



ON SUBSTITUTIVITY OF PROPER NAMES IN PROPOSITIONAL ATTITUDE CONTEXTS

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Abstract:

The main goal of the article is to argue for admissibility of substitution of coreferential proper names in belief contexts which generally has not been allowed in the logico-semantic tradition that dates back to the works of G.Frege. The main object of criticism is a so-called principle of disquotation, as formulated by S.Kripke, which conditions the prohibition of the aforementioned substitution and which is accepted within the Fregean tradition. Some related issues associated with the works of R.Carnap, W.V.O.Quine, and N.Salmon are addressed.

Two Tenets of Traditional Semantics

The tradition in philosophy of language that goes back to Gottlob Frege has attached much importance to Leibniz's law according to which expressions which have the same meaning are interchangeable in all contexts *salva veritate* (i.e. without a change in truth value) and to the distinction between the so-called extensional and intensional contexts. The latter contexts are divided into modal ones and those of propositional attitudes. The distinction has to do with issues concerning substitutivity of expressions and ultimately with their meaning. It has been believed that while all coextensive expressions (i.e. expressions that refer to the same entities) are interchangeable in extensional contexts, not all of them are interchangeable in the intensional ones. It has also been believed that the meaning of an expression consists of an extension (denotation, reference) and an intension (sense). And the latter has been considered as a mode of presentation of the former.

The works of Ruth Barkan Marcus, Saul Kripke and some other theorists in late 1960's and early 1970's provided strong arguments in favor of a different approach to the analysis of proper names. It has been argued that they refer to their objects directly as tags or rigid designators and not via sense as a mode of presentation of reference. Kripke showed how proper names designating the same object could be interchangeable in modal contexts *salva veritate*. This approach was extended to some other expressions, such as natural kind terms, demonstratives and indexicals. But Kripke and many of his followers still argued against interchangeability of expressions (proper names as well as other expressions) with the same meaning in the contexts of propositional attitudes. Thus in what concerns these contexts the tradition persisted.

To illustrate the traditional approach to these contexts we can consider a sentence

(1) Cicero is a great Roman orator.

According to the traditional approach (1) represents an extensional context and the name “Cicero” can be substituted for the name “Tully” (so long as it denotes the same individual) without a change in the truth value of the original sentence to produce

(2) Tully is a great Roman orator.

However such a substitution is not allowed in a context of a propositional attitude. In other words it is not permitted to transfer from a sentence like

(3) Jones believes that Cicero is a great Roman orator

to a sentence like

(4) Jones believes that Tully was a great Roman orator

since it has been argued that such a transition (unlike that from (1) to (2)) does not preserve the truth value of the original sentence. And if the truth value of (4) can be different from that of (3) then by Leibniz’s law this result precipitates in a conclusion that the meaning of the terms “Cicero” and “Tully” has to be different notwithstanding the sameness of their reference.

It was this kind of analysis that led Frege to introduce along with a notion of reference a notion of sense of an expression as a second part of an expression’s meaning. According to Frege a difference in sense is what distinguishes the so-called informative identities¹ (such as “Cicero = Tully”) from tautologies (such as “Cicero = Cicero”).

Thus a tradition was set up according to which informativeness (or cognitive significance) of identities was considered an indication of (i) nonsubstitutivity of the corresponding expressions in propositional attitude contexts and hence of (ii) a difference in their meaning.

In what follows I will try to argue against these two tenets and show why I believe cognitive significance (whatever it is) has nothing to do with the issues of either substitutivity of expressions in propositional attitude contexts or their meaning to the extent that the discipline of semantics is concerned.

But before I begin I would like to make some necessary clarifications. In my argument I will make a case only for proper names and not for sentences or any other kinds of expressions. Thus the very expression “propositional attitude contexts” introduced by Bertrand Russell² and significantly popularized by W.V.O. Quine³ seems not very appropriate for my purposes since it gives an impression of a need for an analysis of propositions which are most often expressed by sentences. And proper names do not express or denote propositions. At best they can be associated with constituent parts of propositions. So may be it would have been better for me to follow Rudolf Carnap and call these contexts “psychological.”⁴ But I will not do that because most of the other theorists that I will cite also refer to these contexts as those of propositional attitudes and discuss them in terms of propositions. And an unnecessary confusion of terminology is something that I would like to avoid here. Moreover whatever I will say about the semantics of proper names in these contexts ultimately does not seem to preclude their analysis in terms of propositions. So my only adjustment in this respect will have to do with the way I will represent propositions that follow after a “that” clause. When most theorists present them simply as “p” I will in addition present them as “Pa” (where “a” will stand for a proper name and “P” for a corresponding predicate) in order to stress my focus on the proper name used.

