

# *Frege's Puzzle and Semantic Relationism*

**Surajit Barua**

**Journal of Indian Council of  
Philosophical Research**

ISSN 0970-7794

J. Indian Counc. Philos. Res.  
DOI 10.1007/s40961-018-0164-8



**Your article is protected by copyright and all rights are held exclusively by Indian Council of Philosophical Research. This e-offprint is for personal use only and shall not be self-archived in electronic repositories. If you wish to self-archive your article, please use the accepted manuscript version for posting on your own website. You may further deposit the accepted manuscript version in any repository, provided it is only made publicly available 12 months after official publication or later and provided acknowledgement is given to the original source of publication and a link is inserted to the published article on Springer's website. The link must be accompanied by the following text: "The final publication is available at [link.springer.com](http://link.springer.com)".**



## Frege's Puzzle and Semantic Relationism

Surajit Barua<sup>1</sup> 

Received: 1 March 2018 / Revised: 26 September 2018 / Accepted: 11 October 2018  
© Indian Council of Philosophical Research 2018

### Abstract

Departing from the dominant theories of Frege, Russell and Mill, Kit Fine has sketched a novel solution to Frege's puzzle in his book *Semantic Relationism*. In this article, I briefly discuss the puzzle in its various forms and the attempted solutions of Frege and Russell. I then explicate the essential features of the new theory and critically appraise the mechanism suggested by Fine to solve the puzzle. I show that Semantic Relationism fails to address the concerns raised in the puzzle.

**Keywords** Semantic relationism · Frege's puzzle · Coordination · Coreference

This article aims to critically assess a new proposed solution to Frege's puzzle. The new proposal is due to Kit Fine, known as Semantic Relationism.

The paper is divided into five sections. In the first and second sections, I introduce Frege's puzzle about proper names and briefly survey a few prominent theories of language and how they attempted to solve it. From the third section onwards, I discuss Kit Fine's theory of semantic relationism, as applied to proper names. In the fourth section, I argue that the theory fails to justify its claims with regard to Frege's puzzle. The final section concludes that even a later revision of the theory is not adequate to solving the puzzle in purely semantic terms.

### Frege's Puzzle

Frege believed that identity statements all have the form " $a = b$ ," where " $a$ " and " $b$ " are either names or descriptions that *denote* individuals. So, the statement is true if and only if the individual in the left-hand side just is the individual on the right-hand side of the equation. But he noticed that this account of truth can't be all there is to the meaning of identity statements. The statement " $a = a$ " has a

---

✉ Surajit Barua  
surajitphilosophy@gmail.com

<sup>1</sup> Seth Anandram Jaipuria College, Kolkata, India

cognitive significance (or meaning) that must be different from the cognitive significance of " $a = b$ ." This issue can be restated in detail with an example.

The following statements are jointly inconsistent, but individually plausibly true.

- 1a. "Hesperus = Hesperus" and "Hesperus = Phosphorus" have the same meaning.
- 1b. "Hesperus = Hesperus" and "Hesperus = Phosphorus" have the same cognitive value.
- 1c. "Hesperus = Hesperus" and "Hesperus = Phosphorus" do not have the same cognitive value.

where (a) follows from the set of assumptions

- A1. *Referential Link* If the names "Hesperus" and "Phosphorus" are semantically different, they are referentially different.
- A2. *Referential Identity* The names "Hesperus" and "Phosphorus" are not referentially different.
- B. The meaning of a sentence is given by the meaning of its parts. (Compositionality)

(b) follows from (a) and the assumption

- C. Sameness of meaning implies sameness of cognitive value.

But it is necessary to qualify the above assumptions. Note that two sentences are *cognitively different* if they can convey different information to someone who *understands* both sentences; "Understanding" involves linguistic competence as well as apprehension of what is actually meant by the speaker in an utterance, irrespective of its literal meaning. The information conveyed by a sentence may have contribution from its pragmatic content/context also. Thus, in an actual conversation, the cognitive value of a sentence includes both its semantic and pragmatic contents. That is why it is possible to question assumption C and propose a pragmatic solution to the puzzle rather than rely entirely on semantics. However, most philosophers including Frege, Russell and Fine believe semantics is at play here. A good theory of meaning, it is hoped, should succeed in solving it. So, in what follows, I assume that C is true. Attempts to solve the puzzle involve rejecting one or more of the above statements to achieve consistency.

For each sentence of the identity puzzle above, it is possible to construct an analogous sentence involving belief. Then, it will be seen that, just as in the original puzzle, the sentences of the set are jointly inconsistent, but individually plausibly true. I will also discuss Frege's and Russell's solutions to these puzzles and show that their solutions in one version mirror that of the other.

