Víctor Cantero-Flores (*)

Frege's puzzle and the a priori

Resumen: *En este artículo ofrezco una reconstrucción de la defensa de Stavroula Glezakos de que no hay un puzzle de Frege. Identifico las tesis principales, elaborando una reconstrucción filosófica de su argumento, y examino una dificultad posible: su argumento puede tener la consecuencia de excluir todo conocimiento a priori. Intento disipar la dificultad y restaurar su argumento.*

Palabras claves: *Puzzle de Frege. Conocimiento a priori. Sentidos fregeanos. Frege. Glezakos.*

Abstract: *In this paper I offer a reconstruction of Stavroula Glezakos' claim that there is no Frege's puzzle. I identify the main theses doing the philosophical work in her argument and examine a possible difficulty: her argument may have the consequence of ruling out all a priori knowledge. I try to dispel the difficulty and restore her argument.*

Key words: *Frege's puzzle. A priori knowledge. Fregean senses. Frege. Glezakos.*

1. Introduction

Stavroula Glezakos (2009) offers an argument to show that Frege is not in the position to pose his famous puzzle. For him, it is puzzling to find that two true name-containing identity sentences of the form "a=a" and "a=b", where 'a' and 'b' refer to the same thing, express the same proposition but differ in epistemic value. In response, Glezakos confronts the Fregean with a dilemma: either there is a puzzle,

but only if we presuppose Frege's theory of senses, which renders his solution to the puzzle circular or we do not presuppose his theory, but then there is no puzzle to pose. Either way the Fregean finds trouble. In this paper I offer a reconstruction of her argument to deny the legitimacy of the puzzle. I try to identify the main theses doing the philosophical work in her argument and examine a possible difficulty to her general strategy. The crucial step in her argument consists of showing that name-containing identity sentences of the form "a=a" are not a priori —as Frege thinks. However, her reasons in favour of this claim may have the consequence of ruling out all a priori knowledge. I try to dispel the difficulty and restore her argument. The paper has three main sections. In the first one I give a standard presentation of the alleged puzzle. In the second section I present Glezakos' argument and my reconstruction of it. Finally, I present the difficulty just mentioned and a way to solve it.

2. The puzzle

a) Frege's presentation of the puzzle and Frege's solution

Let us start with an example to illustrate the way the puzzle supposedly arises. As a matter of fact, the writer Eric Arthur Blair adopted the pen name 'George Orwell'. I do know this, and accordingly take the following sentence to be true:

1. George Orwell is Eric Arthur Blair.

My nephew Jonathan, who started reading *Nineteen Eighty-Four*, does not know this. What

he does know is that George Orwell is the author of the book. Coincidently, he attended a lecture on the Spanish Civil War. At some point, the lecturer mentioned that a British guy called Eric Arthur Blair got shot in his throat, but fortunately he survived. Jonathan has no reason to identify George Orwell with this other guy Eric Arthur Blair. For him, the sentence 1 is not true —he does not recognise it as such. Now imagine that he is confronted with the following sentence:

2. George Orwell is George Orwell.

Most likely he will regard it as true. So the puzzle presents itself. Both names, 'George Orwell' and 'Eric Arthur Blair', refer to the same person. What the sentence 1 and 2 say —or the proposition they express— is that one and the same person is identical to himself. So, in a sense, they say or express the same thing. But then, how is it possible that, in spite of expressing the same thing, Jonathan assents to one but regards the other as false?

The puzzle, as Frege saw it, is that we can have two name-containing identity sentences with the form "a=b" (sentence 1) and "a=a" (sentence 2), which are both made true by the same object's self identity, but differ as to their epistemic profile. Sentences of the form "a = a" are (usually) knowable a priori and non-informative, whereas sentences of the form "a = b" are not knowable a priori and in many cases informative —in knowing them a person acquires new knowledge. The challenge is to explain how to accommodate the epistemic difference with the fact that both sentences express the same thing. Frege's own solution appeals to the notion of sense (*Sinn* in German), which is meant to be a part of the meaning of a proper name. Given that the senses of the names in questions differ, this explains why there is an epistemic difference between the sentences.

b) Core Thesis

Even if we do not buy Frege's semantic theory of proper names, which appeals to his notion of sense, we may still accept the basic intuition behind it:

> Core Thesis: Distinct proper names have distinct cognitive values.

Two names like 'Aristotle' and 'Plato' are distinct and, in principle, it is reasonable to expect that they have a different epistemic value. And this is because they play different roles in thought and reasoning: when a speaker uses one of them, the thought or ideas he is capable to make are different from the thoughts and ideas he could make if he uses the other one. Also, those names play different roles in reasoning: a speaker who uses one of those names is, in principle, in the position to make certain inferences, which she may not make if she were using the other name. Another way to mark the difference in epistemic value is by showing that an identity statement in which two different names flank the identity sign is always knowable a posteriori and usually informative, whereas an identity statement in which two tokens of the same name flank the identify sign is always knowable a priori. This is the way Glezakos cashes out the notion of difference in epistemic value —and most likely the one Frege himself had in mind.

