

THE COGNITIVE CONTRIBUTION OF NAMES¹

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1. Introduction

In this essay I consider an issue Gottlob Frege raises in the first paragraph of “On Sense and Reference” (1960a): the cognitively relevant difference between “ $a=a$ ” and “ $a=b$ ”, when the latter is true. If it is true, then both sentences assert identity of the same object(s). Still, one could learn something from “ $a=b$ ” that one couldn’t learn from the trivial “ $a=a$ ”. So the terms ‘ a ’ and ‘ b ’ must differ with respect to some cognitively relevant property, in spite of referring to the same thing.

I’ll consider the general form of the problem, where we consider any two sentences “... a ...” and “... b ...”. Frege dealt only with the special case of identity sentences in his *Begriffsschrift* (1879) and mentions only the special case in the first paragraph of “On Sense and Reference”.² But in the latter work, the solution he offers is for the general form of the problem. I will deal with the general problem restricted to the case of proper names.

¹ I’d like to thank my former students, especially Lydia Sanchez and Corey Washington, for many fruitful discussions on these topics. See Sanchez (1998) and Washington (1992). See also Campos and Cirera (2003) for a very insightful discussion of these topics. Andrea Bianchi, Kepa Korta and a reviewer for Oxford University Press provided valuable comments on the penultimate draft.

² He mentions the general form in “Function and Concept” (1960b: 13-14).

Suppose, for example, that you are reading an article in English about the Basque Country that uses ‘San Sebastian’ and other Spanish names for the cities and towns. I know that ‘Donostia’ is the Basque name for San Sebastian. You ask me,

(1) Have you ever been to San Sebastian?

I can reply:

(2) I’ve been to San Sebastian several times

or

(3) I’ve been to Donostia several times.

(2) and (3) differ in what I will call ‘cognitive impact on the hearer’ and ‘cognitive motivation of the speaker’. Hearing (2), you will learn that I have been to the city you asked about several times – that my answer to your question is affirmative. You won’t learn this from (3), or at least if you do, it will be in virtue of some reasoning about my intentions that is not required in the case of (2). That’s a difference in cognitive impact. My plan in saying (2) will also differ from that involved in saying (3). Plans involve intentions and beliefs. If my plan is to give a truthful answer with (3), it will involve the belief that ‘Donostia’ is a name of the city you asked about, and this belief is not required for me to say (2). So the cognitive motivation differs.

I'll use the term 'direct cognitive contribution' for the property of names that is responsible for the difference in the direct cognitive motivation for and cognitive impact of sentences that, like (2) and (3), differ only in containing different names for the same thing.

You might learn many things in hearing (2) – that I have traveled a lot, for example. And I might have a complex motive for saying it; perhaps I want to impress you with how well-traveled I am. These are not *direct*. By 'direct', I mean to get at what you would learn simply in virtue of hearing me and being competent in the language used, whatever further inferences you draw, and what I must believe and intend to do, in order to say (2), given that I am competent in the language used.

The account I will defend is this:

- (A) The direct cognitive contribution of a spoken name is how it sounds; the direct cognitive impact, is that the speaker is referring (or trying to refer, or pretending to refer) to something with a name that sounds this way; the direct cognitive motivation is to use a name that sounds this way to refer (or try to refer, or pretend to refer) to something.
- (B) The direct cognitive contribution of a written name is how it looks; the direct cognitive impact, is that the speaker is referring (or trying to refer, or pretending to refer) to something with a name that looks this way; the direct cognitive motivation is to use a name that looks this way to refer (or try to refer, or pretend to refer) to something.

We might add a third clause, to take care of those who use American Sign Language (ASL) or other sign-based languages.³ Since the theory could be easily extended, I'll confine myself to spoken and written languages.

³ See Macken et al. (1995).

This is not a particularly original idea; indeed, it is not far from what beginning students in the philosophy of language often suggest as the answer to Frege's problem, when they first encounter the opening paragraph of "On Sense and Reference". If there is anything new in this essay, it is the explanation of why this answer is perfectly adequate, and the reasons we teachers of such courses give, in explaining why something deeper is needed, are incorrect.⁴

2. The Proposal Explained and Illustrated

Let's look more closely at our example. Why would I normally say (2), rather than (3), in response to your question? We'll assume that there is nothing ironic or deceptive going on. I intend to answer your question truthfully and helpfully.

As noted, if I don't know the Basque name for San Sebastian, I won't be in a position to say (3); I won't have the required beliefs. Even if I know that 'Donostia' is another name for San Sebastian, however, I can't expect (3) to have the effect on your cognitions that I am after. If I intend to be straightforwardly helpful, I will use 'San Sebastian', rather than 'Donostia' to refer to the city you asked about. From your reading, you have acquired an

⁴ For more about the general perspective employed, see Korta and Perry (2011). We develop an account of speaker's intentions involving grammatical, directing, target and path intentions. The intentions I discuss here would be part of the grammatical intention, which we do not discuss in detail in the book.

idea of, or as I will say, a *notion* of, the city, and you have various beliefs about the city that involve that notion. One of those beliefs is that its name is ‘San Sebastian’. I have no reason to think you also know that it is called ‘Donostia’. So, if I use (3), even if I express the same proposition as I would have with (2) – a singular proposition about San Sebastian, let’s assume – it won’t be a helpful reply.

My plan is that when you hear (2), you will hear ‘San Sebastian’, and will recognize that I am using the same name as you have just used, to refer to whatever I am referring to. You will recognize that I am using the same name, because I am producing the same sounds, or at least the same phonemes, that you did. So you will realize that I am referring to something with that name, and saying of it that I have visited it several times. If you take me to be sincere and helpful, you will take me to be referring with the same name to the same city you referred to, and providing a direct answer to your question.