Frege's Puzzle about belief reports:

- 2a. "Hesperus = Hesperus" and "Hesperus = Phosphorus" have the same meaning.

- 2b. “X believes that Hesperus is Hesperus” and “X believes that Hesperus is Phosphorus” have the same truth value.
- 2c. “X believes that Hesperus is Hesperus” and “X believes that Hesperus is Phosphorus” do not have the same truth value.

where (2a) follows from the assumptions A and B and (2b) follows from (2a), the assumption C and

D. Sameness of cognitive value implies sameness of belief.

Assumption D can also be questioned. Advocates of holism such as Quine will straightway reject it. But note that Frege’s puzzle about propositional attitudes cannot even be framed if one accepts the Quinean position. So if we accept Frege’s view that there is indeed such a puzzle regarding propositional attitudes, we have to bracket such concerns. Next note that by sameness of belief, I only mean that in all possible worlds in which the two statements have the same cognitive value, their truth value remains the same when considered within the scope of the belief operator of some agent X. With such qualifications in place and from the definition of “cognitive difference,” assumption D can be accepted.

Now it is generally agreed by philosophers that the puzzle is not about identity.<sup>1</sup> Thus, it can also be rewritten as:

- 3a. “Hesperus is a planet” and “Phosphorus is a planet” have the same meaning.
- 3b. “X believes that Hesperus is a planet” and “X believes that Phosphorus is a planet” have the same truth value.
- 3c. “X believes that Hesperus is a planet” and “X believes that Phosphorus is a planet” do not have the same truth value.

where (3a) follows from the assumptions A and B and (3b) follows from (3a) and the assumptions C and D.

As in the identity puzzle, here too each statement of both sets (2) and (3) is individually plausibly true, but jointly inconsistent.

## Mill, Frege and Russell on the Puzzle

A good semantic theory should succeed in solving the puzzle in all its versions. Mill’s theory of proper names holds that the semantic contribution of a name is only the object it denotes. Using a name in thinking of or referring to an object is not a matter of representing it as having certain properties but, as Russell said, “merely to

<sup>1</sup> See, for example, Salmon (1992) and McKay and Nelson (2014). Very recently, Unnsteinsson (2018) has claimed that the puzzle *is* about identity. But in this article, I will ignore this outlier view and go with the standard view.

indicate what we are speaking about.” In other words, proper names have only denotation. They are devoid of any connotation.

The Millian can respond to the identity version of the puzzle in two ways: (1) he can try to explain how substitution of coreferential names in the identity expression can genuinely change its cognitive value, or (2) he can deny that there is any genuine difference in cognitive value among expressions due to such substitutions and try to explain away intuitions to the contrary. Similarly, in order to solve the two latter versions of the puzzle involving attitude ascriptions: (1) he can try to explain how substitution of coreferential names in attitude ascriptions can genuinely change truth value, even though the meaning of a name is its referent, or (2) he can accept that coreferential names are always substitutable *salva veritate* in attitude ascriptions. Thus, approach (1), advocated by Jerry Fodor, consists in accepting sentence (a) and (c) of the puzzle, but rejecting (b). Option (2) on the other hand, espoused by Scott Soames, involves accepting (a) and (b), but rejecting (c). Since both Millian solutions accept option (a) of the puzzle, it is difficult for its adherents to satisfactorily explain the meaningfulness of sentences containing non-referring names such as “Unicorn” and the intelligibility of negative existential sentences such as “Apollo does not exist.”

Gottlob Frege offered two different solutions to the puzzle. The *Begriffsschrift* solution is that the identity in “ $a=b$ ” does not hold between the objects designated by “ $a$ ” and “ $b$ .” Rather “ $a=b$ ” expresses a relation between the expressions themselves (“What we apparently want to state by  $a=b$  is that the signs or names “ $a$ ” and “ $b$ ” designate [*bedeuten*] the same thing, so that those signs themselves would be under discussion; a relation between them would be asserted” (Frege 1948, p. 209). Thus, he rejects assumption (A1). Consequently, he rejects (a) and (b) and accepts only (c). It is clear that the early Frege regarded the puzzle as one about identity. Thus, the *Begriffsschrift* solution is not directly applicable to the other versions of the puzzle.