What it is interesting to note is that the Core Thesis is supposed to hold even in the case where the names in question refer to the same thing. Take 'Hesperus' and 'Phosphorus'. Even if these names refer to the same planet, Venus, we can expect that they differ in epistemic value —along the lines described before. What about two occurrences of the same name, say, 'George Orwell' like in sentence 2? Do they have the same epistemic value? One may be tempted to say yes and accept something like the following thesis:

> Core Thesis*: two signs that are the same name have the same cognitive value.

This thesis is meant to capture the apparently innocent idea that, for example, both occurrences of the name 'George Orwell' in sentence 2 above play the same epistemic role. Glezakos' argument, as I see it, tries to show that the Core

Thesis* is mistaken. There is no reason to think that different occurrences of the same name should play the same epistemic role and, in consequence, name-containing identity sentences of the form "a = a" are knowable a priori. We will see the details later on.

c) Neutrality

Before we go any further, we need to note that Frege presents the puzzle as if it were something that arises quite independently from any theoretical view on what the reference of a name is.[1] This is not quite correct, for it is relatively clear that the puzzle arises if we adopt a Millean conception of the meaning of proper names, according to which, the meaning of a proper name is its referent. This fact is what gets in conflict with the fact that there is an epistemic difference between the identity sentences 1 and 2.

However, there is a related sense in which Frege should be able to present the puzzle in a neutral way. And we can capture the idea as follows:

> Neutrality: the puzzle is logically independent from Frege's theory of senses.

In other words, the puzzle is not implied by Frege's theory and does not imply it either. We need the first point in order to avoid circularity in Frege's solution of the puzzle. He thinks that the puzzle is solved by his theory of senses. But, if it turns out that the puzzle itself is a logical consequence of his theory of senses, it seems then that Frege's theory is itself the problem and the solution. We need the second point in order to make Frege's theory an interesting solution to the puzzle. If it turns out that Frege's theory is a logical consequence of the puzzle itself, certainly we have good reason to accept it, if the puzzle is genuine, but it would be a trivial consequence. And most decidedly Frege presents his theory as a novel and interesting theory of meaning meant to explain, among other things, the puzzle. So, we need to keep neutrality as a desideratum both for posing the puzzle and Frege's own solution.

3. Glezakos' objection

Glezakos wants to show that there is no a puzzle to be posed. She confronts Frege with a dilemma: either we accept that there is a puzzle but only if we presuppose his theory of senses, which in turn renders his solution circular or we do not presuppose his theory of sense, but then the supposed puzzle vanishes. Both horns of the dilemma bring undesirable consequences. The key part behind Glezakos' objection to Frege's way to pose the puzzle is to take seriously Kaplan's question: what makes a name-containing identity sentence have the logical form it has? (1990) And here is where the dilemma arises.

Take the first horn: if the form of identity sentences is determined by difference or sameness of sense, then there is a puzzle, but it is not quite general, for it arises only if we presuppose the notion of sense —which it is not good, for the puzzle was meant to motivate the necessity of postulating senses.

Take now the second horn: if we can specify the logical form of such sentences without appeal to Frege's notion of sense, then he cannot pose the puzzle because he cannot hold anymore that identity sentences of the form "a=a" are, in general, knowable a priori and uninformative. And if he cannot do that, there is no epistemic difference to explain. Let us see now in some detail her argument.

Frege's claim is that sentences of the form "a=a" and "a=b" have a distinct epistemic profile. This is what has been called Frege's data —which is supposed to be a neutral description of the circumstances from which the puzzle arises. With this idea in mind, we have the following way to capture Frege's entire endeavour:

1. True name-containing identity sentences (NCISs) of the form "a=a" and "a=b", where 'a' and 'b' are co-referential, express the same proposition.
2. Epistemic difference:
   2.1 NCISs of the form "a=a" are knowable a priori, trivially true and uninformative.

2.2 NCISs of the form "a=b" are only knowable a posteriori, not trivially true and informative.

2.3 Therefore, sentences of the form "a=a" and "a=b" have a different epistemic value.

3. There is a puzzle: how to explain the difference in epistemic value when there is no difference as to what content they have.

4. This prompts a solution to the puzzle. Frege offers his theory of sense: difference in sense explains difference in epistemic value.

Glezakos challenges the second premise by denying that there is an epistemic or cognitive difference between the sentences in question. And she does so by arguing that sentences of the form "a=a" are a posteriori. What is her argument?

Let us start by asking what determines that certain identity sentence has the form "a=a" as opposed to "a=b"? This is a crucial step in Glezakos' argument: she wants to connect the discussion about the difference in epistemic profile between identity sentences of the form "a=a" and "a=b" with a discussion about logical form determination of this kind of sentences. Her aim is to show that in accounting for this last issue, Frege presupposes his theory of senses and, therefore, the supposed cognitive difference between the sentences in question already presupposes such a theory. Let us see in the first place Frege's account of logical form determination and then we can see more clearly why his view is circular.