If I had said (3), you would realize that I am using the name ‘Donostia’ to refer to something, and saying of that thing that I have been there several times. But ‘Donostia’ doesn’t sound like ‘San Sebastian’, so you would not take me to be using the same name you did. You might figure out that I am referring to the same city, but it would involve some additional premises about my intentions, perhaps that I am trying to teach you a new name for San Sebastian.

It is important to keep some simple but important facts in mind. The cognitive effects of hearing a statement do *not* begin with grasping the proposition expressed by the statement. When a person hears a statement with a certain content, she doesn’t grasp the content directly and immediately, although it may often seem like it. She needs to recognize the

words, parse the sentence, apply her knowledge of how the language works, and feed in the relevant contextual facts, to arrive at the proposition expressed.

Suppose you already know that San Sebastian is also called ‘Donostia’. You will take me to have asserted the singular proposition that I have visited San Sebastian several times, whether I use (2) or (3). But your route to this conclusion will not be the same. If I say (2), your knowledge that ‘Donostia’ is another name for the city referred to will not figure into your reasoning, nor into my plan for your reasoning. If I say (3), the premise that I have used a name that sounds the same as the one you used won’t enter in.

Let’s go back to the case where you don’t know that ‘Donostia’ is a name of San Sebastian. I decide to tell you. It seems like I might say either

(4) San Sebastian is Donostia

or

(5) ‘Donostia’ is a name for San Sebastian.

One can work up a bit of a paradox here. On the one hand, in (4) I don’t mention the name ‘Donostia’, but use it to refer to San Sebastian.⁵ So how can you learn anything about the

⁵ Assuming the once standard account of quotation. See Washington (1992) for challenges to that account and an alternative.

name 'Donostia', since I have not said anything about the name? With (5), on the other hand, I don't use the name 'Donostia' at all. As G.E.M. Anscombe once posed the problem,

It is impossible to be told anyone's name. For if I am told 'That man's name is "Smith"', his name is mentioned, not used, and I hear the name of his name but not his name. (Anscombe 1956: 121)

Suppose that I invent a name for the name 'Donostia', say 'Alphonse'. If I tell you

(6) Alphonse is a name for San Sebastian,

I will have said just what I said with (5), that a certain name is a name for San Sebastian. But you will not learn from (5) how to use 'Donostia' as a name for San Sebastian.

Both sides of the paradox depend on the details of how one grasps the content of a statement. When one hears a quote-name, one hears the very same sounds that one hears when one hears a use of the quoted name. Even if the user of the quote-name says "quote" and "unquote" before and after the name, part of what one hears will be the same sound one hears when the quoted name is used. This is true, even if one assumes the simple theory that quotation produces an expression that does not have the quoted name as a *syntactic* part. Many poems and many puns achieve their effects because we hear parts of expressions that are not their syntactic parts, and the same goes for teaching names. That is, when one hears a quotation name (whether the quotes are pronounced, indicated with finger movements, or just left implicit), one hears the sounds of the name quoted. So one learns

how to say the name, and gains a bit of know-how: how to refer to San Sebastian by using a name with the sound ‘Donostia’. One doesn’t learn this with (6).⁶

The same considerations deal with the first part of the paradox. When I say (4), you realize that by making the sounds I do, I am producing a name that is a way of referring to whatever I am referring to. Because you understand English, you realize that (4) is true if and only if the two names used refer to the same thing. Because the names are used, you hear them, and recognize how to produce two names for the same thing. The sounds heard (or the letters seen) are what the two ways of introducing a name, illustrated by (4) and (5), have in common.

To repeat, this isn’t to say that (4) is about names, or sounds, but only that in understanding (4) you will be led to have beliefs, or at least to acquire know-how, about names and sounds as part of the process of recognizing the sentence and parsing it. Nor is it to deny that (5) and (6) express the same proposition, a singular proposition about the name ‘Donostia’. Even so, in grasping what is said, you will have different perceptions, and rely on different beliefs. Hearing (5) puts you in a position to pick up a skill that hearing (6) does not.

I might use (3) if I have a subtler plan in mind. I might think that if I say (3), you will assume that I am being helpful, and replying to your question. The simplest way in which that might be the case is that ‘Donostia’ is another name for San Sebastian. If I think you

⁶ (5) states a linguistic fact, not a “meta-linguistic” fact, as is sometimes said. If I say “Salt Lake City is in Utah” I use language, but state a fact about geography not about language. When I say (5) I use a meta-linguistic device, but I state a linguistic fact.

are sufficiently clever to engage in this reasoning, I might use (3), as a way of answering your question that will teach you something, that ‘Donostia’ is also a name for San Sebastian.

My proposal has two parts, (A) regarding spoken names, and (B) regarding written (or typed) names. If we think of the conversations we have looked at as occurring in an email or I-chat exchange, parallel considerations will apply to those that have come up in thinking of them as spoken conversations. But the cognitions involved, and the skills one may acquire, are not the same. When I type (2) in response to your typing (1) you will recognize how the name I am using is spelled, that it is spelled the same way as the name you used was spelled, and will infer that I am using the same name to refer to the same city.