Frege in *Über Sinn und Bedeutung* offered a different solution which is applicable to both the identity and attitude ascription versions. His later solution is again, to reject the first statement (a) and the second (b) and embrace only the third (c). However, now Frege explains his choice of the alternatives by invoking the notion of “sense.” A “sense” of a term is an objective *mode of presentation* and a way of *thinking* of the object denoted by it and it exists independently of the speaker’s consciousness. The sense of a proper name is often a denoting phrase which presents/picks out the object that is the referent of the name. In other words, the referent uniquely satisfies the description of the denoting phrase. Coreferential terms such as “Hesperus” and “Phosphorus” have different modes of presentation—i.e., their senses are different. Coupled with the principle of Compositionality (C), this means that a substitution of one term for the other in a sentence yields a different proposition even though its truth value is preserved in such substitutions. That explains why “Hesperus = Hesperus” can be a priori and uninformative, but “Hesperus = Phosphorus” is a posteriori and informative.

To explain his solution to the later versions [i.e., (2) and (3)] of the puzzle, Frege pares his notion of sense with the following principle: “In reported speech one talks about the sense, e.g. of another person’s remarks. It is quite clear that

in this way of speaking words do not have their customary reference, but designate what is usually their sense" (Frege 1948, 211). Ordinary proper names and definite descriptions, when they are constituents of sentences embedded within the scope of attitude verbs, do not designate their customary referents. In other words, the object Venus itself is not a constituent of the propositions in sentences (b) and (c) of (2) and (3). The propositional attitude of X is not about Venus having some property F, but about the thought "the so-and-so" has the property F" where "the so-and-so" is, loosely speaking, the sense—a definite description that differs for "Hesperus" and "Phosphorus." This explains why the truth value of the two belief reports can be different even though the terms are coreferential.

Russell indirectly refers to the puzzle in *On Denoting* (1905, p. 485) in these remarks: "If *a* is identical with *b*, whatever is true of the one is true of the other, and either may be substituted for the other in any proposition without altering the truth or falsehood of that proposition. Now George IV wished to know whether Scott was the author of *Waverley*; and in fact Scott was the author of *Waverley*. Hence we may substitute *Scott* for *the author of "Waverley"*, and thereby prove that George IV wished to know whether Scott was Scott. Yet an interest in the law of identity can hardly be attributed to the first gentleman of Europe." He offers a solution by relying on the following theses:

- (R1) We can have knowledge of entities by either of the two means: knowledge by acquaintance and knowledge by description. The former is direct, indubitable, and it does not come in degrees. The latter is inferential/'satisfactional' and its truth can be doubted.
- (R2) The ordinary particular things which we know are actually known by description. Even in cases where we think we perceive the individual and are directly acquainted with her, what we are actually presented to our senses are the sense data of that individual. We cannot apprehend the actual individual concerned. We come to know of the individual by inference—whoever satisfies such-and-such sense data. Thus, the semantic content of an ordinary proper name is not direct reference, but some definite description which requires unique satisfaction.
- (R3) Acquaintance is always subjective. Hence, the descriptions (including descriptions of sense data) one associates with the object named are also subjective.
- (R4) In every proposition that we can apprehend, all the constituents are entities with which we have immediate acquaintance. Thus, we cannot know or assert any proposition in which a thing/individual itself is a constituent. Every apprehended proposition whose surface grammar is that of a singular proposition whose subject term is an ordinary proper name is actually of the form "the so-and-so is F."
- (R5) The denoting phrase "the so-and-so" does not by itself have a meaning. It is not itself a subordinate complex in a proposition in which it occurs. The true subject of our judgment is a propositional function, i.e., a complex containing an undetermined constituent, and becoming a proposition as soon as this constituent is determined.

Thus, identity in “Hesperus=Phosphorus” is that of a variable, i.e., of an indefinite subject, not that of the planet Venus itself. Since the descriptions associated with Hesperus and Phosphorus are different, the fact that two different propositional functions are satisfied by the same variable is informative, *aposteriori*.

The above discussion makes it clear that Russell denies assumption (A). Consequently, he denies (a) and (b) and accepts (c).

The “that” clauses in belief ascriptions in the later versions of the puzzle [i.e., (2) and (3)] refer to the propositions expressed by the embedded sentences. The two constituent belief ascriptions in sentences (b) and (c) of versions (2) and (3) attribute to X belief in different propositions and so can differ in truth value. Therefore, according to Russell, 2(c) and 3(c) are to be accepted.

The difference in the approach of Frege and Russell to the puzzle becomes clearer when we consider their treatment of definite descriptions. A definite description is, for Frege, an *Eigenname*—a proper name—and the truth value of a sentence containing a definite description are determined in much the same way as that of any sentence containing a name. For Russell by contrast, a definite description generates an incomplete symbol. Unlike a genuine proper name, it does not have a standalone meaning. According to Russell, a name in the strict sense of the term can never be a description and a description in the strict sense of the term can never be a name.