A way in which Frege can trace the distinction between sentences of the form "a=a" and "a=b" does not seem to answer the question. He does not deal directly with particular examples of identity sentences. Rather, he uses two schemas, "a=a" and "a=b" to represent the forms of NCISs. As mentioned, he takes sentences of the form "a=a" as knowable a priori and uninformative, and sentences of the form "a=b" as not knowable a priori and generally informative. However, this already presupposes that we can distinguish between the sentences and we only list their epistemic features. The list of epistemic properties

does not say anything about what determines that a sentence has certain logical form and not other.

It is clear that Frege cannot give the following answer if he wants to avoid circularity and respect the neutrality condition.

Logical form determination in terms of senses:

– A NCIS is of the form "a=a" only if the names flanking the identity sign have the same sense.
– A NCIS is of the form "a=b" only if the names flanking the identity sign have different senses.

For example, what determines that the sentence 2, "George Orwell is George Orwell", has the form "a=a" as opposed to "a=b"? He cannot say that the sentence has the form "a=a" because the first (occurrence of the) name 'George Orwell' has the same sense that the second (occurrence of the) name 'George Orwell'. He cannot say either that the sentence 1, "George Orwell is Eric Arthur Blair", has the form "a=b" because the names 'George Orwell' and 'Eric Arthur Blair' have different senses. He cannot say that because his notion of sense was meant to be the solution of the puzzle, that is, the puzzle itself shows that we need the notion of sense to solve it. So, he cannot presuppose the notion if he wants to motivate it as the best solution to the problem. The puzzle should be posed independently of his solution to it. So, Frege should be able to explain why a sentence has certain form rather than another without appealing to his notion of sense.

An alternative account appeals to sameness and distinctness of name along the following lines.

Logical form determination in terms of sameness and distinctness of name:

– A NCIS is of the form "a=a" only if the names flanking the identity sign are the same name.
– A NCIS is of the form "a=b" only if the names flanking the identity sign are distinct.

The sentence 1 above is of the form "a=a" because we have two occurrences of the same name. And the sentence 2 has the form "a=b"

because we have two different names occurring in the sentence. If we adopt these definitions, we could state the puzzle neutrally: how do we explain the epistemic difference between true identity sentences that contain a single name twice, say 'a', and those true identity sentences that contain two (distinct) names, 'a' and 'b' —where 'a' and 'b' refer to the same thing? At this point, Frege has his theory of senses as an answer.

Things are not that easy, however. Now we have a different but related question: how do we explain sameness or differences of names? How do we know when two expressions are the same name or not? Once again, it is clear that Frege cannot appeal to his notion of sense, for reasons we have already mentioned. He cannot adopt the following definitions.

Sameness and distinctness of name in terms of senses:

–   Two signs are the same name only if they have the same sense.
–   Two signs are distinct names only if they have distinct senses.

Although these definitions seem to explain effortlessly sameness and distincness of names, they are not available for Frege. The puzzle is meant to motivate his theory of senses, but if he adopts the definitions above, then in order to generate the puzzle he has to presuppose that theory. Once again, this strategy would violate the condition of neutrality. But, then how does he explain sameness and differences in names?

A possible alternative can be formulated in terms of having the same sign/referent combination:[2]

Sameness and distinctness of name in terms of sign/referent combinations:

–   Two signs are the same name only if they have the same sign/referent combination.
–   Two signs are distinct names only if they have distinct sign/referent combination.

We have three different situations. Take the first definition. It is a necessary condition —perhaps not sufficient— for two names to be the same—say the two occurrences of the name 'George Orwell' in sentence 2 —that they are orthographically the same and have the same referent. The second definition covers two cases: it is a necessary condition —perhaps not sufficient— for two names to be distinct —say the names 'George Orwell' and 'Eric Arthur Blair' in sentence 1 —that either they are orthographically the same but have different referent or they have the same referent but are orthographically distinct. This so far sketchy account of name individuation does not presuppose Frege's notion of sense. So, it may be the one he has in mind or at least is one he could use to pose the puzzle in a way that respects the neutrality condition.[3]

If these are the accounts of name individuation and sentence form in play, then, Glezakos argue, it seems that there is no puzzle to be posed. If the logical form of an identity sentence is determined by the sameness or difference in the names it contains, it seems that there is, in principle, no epistemic difference between identity sentences of the form "a=a" and "a=b". The notion of sameness and difference of names, captured by the definitions above, does not guarantee that a competent language user will be able to identify and re-identify names when they encounter them, even if they occur in a single identity sentence.[4] Suppose that I am confronted with the identity 2. Let us assume that I am a competent speaker of English, and that we accept the account of name individuation we have just sketched —two expressions are the same name only if they have the same sign/ referent combination and different only if they have a different combination. Do these assumptions guarantee that I will know a priori that it is true? Or in other words, do they guarantee that I will be able to recognise the two occurrences of 'George Orwell' as being the same name? It seems that they do not. Why should I be able to know it a priori?