Suppose we are at a party, where people are wearing nametags. You and I are talking to a fellow with the name-tag ‘Jean Foucault’. He happens to be a Frenchman, with the French version of ‘John’ as his first name, but when you see the name-tag you think his first name would be pronounced the same as ‘Gene’. If I write you a note that says, “This is ‘Jean Foucault’” you won’t learn anything new, since you can already see the nametag. But if I say to you, “This is \djon\ Foucault” things are quite different. Perhaps you already have a notion of a well-known person whose name sounds, to your untrained American ear, like ‘\djon\ Foucault’, and have been looking for him, but mistakenly assume his name is spelled ‘John’. By saying what I did, I may lead you to realize that this is the fellow you are looking for, and that his name is spelled differently than you thought. I can’t get that effect with my note. (Indeed, I might not be able to get it if I pronounced his name in the correct French manner.) So the direct cognitive contribution differs in the spoken and written cases.

3. Nambiguity

It seems that the names in natural language do not work like individual constants, in that the same name can be assigned to more than one individual. I call this “nambiguity”. David Kaplan in “Words” (1990) has provided interesting and somewhat persuasive reasons for thinking this isn’t exactly how we should describe nambiguity; rather, in natural language the same *vocables* are used to refer to different individuals. Names should not be individuated in terms of their sound (or spelling), but historically. ‘John Adams’, the name of the second President of the U.S., and ‘John Adams’, the name of the sixth President of the U.S., are different names that sound the same. As one would expect, Kaplan’s way of looking at things is perfectly coherent, and indeed for my purposes in this essay it might be good to adopt it. It makes ordinary proper names more like individual constants from a logical point of view. The problems I will turn to now would arise, but in a slightly different form. But I am going to stick with the untutored view I am used to, that the second and sixth presidents shared the name ‘John Adams’ (although not the name ‘John Quincy Adams’), and that they and I share the name ‘John’.

This fact of nambiguity, however we conceive of it, is one that speakers and hearers are aware of, and take account of in planning and interpreting discourse. I believe it argues in favor of taking utterances to be the focus when we think about pragmatics. I take an utterance to be an intentional act of language use, by a speaker at a time. From now on I will use ‘statement’ to mean an utterance of a declarative sentence.

Suppose you say, planning a trip to England,

(7) I'm going to visit Oxford on my trip to England,

and I reply,

(8) Oxford is an interesting city.

'Oxford' is the name of a university as well as a city, and there are other cities with the same name. One is Oxford, Nebraska, in the south-central part of the state, which has a population of about 1000. I sometimes use the name that way, when talking to my cousins about old times in Nebraska.

Even if you are one of my cousins, and are familiar with Oxford, Nebraska, I will assume that in the context of a remark about visiting England you are either referring to the city or the university there when you say (7). It might occur to me to wonder which one you refer to, but I won't worry much about it, since if you visit the university you can't help but visit the city, and it is unlikely you will visit the city without visiting some of the colleges of the university. In saying (8) I refer to Oxford, England. If I take it that you are referring to the university, I might wonder if you know that 'Oxford' is also the name of the city in which its colleges lie. But I would assume you would learn this from my remark, if you didn't already know it.

Although most of this wouldn't be a conscious part of the planning that went into my utterance of (8), it is part of the plan I implicitly rely on. To understand the cognitive

contribution of 'Oxford' in our conversation, pragmatics has to account for this plan.

Semantics has to supply the facts, the various things of which 'Oxford' is a name.

My overall intention is to tell you something about the place you have just said you plan to visit. I intend to get you to believe that I believe that Oxford, England is an interesting city, and, trusting my judgment in such matters, to believe it too, and to be happy that a visit there is on your schedule. So what, exactly, is my plan?

I plan on your hearing my utterance, and being able to discern without much effort which words make it up, and to realize that it is directed to you, as a response to your statement, and to assume that I intend it to be a helpful and relevant response. On this basis, I plan for you to realize that I am referring to Oxford, England, and not Oxford, Nebraska. Then there is a three-way fork in my plan. If you were referring to the city, I expect you to realize I am talking about the same city. If you were referring to the university, but realize it is located in a city of the same name, I expect you to take me to be helpfully and relevantly referring to that city, since the truth of my remark requires that I be referring to a city. If you don't know that, I expect you to realize that there is a city by that name, to which I am helpfully and relevantly referring, and to figure out that it is the city in which the university is located. Any of these forks will lead to the result that you have a notion of the city of Oxford, England, either pre-existing or acquired along the third fork, with which you now associate the property of being interesting, or at least being believed by me to be interesting.

What then is the cognitive contribution of 'Oxford'? I could have expressed the same proposition by saying

(9) Oxenafordia is an interesting city

using the original Saxon name of the city (at least according to *Wikipedia*). This might have worked, but my plan for your understanding would be more complicated. I would rely on your reasoning that while I was being helpful and relevant I was also showing off, so ‘Oxenafordia’ is most likely an obscure name for Oxford.

Suppose, on the other hand, that I do say ‘Oxford’, but I mumble a bit, so you can’t quite make it out. If you parse my sentence and recognize the other words in it, you will realize that I have referred to something, using a word you couldn’t quite make out, and said of it that it is an interesting city. This much, plus the assumption that I am being relevant, may enable you to recognize that I said ‘Oxford’, even if there was not enough information reaching your ears to figure that out otherwise. So what cognitive difference does the word ‘Oxford’ make, when you realize, either immediately on hearing it or after reasoning a bit, that it was the word I used?

The immediate effect, and the first part of my plan for you, after you have identified the words and parsed the sentence, is that you will realize I am using the word with the sound ‘Oxford’ to refer to something, and going on to say something about it. (By saying ‘first’, I do not mean that my plan requires this to be the first thing you do chronologically. My plan will be satisfied if, as in the above paragraph, you settle on this fact after doing some other reasoning. The reasoning may proceed in bit and pieces, as you realize how things you have figured out about my utterance constrain the possibilities for other parts. And it is unlikely to be very explicit.)