Despite his allegiance to Millianism about names, Russell may be treated as a descriptivist about name because his universe of genuine proper names is restricted to logical proper names—demonstrative pronouns.

There are three well-known arguments against description and sense theories of names (the latter on the interpretation of sense as intension). Kripke’s modal argument contends that names and definite descriptions differ in their “modal profiles.” Names are rigid designators, which is to say that their intension is constant across metaphysically possible worlds (where defined). Definite descriptions like “the teacher of Alexander,” on the other hand, have non-constant intensions. Kripke’s epistemic argument is that no definite description *D* has the same semantic value as the name “Aristotle” (say), because otherwise sentences such as “Morning Star might have turned out not to have been the Evening Star” would be analytic and so knowable a priori. Kripke also offers a semantic argument against Descriptivism. Consider a name competent users in a community can use and understand, like “Rabindranath Tagore” or “Jagadish Chandra Bose.” Most people within the Bengali community don’t know of any uniquely identifying description of people like them. But in these cases we do not say that the name has no reference, just because the descriptions you associate with the name do not pick anyone out uniquely. Due to the effects of these powerful arguments, the Descriptive theory is not unanimously accepted by philosophers.

In the next section, we will see how Fine relies on extrinsic, but relational semantics to explain the puzzle.



## Semantic Relationism

Fine proposes an alternate view, Semantic Relationism. The central ingenious insight of this view is that some semantic relationships between two expressions in a language (as well as their underlying thoughts and the corresponding propositions which they represent), such as identity/synonymy, cannot be reduced to intrinsic semantic features of the expressions between which they hold. The principal form of semantic relation, which Fine chooses for a detailed treatment, is Coordination. Fine (2007) presents his theory in its various guises to solve not just Frege's puzzle, but also the antinomy among variables and Kripke's puzzle. However, the scope of this article is restricted to discussion of Coordination within language and the application of Semantic Relationism to Frege's puzzle.

Recall from the preceding section that a solution to the puzzle involves rejecting one or more theses/assumptions which are individually plausibly true, but jointly inconsistent. Fine's proposal is that we reject the assumption of Compositionality (B): The meaning of a sentence is given by the meaning of its parts. He says, "we might then affirm both that there is no semantic difference between coreferential names, thereby securing the benefits of the referentialist position, and that there is a semantic (or cognitive) difference between the identity-sentences, thereby securing the benefits of the Fregean position. A more acceptable form of referentialism might thereby be embraced, not subject to the usual Fregean objections." (ibid., p. 37) But how do we reject the principle of Compositionality which is so intuitively plausible? Fine notes that it is possible to consistently say that the identity sentences "Cicero = Cicero" and "Cicero = Tully" are semantically different and yet the names "Cicero" and "Tully" are not. The strategy is to shift the burden of maintaining semantic difference between such sentences from their constituent individual names to pairs of such coreferential names. The semantic difference between the names cannot be intrinsic to themselves if the Millian view of names and its benefits are to be preserved. According to Fine, even though the names are semantically identical when considered separately, there is semantic difference between the *pair* of names "Cicero," "Cicero" and "Cicero," "Tully." This strategy enables Fine to retain the benefits of Compositionality without retaining intrinsicity. Thus, Fine rejects assumption (B) without rejecting its essence.

But what is the mechanism that creates relational difference between coreferential names that cannot be reduced to their intrinsic semantic difference? The Relationist's answer is Coordination—in the first pair (but not the second), the names are coordinated.

Fine elaborates on the idea:

- (1) The idea of representing objects *as* the same is to be distinguished from the idea of representing the objects *being* the same. The sentences "Cicero = Tully" and "Cicero = Cicero" both represent the objects *as being* the same, but only the second represents them *as* the same.
- (2) The above phenomenon is a semantic feature. That is, the distinction between representing objects *as* the same and *being* the same can be explained adequately

by invoking only the semantic features of the expressions in which they occur. In other words, pragmatic considerations and contextual features of the discourse are not responsible for this difference.

- (3) The third constituting feature of Semantic Relationism is that the phenomenon is necessarily relational, not intrinsic. That is, no intrinsic semantic feature of the names can explain the distinction between the sentences “Cicero = Tully” and “Cicero = Cicero.” It can only be explained by invoking their relational features (Coordination).

Items (2) and (3) constitute claims of necessity and sufficiency of relational semantic features in explaining Frege’s puzzle. Item (1) is the explanation of the relational feature that leads to the semantic difference between pairs of coreferential expressions.