The Traditional Argument

It has already been mentioned that the tradition makes extensive use of Leibniz's law. As a matter of fact this law lays the foundation of an often used argument that stresses the difference between tautologies and informative identities in what concerns the theory of meaning. This argument can be formulated in the following way:

(A1)

If two proper names a and b have the same meaning, then it cannot be that "S believes that Pa " is true and "S believes that Pb " is false at the same time.

But as a matter of fact "S believes that Pa " can be true while "S believes that Pb " being false (even if " a " and " b " denote the same individual object).

Therefore, proper names a and b do not have the same meaning.

It seems counterintuitive to disagree with Leibniz's law. However this fact by itself does not yet make the whole argument in (A1) nonproblematic since there is the second premise which I believe is the root of all relevant evil. Thus I would like to focus attention on it. And the question that I would like to address here has to do with the reasons why the tradition considers it true (which it does, otherwise the argument is not valid).

The Principle of Disquotation

The answer to this question that is often given (or at least implied) refers to the fact that S, while accepting (assenting to) sentence " Pa " might not accept sentence " Pb ". This in its turn is considered a reason to conclude that S believes that Pa and does not believe that Pb . The basis for this reasoning is presented in a so-called principle of disquotation which has been implicitly used by many adherents of the tradition but to my knowledge was first explicitly formulated by Saul Kripke.⁵ In its rough form this principle states

(DP1) If a person accepts " Pa ", then he or she believes that Pa .

This principle can be formulated in a stronger form representing a biconditional instead of a conditional:

(DP2) A person accepts " Pa " if and only if he or she believes that Pa .

It is this principle that the tradition uses in order to justify the truth of the second premise in (A1) and to show that the meaning of " a " and " b " cannot be the same notwithstanding their sameness of denotation.

If we take this principle just at its face value it seems to me quite easy to show that it is false. Consider an example of Frank who accepts "Cicero is Roman" and believes that Cicero is Roman. Now if "Cicero" denoted Plato, then Frank would not have accepted "Cicero is Roman" but he would still believe that Cicero is Roman. On the other hand, if "Cicero" denoted Plato and "Roman" meant Greek, then Frank could accept "Cicero is Roman". But of course in such a case his accepting it would not entail his belief that Cicero is Roman. Frank could be ignorant of the history of the Roman Empire, not

know anything about Cicero and not believe that he was Roman. And this is what I would consider a refutation of the principle of disquotation in its rough form.

However the rough form is not exactly the way this principle was presented by Kripke and accepted by many others. In his formulation of this principle Kripke makes a reservation that we are dealing with a normal, sincere and reflective speaker who assents to “p”. Kripke formulates the principle in its conditional and biconditional forms in the following way: “*If a normal English speaker, on reflection, sincerely assents to ‘p’, then he believes that p*” and “*A normal English speaker who is not reticent will be disposed to sincere reflective assent to ‘p’ if and only if he believes that p*”⁶ and calls it “a self-evident truth”. In such a form the principle of disquotation seems to avoid the counterexamples mentioned above. But this fact by itself, as I will try to show, does not relieve the principle from its problems.

In order to demonstrate what I think is wrong with this refined version of the principle I will need to analyze Kripke’s aforementioned reservations. But before this can be done it seems that the notions of normality and reflexivity used by Kripke need to be clarified in the sense that is relevant for the semantic issues that are being considered here. Normality is a normative concept and reflexivity is psychological. What could be their equivalents that would limit their relevance only to the field of semantics and probably to the related epistemological issues?

It seems quite natural to pick out as alternative candidates for “normal and reflective” the terms “competent and understanding the sentence”. First of all such a substitution seems to be suitable because when we are dealing with a speaker who accepts some sentence “p” our characterizing him as normal and reflective cannot exclude his competence in the language and his understanding of the relevant sentence. It can however sometimes presuppose some other characteristics. But at the same time in most cases competence and understanding seem to be quite sufficient on their own to describe a speaker as normal and reflective in such a situation.