The next part is that you will realize that I am using ‘Oxford’ as a name. It must be a name, for what else could it be? ‘Ox’ and ‘ford’ are not terribly active words in many of our vocabularies these days, and besides “Ox ford is an interesting city” doesn’t make much sense. The cognitive effect of a use of the name ‘Oxford’, then, once it has been identified as the proper name that it is, is simply the thought that the speaker is referring to something that the name pronounced ‘Oxford’ may be used to refer to, most likely because it is a name of that thing.

The cognitive cause of such a use is the intention to use the name ‘Oxford’ to refer to something it can be used to refer to, because the thing has that name (or for some special reason, can be so used in this case).

Given this account of the cognitive contribution of the name ‘Oxford’, the rest of my intentions in uttering (8) fall into place in virtue of the connections cognitions have to one another. Once you realize that I am referring to a thing with the name ‘Oxford’, then, assuming I am reasonably knowledgeable, helpful and relevant, you will realize that it is a city that has the name ‘Oxford’; you consider associating what I say with your pre-existing notions of cities with this name; since I am replying to your remark in a helpful way you will disregard the possibility that I am using it to refer to Oxford, Nebraska; if you already have a notion of Oxford, England, you will associate it with that notion; if not you will form such a notion, and associate it with that one. In any case, you will come to believe, or at least grasp, the proposition that Oxford, England is an interesting city, realizing that I intended to convey that proposition, and part of my plan was to refer to Oxford, England with ‘Oxford’.

So the cognitive contribution of an utterance of a name N is simply that the speaker intends to use a name with the sound (or spelling) N has, in order to refer to something, and to say something about that thing. This is something that a competent speaker knows how to do, and competent hearers can grasp.

Our awareness of nambiguity raises the possibility of thinking we have a case of it when we do not; that is, a case in which one thinks there are two things with the same name, although there is actually just one. For the sake of variety, I won't use Kripke's Paderewski example (Kripke 1979). Suppose you have heard of John Etchemendy, the well-known logician and philosopher of logic; you know he once taught at Princeton, and assume he still does. Then you read about John Etchemendy, Stanford's Provost. You assume there are two John Etchemendys – perhaps you think the logician is still at Princeton. Besides, you may have a (completely unfair and inaccurate) stereotype of logicians, and so assume that since he is a logician, Etchemendy must be obsessive and poor at practical matters, and probably unskilled in diplomacy and quite likely positively abrasive and annoying. Given this prejudice it doesn't occur to you that a logician could end up being Provost of such a well-run university, with all that such a job entails, even if he moved to Stanford without your knowing it. But of course you are wrong.

Suppose you and I are talking about *Language, Proof and Logic*, the book Etchemendy wrote with the late Jon Barwise. I say, "I don't know how Etchemendy finds time to do a new edition, given the demands of being Provost at Stanford". You say,

(10) Etchemendy is not the Provost of Stanford. That person is someone else with the same name.

Your situation is that you have two separate notions in your minds, acquired at different times no doubt, which are associated with the name ‘John Etchemendy’. One notion is also associated with the property of being a logician, the other with being Provost. The first sentence of (10) is motivated by beliefs involving the first notion. You intend to refer to that person with ‘Etchemendy’, and you plan on me recognizing that you are referring to that person because we have just been talking about him. The second sentence of (10) is motivated by a belief with the second notion as a component. You expect me to realize that with ‘that person’ you intend to refer to a person I mistakenly identified with the logician, who actually possesses the property of being Provost, which you take me to have mistakenly attributed to the logician.

I could reply in a lot of ways, but suppose I say (given that we are both philosophers and like identity sentences), “Oh no!”:

(11) John Etchemendy is John Etchemendy.

My plan is to refer to Etchemendy twice with the name ‘John Etchemendy’. I intend for you to grasp that my first use is intended to co-refer with your use of ‘Etchemendy’, while the second is intended to co-refer with your use of ‘that person’. (It won’t matter much if you reverse them.) The cognitive effect I wish to achieve is that your two notions become linked, or one absorbs the other. This sort of example doesn’t require any change in our account of the cognitive contribution of names. My first use of ‘John Etchemendy’ reflects my intention to use ‘John Etchemendy’ as a way of referring to a certain person. I have the

further intention of making it clear that I am co-referring with your use in (10). The cognitive effect on you, if successful, is that you realize I am referring to someone that can be referred to with ‘John Etchemendy’, and then inferring that the person in question is the one you just referred to in that way. I intend for you to recognize the second use of ‘John Etchemendy’ as referring to the same person you referred to as ‘that man’. The direct cognitive contribution of the name is the same in both cases; I am referring to someone by pronouncing the same name you did. The difference in the intentions I expect you to recognize, in my first and second uses, are not due to a difference in the direct contribution of the name ‘John Etchemendy’, but due to your appreciation of other factors, as for example that I am trying to be helpful and relevant, to say something true, and to disagree with what you just said.

4. The Semantics of Names

My proposal belongs to pragmatics; it has to do with what speakers are trying to achieve in the minds of hearers by using names. What do these pragmatic considerations tell us about the semantics of proper names?