Coreferential names may be strictly coreferential or otherwise. The distinction can be explained in terms of Coordination. Consider the sentences “Cicero loves Cicero” and “Cicero loves Tully.” Both of them express the same singular proposition, but in only the proposition expressed by the first sentence (but not the second one), the two occurrences of Cicero should be taken to be coordinated, thereby indicating that they are represented *as* the same. The idea of being represented *as* the same/*being* the same is the mechanism invoked to explain Coordination. Coordination also works across sentence pairs such as “Cicero is Roman,” “Cicero is an orator” and “Cicero is Roman,” “Tully is an orator.” Each pair of sentences expresses the same pair of singular propositions. But there is a semantic difference between the two pairs, since the subject terms are strictly coreferential in the first pair, though not in the second.

In order to explain the cognitive difference between the two identities involving coreferential names from the direct referentialist’s perspective, Fine proposes rejection of the assumption that all logical consequences of semantic facts are semantic facts. Some consequences of semantic facts are indeed semantic facts (e.g., the coreferentiality of the name in “Cicero = Cicero”) while others are not (such as the coreferentiality of names in “Cicero = Tully”). To motivate this claim and demonstrate that it is consistent with the compositional character of semantics, he invokes the difference between classical and manifest consequences of semantic facts and then uses this distinction to propose a solution to Frege’s puzzle. “Coreference will not imply strict coreference since the fact that two names corefer is only a classical not a manifest consequence of the fact that each refers to what it does” (50). An ideal cognizer, one who is perfectly competent in drawing inferences from what he knows, may know that the object  $x$  can be predicated property  $F$  (or falls under the concept  $F$ ) under one “take” on  $x$  and that  $x$  can be predicated the property  $G$  (or falls under the concept  $G$ ) under another “take” on  $x$ , but not be in a position to infer that  $x$  can be predicted both the properties  $F$  and  $G$  (or falls under both the concepts). Since  $x$ ’s being both  $F$  and  $G$  (or something’s being  $F$  and  $G$ ) is a classical consequence of  $x$ ’s being  $F$  and  $x$ ’s being  $G$ , the Referentialist cannot take knowledge, even for an ideal cognizer, to be closed under classical consequence. However, for this cognizer, knowledge is closed under manifest consequence. A given proposition  $q$  is a *manifest* consequence of

other propositions  $p_1, p_2, p_3, \dots$  if it is a classical consequence of them and if, in addition, it would be manifest to any ideal cognizer who knew the propositions  $p_1, p_2, p_3, \dots$  that  $q$  was indeed a classical consequence of those propositions (48). Thus, two coreferential names in pairs such as “Cicero, Tully” or “Narendra, Vivekananda” are coreferential, but not strictly coreferential since knowledge of their coreference is not closed under classical consequence (but closed under manifest consequence). On the other hand, coreferential names in pairs such as “Narendra, Narendra” are strictly coreferential; knowledge of their coreference is closed under classical consequence. Notice that this semantic feature is a feature which cannot be had by names considered in isolation. It is only relevant in expressions involving multiple references to the same object. Thus, there is reason to support Fine’s advocacy of rejection of Compositionality.

Fine also maintains that semantics is not a body of fact, something to be “found” in the world. Rather it is a body of information, something to be “found” in the mind of the speaker. In the former case, it should be closed under classical consequence while, in the latter case, it should, at best, only be closed under manifest consequence. Thus, two names may be coreferential, but competent use of the names in the linguistic community does not require that their coreferentiality must be known by speakers and accounted for in their use in utterances. Such occurrences of names in a discourse are not coordinated. On the other hand, some coreferential names are such that their coreferentiality must be known and taken into account by the speaker to use them competently. Their coreferentiality or Coordination is thus a semantic requirement.

Till now, we have only considered Frege’s original form of the puzzle, in which expressions involve multiple occurrences of a name. But the puzzle also arises for the case of a single name occurrence, as with the sentences “Cicero is an orator” and “Tully is an orator.” Given that these sentences are semantically or cognitively different, a puzzle can then be generated in the same way as before. One would expect that the Relationist would offer a response similar to the above explanation given for two-name occurrence version of the puzzle. However, Fine offers a slightly different one in this case. He appeals to a *relative* difference between the two sentences, that is, a difference in the semantic relationship that each of them bears to other sentences, and to a corresponding relative difference between the two names. The first sentence will be strictly equivalent with the sentence “Cicero is an orator”—it will be semantically required that they have the same truth value or express the same uncoordinated proposition—while the second sentence will not be; and, again, the name “Cicero” will be strictly coreferential with “Cicero,” while the name “Tully” is not.