The theses playing an important role in Glezakos' argument may be the following ones —'SN' and 'ESN' stand for 'sameness of name' and 'epistemic sameness of name' respectively. From the present account of name individuation we get these two theses —and let us focus on reference for the moment:

SN: two signs are the same name only if their referent is the same.

ESN: A speaker is able to recognise that two signs are the same name only if she is also able to recognise that they have the same referent.

The first principle is a factual claim that gives us a necessary condition for two names to be the same, whereas the second give us a necessary condition for us to recognise when two names are the same. Given that we are dealing with NCISs and proper names, we can adopt the following theses:

A. A NCIS is true only if the names it contains refer to the same thing.
B. A speaker can know that a NCIS is true only if she knows that the names occurring in it refer to the same thing.

Our sentences 1 and 2 are true only if the names 'George Orwell' and 'Eric Arthur Blair' refer to the same person. And we speakers can know those sentences are true only if we know that the names in question refer to the same person. Note that it is a necessary condition for the truth of NCISs and for our recognition of their truth that the names had the same referent and that we know the reference of the relevant proper names. So, the last step to close Glezakos' reasoning is the simple claim that we only know a posteriori the referents of the proper names we use. We need something like the following theses:

Empirical Thesis 1: a competent speaker of a language knows only a posteriori the meaning of her words.

Empirical Thesis 2: a competent speaker of a language knows only a posteriori the referent of the proper names she uses.

Empirical Thesis 3: a competent speaker of a language knows only a posteriori that NCISs of the form "a=a" are true.

In order to know whether a NCIS is true, we need to know that the referents of the names occurring in it. The only way to know that is by empirical means. So, NCIS of the form "a=a" are a posteriori. There is no epistemic difference between sentences of this form and sentences of the form "a=b". And if there is no epistemic difference, then there is no puzzle to pose. The envisaged situations in which NCISIs of the form "a=a" are knowable only a posteriori are not far-fetched. Consider a couple of cases:

a) Kripke's case (2011, 54): here we have a competent speaker, say Ana, who is confronted with the identity sentence "Paderewski is Paderewski", but nonetheless, given certain circumstances, she thinks it is false. On one occasion, she comes to know that certain Paderewski is a great pianist. Later on she comes across with the knowledge that certain Paderewski is a very successful politician. For some reasons, she believes that successful politicians make poor pianists. So, in consequence, she thinks that "Paderewski is Paderewski" is false, against Frege's view that she should know a priori that the sentence is true.[5]

b) In the previous case, the speaker regards a sentence of the form "a=a" as false,[6] but it is suffices to show that the speaker just does not know whether the sentence is true or false. Take a slightly different example. This time, our speaker David is aware that there is a student called 'Aristotle' at the University. At one occasion he passes by a small group of students and overhears that one of the young people gathered there, who is actually one of his students, says "Aristotle is Aristotle". David does not know what to do with this sentence. He certainly does not know whether what was expressed is true or false. If both names that flank the identity sign refer to the same person, then it is clear that the sentence is true. But, if the names refer to different persons (the Greek philosopher or the student), the sentence is false. The important thing is to note that the speaker is not in the position to know —let alone a priori— that the sentence is true. Of course, once he knows that the two occurrences of 'Aristotle' refer to the same person, then he can immediately

know that the sentence is true. But in order to get that knowledge he needs to do some empirical research in the very same way as he would do in order to know that the sentence "Hesperus is Phosphorus" is true. Again, this case calls into question Frege's assumption that sentences of the form "a=a" are knowable a priori.

Both cases share a feature: the identity sentences in question, even if they have the logical form "a=a", are not knowable a priori (in the first case because the speaker thinks that the sentence is false; and in the second case because the speaker simply does not know whether the sentence is true). If these examples are good — and I think they are so— then the way we come to know (at least in some cases) sentences of the form "a=a" is only a posteriori. There is nothing in the account of sameness and difference of names that makes a speaker to be in position to know when two names are the same or different and to know thereby that a sentence containing that name twice is true or false. There is then no epistemic difference between sentences of this form and sentence of the form "a=b". The puzzle was supposedly to arise once is recognised that there is such a difference. If there is no such a difference, there is no puzzle. This is basically Glezakos' argument against Frege. In the next section I will consider a possible difficulty with her view.