Since my interest in semantics has mostly to do with the use of language in general, with pragmatics, I see much to be said for an utterance-based semantics. Pragmatics deals with causes and effects, productions of tokens of types, by speakers with certain motives, and apprehensions of them by hearers, with immediate cognitive effects. In

“Demonstratives” (1989), however, David Kaplan says that for the purposes of logic,

utterances have their drawbacks. Although a semantics of utterances might seem ideal for dealing with context relative expressions of the sort he considers, demonstratives and indexicals, he instead gives us a semantics for sentences-in-context. A context consists of an agent, a location, a time, and a possible world. In a proper context, the agent is at the location at the time in the possible world. The agent, however, need not say anything; the agent is a potential speaker, but need not say anything at the time in the location in the world. The time need not be an interval long enough to utter the sentence or sentences in question; one wants to be able to evaluate the validity of arguments assuming that the context is fixed for all the premises – perhaps an infinite number of them – without requiring fast speaking of the propounder of the argument.

Expressions have *characters*, which provide them with a semantic value, or content at a context; that content is an *intension*, a function from world-time pairs to appropriate entities. Semantics is thus provided for pairs of contexts and expressions, and yields intensions for them. For a pair of context and sentence, it yields truth conditions, a proposition in the sense of a function from world-time pairs to truth-values. The worlds and times (the ‘circumstance of evaluation’) in the range of intensions are not to be confused with the worlds and times of the context (the ‘context of use’). So for example if I say, here, in Palo Alto, today (Thursday) in the actual world “It will rain here tomorrow,” what I say is true (roughly) in every world in which it rains in Palo Alto on Friday. (Roughly, because it might rain somewhere in Palo Alto but not here; or Palo Alto might be destroyed overnight, or have never existed.) Kaplan’s theory does not require a possible worlds account of contents; as he makes clear in a variety of places, one might use instead a theory of structured propositions, and in some ways this will be a more intuitive fit.

Kaplan treats proper names as individual constants, or, more accurately, the only model he provides us for proper names is individual constants, which have a constant character and a constant intension. ‘San Sebastian’ yields the same intension in any context of use, and that intension yields the same city at any world-time pair. If propositions were not taken to be intensions, but some sort of structured objects, he could treat proper names just as they are standardly treated in the semantics of the predicate calculus, as simply being assigned to individuals.

It is not hard to adapt a Kaplan-style semantics for pragmatics. One merely has to make some connections between contexts in Kaplan’s sense, and properties of utterances, connections that are readily suggested by the way in which he takes data about utterances to motivate the semantics. We assume that utterances have speakers, occur at times and in places and in worlds. So speaker-of, time-of, location-of and world-of are roles that these things play with respect to utterances. By constructing a context consisting of the occupants of these roles, we can use Kaplan’s semantics in an utterance-based pragmatics.

But our semantics will have to provide us with what we need to deal with ambiguity, which cannot be ignored in pragmatics. The simplest way to do this would be to say that semantics deals with refined proper names, which have no ambiguity, while in pragmatics we have to deal with raw proper names, which do. A raw proper name will correspond to a set of refined proper names, and in doing the pragmatics of the utterance, one has to account for the need for the hearer to recognize, and the speaker to make clear, which refined proper name is in question. If we adopt Kaplan’s way of looking at it, we simply say that semantics deals with names, but pragmatics has to deal with vocables and strings of written letters.

We often do semantics without worrying about ambiguity; we simply specify that the language we are considering has been disambiguated. We can do the same for nambiguity. Typically when we teach logic, we alert students to the dangers of ambiguity and nambiguity, and how to eliminate them in formulating an argument carefully, and then turn to formal logic, to teach techniques of and identify mistakes in reasoning using disambiguated languages. The semantics for the formal language used in this enterprise needn't concern itself with ambiguity or nambiguity.

For some other purpose, say a natural language understanding system, we may want a formal treatment of ambiguity and a semantics that allows us to represent a level of partial understanding of the truth-conditions of ambiguous sentences. If we want to worry about ambiguity in the semantics, we should, I think, worry about nambiguity there too. This might be crucial for analyses of computer searches, where nambiguity is pervasive, and a key reason for explosions in search results. For such enterprises, the lexicon will have to be more complicated than in the familiar semantics we teach in logic, where the languages are taken to be unambiguous and unambiguous.

The point I want to emphasize, however, is that the cognitive contribution of names will simply fall out of the semantics of names. The fact that a name stands for a thing, whether only one thing, or nambiguously, for a number of things, is a fact about both the name and the thing, which a competent user of the language will understand. It is this relation between the name and the thing that we rely on, in speaking and understanding, when we pay attention to the cognitions that lead to the use of one name rather than another, or the cognitions that one use of a name rather than another lead to. The cognitive contribution of

names neither requires nor motivates something in the semantics that associates names with ideas, or Fregean senses, or anything else except what they stand for.

5. Empty Names

Nothing in the account I have given requires the names that are used stand for anything, however. In natural language we use lots of empty names. There are the names that occur in fiction, myth, and legend, as well as names that enter into more straightforward discourse due to errors, lies, and the like.

Suppose a child tells a lie about why the cookies are gone from the kitchen counter. “A man knocked on the door. He said he was Ephraim, from our church, and had to pick up a plate of cookies for the picnic. So I gave him the cookies”. At first his parents believe him, and put some energy into trying to find out who Ephraim is, and why he took the cookies. His mother asks, “Well what did Ephraim look like?”. But eventually she concludes, “Ephraim does not exist”. The child uses “Ephraim” to pretend to refer to someone. At first his mother uses it intending to refer to someone, the man she thinks took the cookies. Her uses of “Ephraim” are instances of what I call “coco-reference”, that is *conditionally co-referring*; intending to refer to the same thing referred to by an earlier utterance, *if* the earlier utterance referred to anything.