Thus, Fine presents a detailed theory of meaning which is radical in its conception. The theory is ambitious in scope because he hopes to solve not just Frege’s puzzle in its various guises, but also Russell’s antinomy of variables and Kripke’s puzzle about beliefs. Semantic Relationism is also an attempt to defend a referentialist position within the philosophy of language. By adopting a Relationist view of Coordination, the Relationist thinks that the referentialist can secure many of the advantages of the Fregean position without being committed to the existence of sense.

But the question is whether Semantic Relationism manages to solve Frege's puzzle beyond all doubts? The rest of this article is devoted to discussion of this question.

## Objections<sup>2</sup>

Firstly, although the distinction between classical and manifest consequences is conceptually clear, it is not obvious how this distinction can be accommodated within the Referentialist semantics. To explain the distinction, Fine talks of knowing an object under various "takes": "...our ideal cognizer may know that the object  $x$  Fs under one "take" on  $x$  and that  $x$  Gs under another "take" on  $x$ , but not be in a position to infer that  $x$  both Fs and Gs, or even that *something* both Fs and Gs" (48).

Since Fine believes that the distinction between classical and manifest consequences is a purely semantic affair, two inferences can be immediately made:

- (1) Within the Millian semantic framework, the various "takes" on an object  $x$  cannot be anything other than different "labels/marks" (i.e., names and demonstrative pronouns/indexicals) of the object. Admittance of any mediator (such as the Fregean sense or the Russellian definite descriptions) between the object and its various labels is a departure from direct referentialism.
- (2) These "takes" cannot be subjective. In other words, if one ideal speaker of the language considers two occurrences of the object in a singular proposition to be of the same "take," another speaker who understands that proposition cannot doubt it. Similarly, if two occurrences are considered to be instances of different "takes" by one speaker, another cannot disagree. If their opinions diverge, this can only mean that one of them has an incomplete understanding of the utterance and is therefore semantically incompetent.

These two inferences are in tension. Fine explicitly denies that the "takes" can be typographical/'literal' names: "It cannot be a matter of having the same typographic name on the left and the right (of "Cicero=Cicero"); for the name on the left could have been used for the orator and the name on the right for the spy. Nor can it be a matter of having the same name with the same reference on the left and the right (though this would be partly a semantic matter). For through a freak of transmigration, it might turn out that Cicero the orator is one and the same as Cicero the spy and, in this circumstance, the two uses of "Cicero" would still not represent the object as the same...in cases of anaphora (as when I say "I saw John, he was wearing a bowler hat"), we can have *two expressions representing an object as the same without the expressions themselves being the same*" (41). Thus, in "Paderewski=Paderewski" which has the same expressions on both sides, the two

<sup>2</sup> Lawlor (2010) and Soames (2010) raise different issues with the theory. Fine (2010a, b) are responses to those objections. Pickel and Rabern (2017), discussed elsewhere in this article, also doubt the efficacy of the theory in its present state.

names may not be strictly coreferential<sup>3</sup> even though the identity is true, whereas in “Peter = Carl” which has different expressions, the two names may turn out to be coordinated.<sup>4</sup> Therefore, the condition “the two occurrences of a name” cannot be a necessary condition for strict Coordination.

But if names cannot function as “takes,” what else could be responsible for the differential treatment of objects in language? According to Fine, two uses of a public language name will be coordinated when a speaker takes them to have the same use. “When two tokens of a given name are uttered by a single speaker, they will be coordinated if and only if they are internally linked [i.e. just in case the speaker takes them to have the same use]” (107).

But if Coordination is a function of speakers’ intention, it cannot be a matter of pure semantics. For the same utterance, context and linguistic community, two occurrences of the object *x* may or may not be coordinated, depending on the speakers’ intention in each case. If communication fails in such cases, the failure is pragmatic—a lack of understanding of speakers’ intention. It is not due to a lack of understanding of the names themselves. Therefore, I think we should not consider Coordination as a “semantic fact.” It cannot be explained by invoking syntax either. Syntactically, “Cicero = Cicero” is equivalent to “Paderewski = Paderewski.” Yet we have seen that the two names in the latter are not strictly coreferential. Therefore, I think that a Millian explanation of cognitive difference between the two identity sentences in Frege’s puzzle has to be grounded in pragmatics, not semantics, as Fine hopes.

Let me elaborate on Fine’s notion of a *semantic fact* to appreciate its effectiveness or otherwise in solving Frege’s puzzle. According to Fine, “These are the facts that are not merely statable in semantic terms but also *belong to the semantics of a given language*. Thus the fact that the sentence “snow is white” is true will not be semantic in this sense since it is not a fact about the semantics of any language, while the synonymy of “bachelor” and “unmarried man” presumably will be” (43, emphasis mine).