4. A Difficulty: there are no a priori truths

Glezakos argues that the supposed epistemic difference between identity sentence of the form "a=a" and "a=b" vanishes, for in both cases we need to know what the referent of the names in question is and whether the referent is the same. And we cannot know that a priori. One possible difficulty with her view is that her reasons to show that there is no such epistemic difference could be used to show, in general, that there are no a priori truths at all. A more general way to put her main point is that in order to know that

an identity sentence is true, we need to know the reference of the relevant names. And an even more general way to rephrase it is to say that in order to know that an identity sentence is true, we need to know what it means —if we accept that reference, even if not exhaust its meaning, is at least a part of it. And this seems to be just an instance of the claim that in order to know that a certain sentence whatever is true, we need to know its meaning. And one could expect that meaning learning is an empirical matter. If this is what Glezakos has in mind, then her view seems to imply the claim that there are no a priori truths at all.

Contrast our present case with the following couple of sentences, which are usually regarded as a priori:

3. 2+2=4.
4. If Kripke is a philosopher, then Kripke is a philosopher.

Once we come to know the meaning of the mathematical expressions in 3, we know it is true without the need of any further empirical research. Analogously, if we know the logical form of 4, assuming that both occurrences of the name 'Kripke' correspond to the same person, and realise that it guarantees it truth, we do not need the experience to know that it is true. We already have everything we need to know it. In this sense, both sentences are a priori.

However, if we apply to them a strategy analogous to the one Glezakos uses for identity sentences, it turns out that none of these sentences is a priori. If we take the principles we mentioned above, then we could say that we know those sentences only if we know their meanings and, more precisely, only if we know the meaning of the words involved. And, as Glezakos seems to accept, learning meanings is something we can do only a posteriori. So, all these sentences are a posteriori after all. I was not born knowing the meaning of the numerals or the meaning of the connective 'if …, then …' or who the referent of the name 'Kripke' is. I learnt their meanings a posteriori.[7]

The sentence 4 is a case in point. As we said, under the traditional view, 4 is knowable a priori

in the sense that once we know the meaning of the logical connective 'if …, then …' we know that not matter how we substitute the non-logical expressions in it, the resulting sentence will be true. But if we deploy Glezakos' strategy, it turns out that 4 is, against what we could have thought, a posteriori. In order to know that it is true, we need to know that the first occurrence of 'Kripke' refers to the same person that the second occurrence of 'Kripke' refers to. If we know that and we understand the conditional, we know the sentence is true. But, again, to know what the reference of the names is and whether they have the same referent is something we can only know a posteriori. So, the sentence is a posteriori.

However, this may be unfair for those who defend the traditional notion of the a priori. Arguing in this way seems to confuse two entirely different issues: the way we actually came to know that certain assertion is true and the way we justify the truth of that assertion.[8] Take the case of the sentence 3 above. As far as I know, I was not born knowing mathematics, and I was not born knowing the meaning of certain words and signs. So, in order to know even the most basic arithmetic the experience was needed. On one hand, I learnt English empirically. On the other hand, the way I learnt basic arithmetic was empirically —maybe counting apples or something. Or take the example of geometry. For sure I learnt to calculate perimeters and areas of geometrical figures by means of drawing some particular figures on a blackboard or on my notebook. This suggests that a good part of my mathematical knowledge is something I learnt, as a matter of fact, by empirical means. Does this mean all this knowledge I do have is a posteriori? Granted, I did learn geometry by drawing figures on a blackboard, but my geometrical knowledge is still a priori in the sense that it can be justified without appeal to the experience —by means of certain axiomatic system perhaps.

The notion in play cannot be one according to which a priori knowledge is absolutely independent from the experience. This seems to be an unduly strong condition.[9] We need a weaker notion of a priori knowledge. A way to understand this weaker position requires a distinction between a sentence and the proposition it expresses. The

English sentence "cats are mammal" and the Spanish sentence "los gatos son mamíferos" express the same proposition, namely, that cats are mammal. On a usual view, propositions, and not sentences, are the proper objects of knowledge.[10] When we know something, what we know are propositions.[11] With this in mind, the weaker view says that a priori knowledge is independent from all experience once we know the meaning of our words and thereby grasp the concepts involved in the proposition expressed by some sentence. So, if we go back to our example, even if I learnt by empirical means the meaning of the sentence 3, "2+2=4", questions about knowledge and apriority start once we know its meaning and ask whether the proposition already expressed by the sentence can be justified without appeal to the experience. Once we know what the sentence says, the proposition expressed, we asked of that proposition whether it can be justified a priori or not. In this case, sentence 3 can be a priori justified, and this is so even if we learnt its meaning empirically.[12]

How does this bear on Glezakos' argument? Take her examples in question. She thinks that sentences of the form "a=a" are a posteriori. Her reason in favour of this view seems to depend on the strong understanding of a priori knowledge we have mentioned: given that we know a posteriori the meaning of names —or what their referent is— name-containing identity sentences —and presumably any name-containing sentences— are a posteriori. But we have noted that on the traditional notion of a priori knowledge, even if we need some empirical means to determine the meaning of a sentence —and in this case, we need empirical means to determine the referent of proper names— it does not mean that the sentence should count as a posteriori, for if the proposition it expresses is one we can know a priori, the sentence is a priori in a derived sense. If we have not ruled out the a priority of sentences of the form "a = a", we have not rule out the difference in epistemic profile between sentences of this form and sentences of the form "a=b". And if this is the case, we have not ruled out the puzzle.