A semantics that allows for ambiguity will provide us with two relations among utterances of names, those that employ the same name, and those that refer to the same thing. Whatever semantics we adopt for empty names, for pragmatics we will need a bit

more structure, to provide for utterances that are linked by chains of coco-reference. My strategy, suggested by Donnellan's treatment of existence statements in "Speaking of Nothing" (1974), is to have uses of names assigned to networks of coco-referring utterances, which may go back to a referent, or may be "blocked".⁷

Whether one adopts such an approach, or instead takes empty names to refer to some sort of unreal objects, or handles them in some other ways, I don't think any plausible account of empty names should require us to deviate from the minimalist account of the cognitive contribution of names: that the speaker is using a name with a certain sound or look to refer to something, or try to refer to something, or perhaps pretend to refer to something. Theories of empty names will differ in what that contribution leads to on the part of the hearer, and what shape the full plan of the speaker has. But they should all agree about the direct cognitive contribution of the name.

6. Names in Indirect Discourse

Let's briefly turn to indirect discourse. Here's an example. Following the energetic Ivan's lead, a group of linguists and philosophers headed towards a conference in San Sebastian have boarded a bus. Some of us begin to worry if Ivan led us to the right bus. I ask him, and he says, "This bus is headed to San Sebastian. I'm sure of it". Reporting back to the others, I might report:

⁷ See Perry (2001, 2012a, 2012b); Korta and Perry (2011).

(12) Ivan said that this bus is headed to San Sebastian

or

(13) Ivan said that this bus is headed to Donostia.

Surely (12) is the most natural thing for me to say, especially if Ivan has never heard of Donostia, or has but doesn't know that Donostia is San Sebastian. However, suppose that although Ivan, on his first trip to the Basque Country, doesn't realize that San Sebastian is Donostia, the rest of us do; we are veterans of these conferences, and are in the habit of using 'Donostia' once we have arrived, since the local Basques prefer that name. Given that I am conveying what Ivan said as a way of reassuring the veterans that the bus is headed the right place, I might use (13).

Whichever name I use, my use is motivated by the belief that the name is a way of referring to a city, the one that Ivan said the bus was headed to and the one the veterans want to get to. The effect I hope to have on my hearers is that they will hear the name, realize that I am using it to refer to a city, and saying of that city that it is the one to which Ivan said the bus is headed, and will realize, since they know the name I am using is a name of San Sebastian, that that is the city I am referring to. This is all in accord with my proposal about the cognitive contribution of names.

Suppose, as I return, someone says, “Well, did Ivan say this bus is headed to Donostia or not?” I could still reply with either (12) or (13), but I might also be motivated to say something like

(14) He didn’t say this bus was headed to Donostia; but he did say it was headed to San Sebastian; I’m sure he is right about that, so you can relax.

Here I intend to convey information not only about where the bus is headed if Ivan is right, but also about the way he conveyed that information to me. Some philosophers think the first clause of (14) is false, because Ivan did say the bus was headed to San Sebastian, and San Sebastian is Donostia, but that although false I may nevertheless use it to pragmatically convey a correct understanding of what happened.⁸ Others think it is true, because there is a pragmatically inferred but semantically relevant “unarticulated constituent” that narrows consideration to things Ivan said using ‘Donostia’, or said in virtue of beliefs involving a notion that governs his use of that word.⁹ Whoever is right, it seems that I use ‘Donostia’ in the first clause as a way of referring to San Sebastian, and I do with the intention that my hearers will infer that I am doing so for a reason, especially when they hear the rest of (14). How my subsequent plan should be thought of is the matter of dispute. Do I want my hearers to figure out the unarticulated constituent of the content of the first clause of my

⁸ See Barwise and Perry (1983) for such a view.

⁹ I develop such a theory in Perry (2012a); see Crimmins and Perry (1989) and Crimmins (1992) for similar theories.

report? Or do I want them to figure out why I am trying to convey something in the first clause that contradicts what I say in the second? In either case, the cognitive contribution of my use of ‘Donostia’ is the same: my intention to use ‘Donostia’ as a name of the city I am talking about.

7. Is This Account Metalinguistic?

A common response to my account of names is that I am giving a “metalinguistic” account. This is often associated with a worry that on my account mastery of proper names requires a level of sophistication of which children, and indeed most adults, do not possess. However, this is not so.

Suppose I say, “San Sebastian is in the Basque Country”. This is not a statement about language, but about a city and a region in Iberia. Of course I use language to make the statement. I am exploiting facts about language: that ‘San Sebastian’ is the name of a city, and that ‘the Basque Country’ picks out a region. But my statement is a part of geography, not of linguistics.

Now consider the statement, “‘Donostia’ is a name of San Sebastian”. It states a linguistic fact, that a certain relation obtains between a name and a city. In making the statement, I exploit a meta-linguistic device, quotation. But I am not saying something metalinguistic. I am talking about a name of a city and a city, not the name of a name of a city and a city.

A geographic theory will need to use language to refer to cities, continents, regions, oceans and the like. A linguistic theory will need to have ways of referring to expressions, and discussing their properties. But when I say that ‘San Sebastian’ sounds different than ‘Donostia’ I am talking about words and their properties, not about names of words.