I think the phenomenon of Coordination between names is not analogous to the synonymy between two concepts such as “bachelors” and “unmarried men.” That bachelors are unmarried men can be known to be true regardless of the discourse in which these terms appear. The problem with proper names is that they are not concepts like “bachelor” which has only one meaning throughout the linguistic

<sup>3</sup> See (48). One may know that Paderewski is a brilliant pianist (having heard him at a concert) and also that he is a charismatic statesman (having observed him at a political rally), without realizing that it is the same person who is both. Therefore, the expression “Paderewski = Paderewski” fails Fine’s test (40) of semantic facts. One can sensibly doubt whether both occurrences in the expression relate the same object.

<sup>4</sup> See (46). Fine narrates the following story: when Carl Hempel, the famous philosopher of science, moved to Princeton, some of the philosophers there found the name “Carl” too Germanic for their taste and decided to use the English name “Peter” in its place. It is not that they *re-christened* Hempel with the name “Peter”; rather, they decided to use the name “Peter” as a *variant* of the name “Carl”..... it is a *convention*,.....that the name “Peter” should be coreferential with “Carl.” Someone who had competency in the use of each name but failed to recognize that the two names were coreferential would thereby display his lack of understanding of the....language.

community. There may be two persons in the community bearing the same name. So, while it is a semantic fact that “Cicero” refers to individual X and “Cicero” refers to Y, there is nothing in the semantic content of the name itself (for a direct referentialist) which makes “Cicero is Cicero” is true irrespective of the discourse where this utterance is made.

Fine also proposes the following test to detect cases of semantic facts: “An object is represented *as* the same (and hence a semantic fact) in a piece of discourse only if no one who understands the discourse can sensibly raise the question of whether it is the same” (40, phrase in parenthesis mine). This test seems problematic as well. At least, it fails to correctly identify Coordination or otherwise in all conceivable discourses. For example, suppose that in an award ceremony in a college, the speaker announces the name of the winners of a number of contests, followed by their short introduction. The announcer is acquainted (not in the strict Russellian sense) with all the winners. So is Mrs. X who is a member of the audience. The announcer says: “Z wins the essay competition; she is a student of sociology, 3rd year, Y wins the debate contest; he is a student of history, 2nd year, Z wins the dance competition; besides being a student of sociology, she is trained in Kathakali dance.” Mrs. X wonders whether Z, who won the essay contest, is the same person Z who won the dance contest. Fine would claim that it is a semantic fact that both occurrences of “Z” are coordinated. In both, the person Z is represented *as* the same and the speaker intends both utterances of “Z” to be coreferential as well. So, in raising a doubt regarding their coreference, is Mrs. X being semantically incompetent? Intuitively yes.

But now consider the possibility that Mrs. X is acquainted with two persons in the *same context*, both of whom are named “Z.” She knew that both were classmates in that college. But a month ago one of them, whom X knew to be a trained Kathakali dancer, left the college. But X is unaware of this fact. She also did not know that the remaining Z also happens to be a trained Kathakali dancer. In such a situation, X can sensibly question whether both occurrences of “Z” in a discourse refer to the same person.<sup>5</sup> Thus, by Fine’s own test for identifying semantic facts, the two occurrences of “Z” in the discourse are not coordinated. But from the speakers’ point of view, they are coordinated and in her speech she has uttered nothing which might suggest to the contrary. So, there is ambiguity as to whether the names are coordinated or not in this case

In defense of semantic relationism, one may argue that the disagreement/ambiguity about “Coordination” in examples of the above sort is merely an indication that the discourse under consideration has failed and communication is unsuccessful. It does not show that the notion of Coordination itself is defective. If the discourse were successful, there would not be such an ambiguity.

However, note that both the participants in the above discourse are competent users of the language and both know the meaning of all the terms used in the

<sup>5</sup> Here one cannot object that X is semantically incompetent with respect to the name “Z” because (1) she is acquainted with both of its referents, (2) she knows that both have the name Z and (3) there are plausibly many discourses wherein she can clearly ascertain which person is being referred to by the name Z. (e.g., she can clearly tell in which case the utterance “Z has such-and-such appearance” is true).

discourse. The context is also transparent to both. Yet communication failed in this case due to the unawareness of the hearer X about certain auxiliary data connected with what is being said. But the awareness of such circumstances is not a condition for semantic competency—it is a pragmatic demand on the participants that they should be aware of such auxiliary information which indirectly affect the meaning of what is said and communicated. In particular, it is not a semantic requirement on an ideal cognizer that she must include that information, implicitly or otherwise, in her utterances about Z. Fine (43) claims that “Coordination” is a semantic fact *in the same sense* as “Bachelor is synonymous with unmarried man” is a semantic fact. Both are of the same kind (semantic as to status). This example we considered clearly does not support such an analogy.