In a word, the complaint is that Glezakos' argument would show that there are no a priori

truths. This is not by itself objectionable —for nothing force us to keep the notion of a priori knowledge not matter what may come. The problem is that she arrives to this conclusion by means of conflating the way we actually came to know that a sentence is true and the kind of justification we have in favour of the truth of the proposition expressed by that sentence. Just because it is an empirical matter how we manage to learn meanings —including the referents of proper names— does not imply that every sentence is a posteriori. Is Glezakos guilty of this mistake?

A first reaction to this objection can be this. A similar reasoning would show that the sentence 1, "George Orwell is Eric Arthur Blair", is also a priori, for if I know who the referent of the names is, I would immediately know that the sentence is true, for I immediately recognise that the proposition expressed —that one person is identical to himself— is true. And although this would show that there is no epistemic difference between sentences of the form "a=a" and "a=b", it is a rather unwanted result that this sentence turns out to be a priori.

What we have here is an interesting phenomenon. On one hand, we have the case in which knowing the meaning of certain sentence does not guarantee knowing that it is true. The following sentence is of this kind:

5. Combustion needs oxygen

Even if I know the meaning of the nouns 'Combustion' and 'Oxygen' and the verb 'needs', I am not in the position to know, without further empirical research, whether the sentence is true or false. In contrast, we have cases in which by knowing the meaning of a sentence, and thereby knowing what proposition expresses, I immediately know that the sentence is true, for I immediately recognise that the proposition expressed is true. Name-containing identity sentences and sentences like 4 are of this kind. On this perspective, both identity sentences of the form "a=a" and "a=b", where 'a' and 'b' are co-referential, are such that if we know the reference of the proper names 'a' and 'b', and thereby we know what proposition they express,

we know that the sentence is true because we know that the proposition they express is true. In this sense, to say that true identity sentences of the form "a=a" are a priori and that true identity sentences of the form "a=b" are not seems to obfuscate the issue. What is knowable a priori is the proposition, the same that both sentences express. It looks to me that although we should respect Frege's data —the difference in epistemic profile— I think we should not frame the issue in terms of apriority or aposteriority. The puzzle arises at the level of sentences, and if we want to apply the distinction at this level, it is not surprising that every sentence be a posteriori. Of course this does not undermine Frege's data. There could still be a difference, but it should not be cashed out in terms of the a priori/a posteriori divide.

What we need is a better understanding of the notion of a priori knowledge in the present debate. We have so far some clues:

a) Apriority and aposteriority are relational properties between epistemic agents and propositions. Sentences can be known a priori or a posteriori in a derived way, but I do not feel confident in saying something like this:

– A sentence is known/knowable a priori only if the proposition it expresses is knowable a priori.

– A sentence is knowable a posteriori only if the proposition it expresses can be known only a posteriori.

So, I will stick to the classic understanding.

b) In general, questions about knowledge start once we have settled semantic questions about the meaning of words and sentences in which those words occur. In other words, if we do not know what a sentence says, what proposition expresses, we cannot even start questions about apriority or aposteriority. We need a proposition.

c) In particular, this is the case for name-containing identity sentences. We need to find what the proposition they express is, and then ask of that proposition whether it is a priori or not.

d) The fact that we know only a posteriori the meaning or the referent of proper

names —leaving aside cases of linguistic stipulation— does not rule out the possibility of a priori truths.

e) In the particular case of proper names,[13] there are at least four things we can only know a posteriori about them: first, that they have a referent and are not empty; second, what their referent is; third, whether two different names have the same referent; and four, whether different occurrences of the very same name refer to the same object. However, the fact that we can only know a posteriori these things, does not rule out the possibility of a priori truths expressed by sentences that contain proper names.

These considerations strongly suggest that the notion of a priori should not be the one in play in the debate. The notion of epistemic value has been so far understood in terms of the a priori/a posterior divide. But perhaps we are dealing with a different property, one that can be properly attributed to sentences —whereas being a priori and a posteriori are relational properties attributed to propositions. But what could this other property be?

The purported puzzle is how sentences that express the very same proposition may have different epistemic properties. The key here is that even if we accept that the a priori/a posteriori couple applies only to propositions, we can still hold that sentences may differ in their epistemic profile. And this difference is one that Frege could still exploit to generate the puzzle. In this sense, maybe being informative or non-informative, trivially true or not can be better suited as properties for sentences. The epistemic difference between these sentences does not have to be cashed out in terms of apriority or aposteriority.