The characterization of my view as “metalinguistic” might lead one to suppose that it relies on sorts of reasoning of which many normal language users, and especially small children, are not capable. Suppose a young child tells me she is going to visit San Sebastian, and I reply “San Sebastian is very beautiful”. Does my account of what goes on rely on some kind of “metalinguistic” knowledge or reasoning that is unavailable to her? I cannot see that it does. If her hearing is good and my pronunciation reasonably adept, she will take the sounds she hears, ‘San Sebastian’, to be a name with which I am referring to something. This doesn’t mean that she needs to have the concept of a name, or of reference, or anything beyond the reach of children. She knows how to react to uses of names, how to infer from them things about what the speaker believes, and so on. The knowledge we ascribe to children who understand how to use language, and to most other people for that matter, is mostly a matter of know-how, and does not require any grasp of the concepts philosophers and linguists employ to explicitly formulate their theories about the facts that are grasped in this way.

8. Back to Frege

What then, on my account, should we say about Frege's original problem, the difference between sentences of the form $a=a$ and those of the form $a=b$?

Frege first posed the problem in his *Begriffsschrift*. The view I am proposing is in some ways similar to Frege's view in that work, a view he found unsatisfactory by the time he wrote "On Sense and Reference". In the earlier work, Frege was working with the concept of "conceptual content". The basic idea was that the conceptual content of a sentence containing a name, something of the form $F(a)$, will be individuated by the conceptual contents of the name and the predicate. The conceptual content of a name is the thing it refers to. So, in the *Begriffsschrift*, the conceptual content for such a sentence is individuated by the object the name names; it is, more or less, what we now call a singular proposition.

Frege already thought he saw a problem with this, when he wrote the *Begriffsschrift*. He had special section to deal with identity statements. Without the section, the conceptual content of " $a=a$ " and " $a=b$ " would be the same, if the latter were true. To avoid that result, Frege adopts a revised account of conceptual content for identity statements. The conceptual content of " $a=b$ " is that the name 'a' names the same thing as the name 'b'.

In "On Sense and Reference" Frege rejected his *Begriffsschrift* view, because it got the *subject matter* of identity statements wrong. Consider the insightful Babylonian astronomer, who first announced to a startled audience, "Hesperus is Phosphorus". This was not a discovery about the names 'Hesperus' and 'Phosphorus'. The names are used to announce the discovery, but they are not what the discovery is about.

This is a good objection to Frege's *Begriffsschrift* view, but not to my view. I think Frege was mistaken to add the special section for identity statements to that work. For one

thing, it deals with only a special case of a general problem. It's true that the astronomer imparts knowledge with "Hesperus is Phosphorus" that he does not with "Hesperus is Hesperus". But he would also impart knowledge with "Hesperus is visible in the morning" that he would not with "Phosphorus is visible in the morning". Every Babylonian was taught that you could see Phosphorus in the morning, but with "Hesperus is visible in the morning", the astronomer imparted new knowledge.

The *Begriffsschrift* without the special treatment of identity statements fits better with my view. Frege could have stuck with the view that the conceptual content of statements that differ only in the names used for the same object are the same, even in the case of identity statements. But the link between the statements and their contents depends on different rules – just the rule for 'a' in the first case, but the rule for 'b' in addition in the second. Hence what the speaker needs to know to use them, and will expect her listener to know, or to learn from her statement, will differ.

The problem, on my view, was that Frege wanted one level of content, conceptual content, to serve all the needs of an explanation of the cognitive significance of statements. This doesn't change from the *Begriffsschrift* to "On Sense and Reference". What changes is what he takes this one level of content to be: conceptual content in the first work, sense in the second. On the later system, simple names are assigned directly to senses, and only indirectly to the objects the senses pick out. This makes a lot of sense given Frege's overall project, to provide a language for logic and mathematics, in service of his defense of logicism. In a well-behaved language of the sort he recommends, there will be no ambiguity and no empty names. In addition, there will be no individual variations in the way expressions are understood, that is, in which modes of presentation are associated with

them simply in virtue of linguistic competence. This seems like something one might reasonably require of a group of careful communicating logicians. In fairness to me and the undergraduates, however, we should note that in “On Sense and Reference”, he does not restrict his theorizing to well-behaved mathematical languages and the logicians that use them.

Frege was well aware that ordinary communication proceeds fairly well even if people associate different identifying conditions with names, so long as the different conditions pick out the same object. This would be allowed on the *Begriffsschrift* view, as I am somewhat anachronistically thinking of it. The lexicon would associate names with things. It would doubtless have to present those things in some way or another, but the thing, and not a mode of presentation of it, would be the conceptual content. But such looseness is not what we would expect of efficiently communicating logicians. A lexicon in the spirit of “Sense and Reference” associates modes of presentation with names, providing them with the same sense for all who competently use it.

Assume our Babylonian astronomer says,

(15) Hesperus is Phosphorus.

He expects that those linguistically competent Babylonians who hear him and trust him will come to believe that the first celestial object visible after sunset is the last celestial object visible after sunrise. He also expects that such Babylonians will come to believe that ‘Hesperus’ and ‘Phosphorus’ refer to the same object.

The *Begriffsschrift* theory, including the special section on identity, gives a direct explanation of the second expectation. The cognitive content of (15) is simply that ‘Hesperus’ and ‘Phosphorus’ refer to the same object. But it seems to provide no explanation of the first expectation. How can the astronomer expect to convey information about celestial objects by talking about names? He would have to rely on a background assumption, that these are in fact the conditions his audience associates with the name ‘Hesperus’ and ‘Phosphorus’, so once they realize those names co-refer, they will realize the conditions are co-instantiated.

