in the cognitive difference in *informativeness*. Nevertheless the authors are "very sceptical of the direct-reference line here." Firstly, they have already argued for the role of meanings in making the difference between 1.) and 2.) a difference in meaning. Secondly, direct-reference theorists provide no alternative view of the role of meanings that would demonstrates that such differences are not differences in meaning. Thirdly, there is no problem in taking non-Fregean senses to be semantic properties, nor would doing so depend on the causal theory of reference. (p. 77)

In Classic Text 17 we saw how meanings play a role in our lives in explaining and predicting behaviour as well as informing us about the world. The difference between 'Mark Twain' and

'Samuel Clemens' is one of meaning. If Alice is prepared to assert, "Mark Twain is a famous author", but not "Samuel Clemens is a famous author", we could predict that on being told "That is Mark Twain" she would rush over to greet him but if told "That is Samuel Clemens" she would not. (p. 78)

If there were another account of the role of meanings that supported the Millian view that 'Mark Twain' and 'Samuel Clemens' do have the same meaning, despite their different modes of reference, direct-reference theorists do not provide it. Furthermore, without providing answers to questions such as, "What purposes do we serve in ascribing meanings to symbols?" or "What is our interest in meanings?" direct-reference theorists provide no justification for transferring the difference in modes from semantics to pragmatics or the theory of mind. (p. 78)

The authors freely admit that their discussion of causal modes of reference requires more explanation; however direct-reference theorists have not objected to this as a reason for rejecting modes as meanings. Even if they had, it would not be a good reason because, on their view, there must still be some non-descriptive-causal link between a name and its bearer that explains the fact that a name refers to its bearer. The authors might be wrong about the nature of the link but they could not be wrong about its existence. So if the property of referring by that link is a candidate for the meaning of a name, direct-reference theorists must accept the existence of the link but deny that the property of referring by it is its meaning. If so they would still require some, non-question begging, principled bias for deciding whether something counts as a meaning. (p. 78)

The *Qua*-problem

Having rejected description theories of names, Devitt & Sterelny readily admit that their causal theory of reference may take us too far in that a person can use a name successfully without having any true beliefs about its bearer. Peter Geach (1962, Ch. 2) for example, has suggested that a user of a name must truly believe that the object is, at least, of a certain *kind*. Yet given the author's account of reference borrowing this need not be the case. Someone can acquire a name "on a very slender basis, wrongly inferring all sorts of things about its bearer." As long as the person is linked into the causal network for a name there is no good reason to deny that he or she can use it to designate what it does. However when we consider how reference is ultimately fixed in groundings, jettisoning *all* descriptive conditions on reference for names takes the causal theory too far. (p. 79)

That this is the case is shown by two features of grounding. Firstly, when a name of an object (or person) is grounded it is done in perceptual contact with it. But this contact is not with the entire object, either spatially or temporally. Temporarily, the contact in grounding might be with only a brief "time slice" of the object's existence. Spatially, it might be with only with a part of the object, such as the bank of a river or a baby's face peeking out from its babygrow. In virtue of what then is the grounding of the whole object and not a "time slice" or undetached part of it? We cannot simply assume that names do, as a matter of fact, always designate "whole objects". Even if they did, it is still possible to name temporal or spatial parts of objects. Think of 'Cape Town' as a named spatial part of South Africa or the 'The Crab Nebula' as a named temporal part of star after it exploded. Similarly, "we might name a tadpole without thereby naming the frog it turns into." (p. 79)

The second feature is illustrated by situations in which the would-be grounder is spectacularly wrong about what he or she is perceiving. I may think I am looking at a cat in the distance, when in fact it is a fat pigeon or the perception of a grey spot caused by a floater in my eye. In such cases the

grounder's error is so great that the attempted grounding simply fails and hence subsequent uses of the name fail to refer. Yet perceptual experience in either case has a causal history so one must ask, "In virtue of what is the name not grounded in that cause?" (p. 79 - 80)

The first consideration above shows that there must be something about the mental state of the grounder in virtue of which the name is grounded in the cause of the perceptual contact *qua whole object.* ('*Qua*' is Latin for 'as'.) It is no use to say, that was the grounder's intention for then the question is pushed aback on the intention. It seems that consciously or unconsciously the grounder must "think of" the cause of his perceptual contact under some general categorical term like 'animal' or 'river' so that the grounding is of the whole entity and not a temporal or spatial part of it. This suggests an answer to the question posed about the second feature. "The grounding will fail if the cause of the perceptual experience does not fit the general categorical term used to conceptualize it." (p. 80)

 So it seems that Devitt & Sterelny's causal theory of names cannot be purely causal. It must be "descriptive-causal" such that a name is consciously or unconsciously associated with a description in a grounding, so that a descriptive element is incorporated into the characterization of a d-chain. However this is not a capitulation to description theory described earlier. Indeed the authors caution that the extent of the move should not be exaggerated. Firstly, the general categorical term associated with the object does not *identify* it or pick out one object from among others of its sort. Secondly, the move is a modification only of the causal theory of grounding and hence reference fixing. The causal theory of reference borrowing remains unchanged and purely causal, so that "borrowers do not have to associate the correct categorical term." (p. 80)

The authors concede that the move from a "total" pure-causal theory of names to a hybrid theory comes at a price. On pages 80 - 81 they list some of these difficulties which are not as severe as for pure description theories. On the other hand, similar hybrid theories for other terms are quite attractive. These issues are dealt with in Chapter 5, therefore we postpone their discussion until then.

Task

Do you think that a causal theory of names is an improvement on description theories? How so? Would a hybrid theory be an improvement on either or would it be beset by the problems of both? Motivate your response by the use of examples.

Feedback

We cannot anticipate your answer; however you may wish to consult Devitt & Sterelny's end of chapter summary of points beginning at the **paragraph at the bottom of p. 80 - 81.

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