Is anything to say to restore her main line of argument? As we have already suggested, we can still insists on epistemic differences between kinds of sentences. We have already mentioned that there seems to be an important difference between sentences like 5 and true name-containing identity sentences like 1 and 2. In the former case, knowing the meaning of 5 does not guarantee that we can know that it is

true. In the later case, if we do know what they mean, we know that they are true, because we immediately know that the proposition expressed is true.[14] We have then a way to instantiate an epistemic difference between name-containing identity sentences and sentences like 5. However, it does not instantiate the kind of distinction Frege wants between identity sentences of the form "a=a" and "a=b". Under the present approach to the notion of a priori knowledge, there is no distinction between this kind of sentences: if they are true, they express the same proposition, which can be immediately recognised as true.

This open the door to a response to the main complaint raised before: either we keep the discussion about epistemic difference at the level of sentences, but then Glezakos is right in pointing out that there is no such a difference between true identity sentences of form "a=a" and "a=b", or we move the discussion to the level of the propositions the sentences in question express, but then there is no epistemic difference between sentences of these forms because they express the same proposition, one that we can know a priori. In either case, there is then no epistemic difference between the sentences in question. This is sufficient to restate Glezakos' main argument to show that there is no puzzle.

5. Conclusion

In this paper I have tried to individuate some principles that play the central role in Glezakos' argument to show that there is no Frege's puzzle. Her strategy consists in moving the debate about differences in epistemic value to the debate about logical form determination of name-containing identity sentences and name individuation. In doing so, she is able to run the dilemma: if in our explanation of these issues we appeal to Frege's theory of senses, we do have a puzzle, but only at the cost of circularity. If we do not presuppose his theory, then there is no puzzle. Sentence of the form "a=a" are a posteriori, and we come to know they are true in the very same way we come to know that sentence of the form "a=b" are true. I presented a way to understand her argument

that has the consequence of ruling out all a priori knowledge. The moral of this discussion seems to be that appeal to the a priori/a posteriori divide seems to be ill suited in the present context. This opens two possible paths. We can keep the entire discussion at the level of sentences, but then Glezakos is right in saying that there does not seem to be any difference between identity sentences of the form "a=a" and "a=b". Or we can keep the discussion at the level of propositions, but then again, there does not seem to be any difference between this kind of sentences either. Sentences 1 and 2 express the same proposition, namely, that one person is identical to himself. This is a proposition we can know a priori. In either case, we can still argue that there is no epistemic difference. And if there is no difference, there is no puzzle.[15]

Notes

1. Here we need to be careful to distinguish two different questions. One is a theoretical view on what a name is, and the other is what its meaning is and how its reference gets fixed. The point of neutrality I want to stress here has to do with the second question.

2. At first glance, this does not seem to be a big improvement on the previous accounts. If we say that we have the same name only if we have the same sign and the same referent, we need to explain what is for two signs to be the same. But this is just what we are asking when we ask when two signs are the same name. However, we can say that the question about when two signs are the same is more basic than the question about when two names are the same. We can appeal to orthographic similarity —similar graphic and audio properties. And more importantly, we can explain the difference without appealing to senses.

3. Is this a view we can attribute to Frege? Glezakos refers to his "On Sense and Reference", the footnote on the name 'Aristotle' (1960, 56). I can assign to the proper name 'Aristotle' the sense of being Plato's student. Someone else can assign being Alexander the Great's teacher. We can tolerate these variations in sense, as Frege says, as far as the referent, Aristotle, remain the same. From this passage, Glezakos extracts the following consequences:

a) The passage gives us a characterisation of a proper name as a particular sign for a particular referent.

b) It affirms that Frege's theory accommodates assignment of different senses to a single name.
Now, how is it that from this follows the view on name individuation we described above? She seems to have something like this in mind:

c) Given that a proper name is understood as a particular sign meant to be used as a particular sign for a particular object, two distinct names should be distinct signs and have distinct referents. Surely we need to say more about Frege's views on name individuation, but certainly the present proposal is an open option for him.

4. It is also clear that linguistic competence does not guarantee that one can recognise that certain sign in the language is a proper name. I am a relatively competent speaker of English, but my competence in the language does not guarantee that if I come across with the word 'Maile', I recognise it as a proper name. Perhaps we need a better understanding of linguistic competence, but for our purposes we can accept two things: first, linguistic competence does not guarantee that one can recognise a sign as a proper name and, second, that one can identify a name as being the same as other.

5. We could think that the speaker's belief that no successful politician can be a great pianist is rather an injudicious one. At best, when hearing that certain Paderewski is a great pianist, and then, when hearing that a certain Paderewski is a politician, she should hold her judgement: "is that Paderewski, the pianist, the same as this Paderewski, the politician? I don't know, better not to judge either way". However, this does not affect the point I want to emphasise here: a competent speaker could be unable to recognise whether certain name she encounters is the same as some other she encountered before, and in consequence, she is not in the position to know —let alone a priori— that an identity sentence featuring those names is true (or false for that matter). And more generally, linguistic competence does not seem to include the capacity to recognise when we are dealing with the same name, even if they are orthographically the same sign. This is sufficient to cast doubt on Frege's

assumption that sentences of the form "a=a" are always knowable a priori.