The “On Sense and Reference” theory gives a direct explanation of the first expectation. The senses of ‘Hesperus’ and ‘Phosphorus’ are the conditions of being the first celestial object visible after sunset, and the last one visible after sunrise. Anyone who understands (15) will know that if it is true, the first celestial object visible after sunset is the last one visible after sunrise. However, it seems to provide no account of the astronomer’s second expectation. The proposition expressed by (15) seems to have nothing to do with names. He will have to rely on a background assumption, that, having been led to consideration of the conditions linked in the proposition by hearing the names ‘Hesperus’ and ‘Phosphorus’, the audience will realize that if the conditions are co-instantiated, the names will co-refer.

So neither account explains all that can be learned from “Hesperus is Phosphorus”, its cognitive impact, in terms of a single level of content.

Given this, and setting aside the project of developing a language for meticulous logicians, the *Begriffsschrift* account minus the special section on identity – the view that approximates to the one I am advocating – seems pretty reasonable.

The astronomer knew that a typical Babylonian knew that ‘Phosphorus’ stood for the last heavenly body (not counting the Sun and the Moon) to disappear from the morning sky. This is a singular proposition involving a name and a celestial object, Venus in fact. Similarly she could be expected to know that ‘Hesperus’ stood for the first celestial object to appear in the evening, after sunset (not counting the Moon), which of course is also a mode of presentation of Venus. For many Babylonians, of course, this knowledge about the names would have been a matter of know-how, not something they would be able to readily articulate.

When the astronomer says “Hesperus is Phosphorus” the conceptual content of his remark is the true singular proposition, that Venus is Venus. He can safely assume that, having heard the object referred to as ‘Hesperus’ and the second object referred to as ‘Phosphorus’, a Babylonian in his audience will realize that if his remark is true, ‘Hesperus’ and ‘Phosphorus’ co-refer, even though that fact is not the conceptual content of his remark. And he can safely assume, given what he knows about Babylonians, that she will realize that since those names co-refer, the last celestial object to disappear from the morning sky is the first to appear in the evening sky. Identity is rather special; the conceptual content gets at neither of the things he can expect his audience to learn. But it is the link between what he wants them to learn, and what he assumes they already know.¹⁰

¹⁰ Abbreviations can be used to make the same point. Suppose I am listening to a lecture about the continuum hypothesis, and the speaker says “A lot has been written about CH”. I’m familiar with ‘CH’ being used as an abbreviation for ‘courthouse’, and am momentarily confused. Then I realize he is using it as an abbreviation for ‘the continuum hypothesis’. On Frege’s later theory, I now

If we see making statements as parts of human actions, motivated by beliefs and intentions, the idea that there is a single level of content that captures all the aspects of what I am calling cognitive motivation and cognitive impact, is implausible. And once this is seen, the undergraduate's initial response to Frege's worry at the beginning of "On Sense and Reference" seems basically correct. The difference in cognitive significance among statements containing co-referential names but otherwise alike, is due to differences in beliefs and intentions about names on the speaker's part, and knowledge about them on the listener's part; that is, ultimately, which sounds or shapes the speaker thinks he can use to refer to what he is talking about, and his expectations about which sounds and shapes the listener will perceive him to be using, and what the listener already knows, or can figure out, about those sounds and shapes. This doesn't mean the speaker is talking about sounds and shapes, but merely the beliefs about them are involved in the cognitive motivation and impact of the statement.

9. Concluding Thoughts

associate the same sense, the hypothesis that there is no transfinite cardinal between the cardinal of the set of positive integers and that of the set of real numbers, with both 'the continuum hypothesis' and 'CH'. Having done that, I learn, from his remark, that much has been written about this hypothesis. This is exactly what I would have learned had he said, "A lot has been written about the continuum hypothesis". But from that I would not have learned that 'CH' was a way of referring to this hypothesis.

This essay is intended to support a rather minimalist accounts of the semantics of proper names, at least insofar as we take semantics to be the construction of theories of truth-conditions or other satisfaction-conditions for complex expressions on the basis of their parts, how they are put together, a lexicon, and contexts in something like Kaplan's sense. The key fact is what thing, or things, the proper name stands for. No special link is needed in the semantics between names and descriptions, identifying properties, and such. It is not that there are no such links. If I point to David Israel at a party and say, "That man is David Israel", you will link the name 'David Israel' with your perception of that man. After the party, it will remain linked with the notion you formed of him, which will probably be associated with salient features of him that you remember. You may use these to identify him on other occasions and learn more about him. You may use the other things I tell you about him to recognize articles by and about him; you may use them to filter the results when you Google 'David Israel'; you may in the end write the definitive biography of him. All of these mental structures could be called the 'cognitive contribution' of the name 'David Israel' for you at different times. But, as have explained the term, they are not its *direct* cognitive contribution. They are not that feature of the name 'David Israel' that explains the different cognitions that lead to its use and lead from its use, in contrast with other names that are occasionally used for him, like "Lambdaguy".

Of course 'semantics' is also appropriately used more broadly for the theory of meaning, a part of the philosophy of language and cognitive science that looks at all sorts of issues involving meaning. Semantics, in this sense, will have the responsibility not simply of providing a lexicon that tells us what words, including proper names, stand for, but also

explaining how they come to stand for the things they do, how we learn these facts, and much else.

Referentialism with respect to proper names, as I use the term, is the view that proper names contribute the thing named to the proposition expressed by statements in which they are used. A referentialist will then be a minimalist as to what the semantics, in the narrow sense, of proper names should look like. Semantics need not associate names with descriptions, identifying conditions, or Fregean senses, at least as those are usually conceived. So I have in effect been defending referentialism, in this sense, against the charge that it does not provide an account of cognitive contribution of names, adequate to solve Frege's original problem.

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