Pickel and Rabern (2017) too think that the theory is inadequate. They argue that it is not a matter of semantics that the sentence “Cicero is Cicero” always expresses a structured meaning in which the occurrences of the name “Cicero” are coordinated. But this means that Coordination must come from something other than recurrence of the public language names “Cicero.”

Fine (2010a), in an attempt to enrich the theory, introduces the idea that the referent of a name, i.e., the individual, may be differentiated into various token individuals corresponding to its occurrence in various token propositions. Each such token individual is the class of all those occurrences of the individual with which it is coordinated. Thus, in the expression “Cicero is Cicero” in which the two occurrences are strictly coreferential, there is a single token of the individual (referent), and in “Cicero is Tully” which expresses a negatively coordinated proposition, the two occurrences are two tokens of the individual. According to Fine, “Token individuals are a little like “guises” or individual concepts, but there is no special descriptive content or mode of presentation with which they must be associated.”(ibid., p. 480)

This explanation is consistent with Referentialist semantics. Still, this account is far from adequate. Fine himself admits that questions such as (1) “how is it that a token individual devoid of any special descriptive content or mode of presentation—can maintain identity across worlds?” and (2) “how far a token individual is free from its linguistic baggage—the name with which it is associated?” need to be tackled. To these worries, I may add: (3) No mechanism/condition has been suggested to distinguish different tokens of an individual, apart from Coordination. If the two occurrences of an individual are positively coordinated, these are represented by a single token of the individual, and if they are negatively coordinated, there are two tokens at work. But these tokens are indiscernible (otherwise this view will be inconsistent with Referentialist semantics). If the tokens of an individual are indistinguishable, why is there a difference in the number of tokens that are realized in the coordinated and the uncoordinated propositions? In the absence of any further concept, the job of distinguishing “Cicero is Cicero” from “Cicero is Tully” falls back again on Coordination. Therefore, Fine, in order to reinforce his theory of Coordination, introduces the notion of “token individual,” but this concept falls back on Coordination itself for its explanation. So, the account appears to be circular.

## Conclusion

The previous section detailed some problems with the application of principles invoked by Semantic Relationists for solving Frege's puzzle. These principles were shown to be inadequate for a satisfactory solution of the puzzle. Fine himself noted that a purely semantic solution based on only the intrinsic semantic content of proper names is not possible. But he does not give up on the possibility of a purely semantic solution to Frege's puzzle. Instead, he invokes relational semantic features of proper names and assumes that these relational features are a function solely of semantics of a language. This paper argues that this assumption is ill-founded. Fine is justified in holding that closure (i.e., logical consequence of semantic facts are semantic facts) should be rejected. But the reason it should be rejected is not purely semantic–pragmatics of the discourse should also be taken into account. If we are unwilling to give up the referentialist theory of names, we need to accept that the solution to Frege's puzzle lies in pragmatics of the case rather than relational semantics.

**Acknowledgements** I am grateful to an anonymous reviewer of this journal for extremely helpful comments which helped me to revise the paper substantially.

## References

- Fine, K. (2007). *Semantic relationism*. New York: Wiley-Blackwell.
- Fine, K. (2010a). Comments on Scott Soames "Coordination problems". *Philosophy and Phenomenological Research*, 81(2), 475–484.
- Fine, K. (2010b). Reply to Lawlor's "Varieties of coreference". *Philosophy and Phenomenological Research*, 81(2), 496–501.
- Frege, G. (1948). Sense and reference. *The Philosophical Review*, 57(3), 209–230.
- Lawlor, K. (2010). Varieties of coreference. *Philosophy and Phenomenological Research*, 81(2), 485–495.
- McKay, T., & Nelson, M. (2014). Propositional attitude reports. In E. N. Zalta (Ed.), *The Stanford encyclopedia of philosophy*. <https://plato.stanford.edu/archives/spr2014/entries/prop-attitude-reports/>.
- Pickel, B., & Rabern, B. (2017). Does semantic relationism solve Frege's puzzle? *Journal of Philosophical Logic*, 46(1), 97–118.
- Russell, B. (1905). On denoting. *Mind*, 14(56), 479–493.
- Salmon, N. (1992). *Frege's puzzle*, Atascadero, CA: Ridgeview, 1992; originally published by MIT Press in 1986.
- Soames, S. (2010). Coordination problems. *Philosophy and Phenomenological Research*, 2, 464–474.
- Unnsteinsson, E. (2018). Frege's puzzle is about identity after all. *Philosophy and Phenomenological Research*. <https://doi.org/10.1111/phpr.12516>.