6. This is so even if what the sentence expresses is necessarily true.

7. Here I overlook the case of linguistic stipulations of meaning, which could make room for sentences knowable a priori. Take Kripke's cases of a priori but contingent truths (1972, 54). I can stipulate that I will call whoever is the first child born in 2015 'Jesús'. Now, I can know a priori that the sentence "if Jesús exists, then she/he is the first child born in 2015" is true. All I need is the stipulation, no further empirical enquiry is needed. Of course, these cases are rather scarce. A vast part of language does not seem to be the result of this kind of stipulations.

8. The distinction may be traced back to Kant's views on the a priori: "But although all our cognition commences with experience, yet it does not on that account all arise from experience" (Kant, 1998, 136). The idea here is that all our knowledge, as a matter of fact, starts with the experience. But that does not imply that all our knowledge needs to be justified by appealing to the experience.

9. Another controversial consequence of this stronger notion is that it would make a priori knowledge depend only on innate ideas —and we do not know whether there is such a thing. I will not press this point, as I think we have so far some other reasons to think the stronger version must be put aside.

10. If sentences were what we know when we know, it would be easy to show that there is no a priori knowledge. In order to know a sentence, we need to know its meaning. And knowing its meaning is an empirical matter. So, knowing sentences is a posteriori —with the exception perhaps of the kind of linguistic stipulations mentioned in the footnote 7.

11. Here I put aside the case of knowing how to do something in the sense of having the skills to do something like riding a bike or driving a car. It is not clear whether in these cases we are dealing with propositional knowledge, and this is what we are interested in.

12. It is relatively clear that knowing the meaning of certain sentence is not sufficient to know that the propositions it expresses is true. I can perfectly understand the sentence "there are American bullfrogs in Panama", but by just knowing its meaning I am not in the position to know whether the proposition expressed is true. I need to do something else to know it. This is so not only because we are dealing with an empirical truth. Take Goldbach's conjecture. It is not an empirical truth. However, I can perfectly understand the sentence expressing the conjecture, and not being able to know whether is true or false.

13. One could think that the a posteriori character of these four epistemic situations can be sufficient to rule out the possibility of a priori truths that contain proper names. This would be the case if we adopted the strong reading of a priori knowledge. But once we adopt the weaker reading, the aposteriority of semantic knowledge does not rule out the possibility of a priori knowledge.

14. This may sound as if I want to trace a distinction between truths in virtue of meaning and more empirical truths like 5. Paul Boghossian (Boghossian, 1996) distinguishes two notions of truth in virtue of meanings: the metaphysical and the epistemic. He regards the former as hopeless, as there is no way to make sense of the idea that the truth value of a sentence could only depend on its meaning. Like him, it is one I do not want to endorse in the present context. The latter, he thinks, is not open to the difficulties that the metaphysical version has, and is the one he defends. He does think that the epistemic version—an analytic truth is knowable a priori— can be rescued and put to do some interesting philosophical work. Although I sympathise with his view, for the purposes of this paper, I will not have the time to deal with these issues. All that matters is the claim that if we know the meaning of true name-containing identity sentences, we know that they express the proposition that certain thing is identical to itself. And this is something we can know a priori. This is not the case for sentences like 5. I am not saying that true identity sentences are true only in virtue of their meaning.

15. This paper was written as a postdoctoral fellow at Instituto de Investigaciones Filosóficas, Universidad Nacional Autónoma de México (UNAM), from September 2013 to August 2014. I want to express my gratitude for the support given.

References

Frege, G. (1960). On Sense and Reference. In P. Geach & M. Black (Eds.), *Translations from the*

Philosophical Writings of Gottlob Frege, 56-78. Oxford: Basil Blackwell.

Glezakos, S. (2009). Can Frege Pose Frege's Puzzle. In J. Almog & P. Leonardi (Eds.), *The Philosophy of David Kaplan*, 2002-207. Oxford: Oxford University Press.

Kant, I. (1998). *Critique of Pure Reason*. Cambridge: Cambridge University Press.

Kaplan, D. (1990). Words. *Proceedings of the Aristotelian Society*, *Supplementary Volumes*, 64, 93-119.

Kripke, S. (1972). *Naming and Necessity*. Oxford: Blackwell Publishing.

———. (2011). A Puzzle about Belief. In S. Kripke, *Philosophical Troubles*. *Collected Papers*, *Volume I*, 125-161. Oxford: Oxford University Press.

(*) **Víctor Cantero-Flores** is a Postdoctoral Fellow at Instituto de Investigaciones Filosóficas, Universidad Nacional Autónoma de México. Doctor in Philosophy by the University of Sheffield, South Yorkshire, UK. Recent publication: Cantero-Flores, V. (2014). Necesidad, mundos posibles y bidimensionalismo semántico. L. Valdivia (comp.), *La identidad: su semántica y su metafísica*. *Una aproximación desde la filosofía analítica*. México: UNAM-DGAPA-FFyL, 221-252.