This choice also seems to be supported by other theorists (those who are in agreement with Kripke’s principle as well as those who are critical of it). Nathan Salmon who supports Kripke on the issue of self-evidence of the principle writes: “*Sincere, reflective, outward assent (qua speech act) to a fully understood sentence is an overt manifestation of sincere, reflective, inward assent (qua cognitive disposition or attitude) to a fully grasped proposition*”.⁷ Scott Soames who rejects the principle talks of it as follows: “*Sentences S_1 and S_2 may mean the same thing, and express the same proposition p , even though a competent speaker who understands both sentences, associates them with p , and knows of each that it expresses p , does not realize that they express the same proposition*”.⁸

So I will use the terms “competent” and “understanding” as alternatives for Kripkean “normal” and “reflective” and reformulate the principle of disquotation (in its biconditional form) in the following way:

(DP3) A competent English speaker who fully understands “Pa” and is not reticent will be disposed to sincere assent to “Pa” if and only if he believes that Pa.

If I am right then the problem with the principle of disquotation becomes vivid. A *competent speaker* in this case is the one who is aware that “Pa” means Pa when it really does mean it. And a *speaker who fully understands “Pa”* is the one who grasps the proposition that Pa, and only it, when he or she encounters “Pa”. “Believing that Pa” in its turn also means grasping that Pa and accepting that Pa (Salmon, for example, calls *traditional* the conception of belief as inward assent to a proposition⁹). Thus a reformulation of Kripke’s version of the principle will yield:

(DP4) An English speaker who is aware that “Pa” means Pa when it really means it, who grasps the proposition that Pa, and only it, when he or she encounters “Pa”, and who is not reticent will

be disposed to sincere assent to “Pa” if and only if he or she grasps the proposition that Pa and accepts that Pa.

But this seems somewhat trivial (if not tautological) given that “Pa” means Pa and that the speaker is aware of it. In other words when it is stated in our premises that “Pa” is always to be associated with Pa, and only with it, then the conclusion does follow by definition: a speaker cannot assent to “Pa” without simultaneously accepting that Pa. However it has been shown in the examples of Frank above that “Pa” need not always be associated with Pa and, consequently, accepting “Pa” need not always entail accepting that Pa. Such a narrowing down of the scope of possible meanings of “Pa” only to Pa and considering these cases exclusively when discussing assent to sentences and belief in propositions not only remains unjustified but also very much resembles the logical fallacy of accident (*a dicto simpliciter ad dictum secundum quid*).

Thus if my argument above is valid then the principle of disquotation in its rough form is simply false and in its revised form it becomes tautological and based on an unjustified and, in fact, false statement. Neither of these two variants seems satisfactory.

Some theorists however (notably Salmon) argue against denying the principle of disquotation because of its alleged self-evidence and the fact that we cannot successfully construe having a belief in the terms other than those of having some disposition (such as that of an assent) to a corresponding proposition. However being disposed in such-and-such a way to a proposition is not the same as being disposed in the same way to a sentence. It has been shown above that the former can obtain without the latter and vice versa.

Thus it seems that we need to agree that sentences

S accepts “Pa”

and

S accepts that Pa

talk about different things and notwithstanding their frequent match in truth value ultimately have different conditions of truth. This is the reason why we can deny the principle of disquotation without denying the so-called traditional approach to explaining belief that Pa in terms of having some disposition towards the proposition that Pa.

Validity of Substitution

If the above is valid then we can look at premise 2 from (A1) from a different perspective. Let’s consider again

(3) Jones believes that Cicero is a great Roman orator.

We can ask a question: if this sentence is true (and John in fact does have a *de re* belief about Cicero that he is a great Roman orator) then what can prevent us from substituting “Cicero” for “Tully” and stating that

(4) Jones believes that Tully was a great Roman orator

preserves the truth value of (3) and thus is also true?

Now, the traditional answer about Jones' not accepting

(2) Tully is a great Roman orator

will not do the trick since it is based on the principle of disquotation that has been rejected. Another possible answer can consist in appealing to Jones' denying (4) (which is not an impossible situation). However in this case we need not forget that Jones' accepting or denying (4) is not a condition of its truth or falsity just like anyone's agreeing or disagreeing with some sentence does not make it true or false.

It seems that the only valid truth condition for (4) is Jones' possession of a corresponding attitude of *de re* belief about the concrete individual. But as a matter of fact it turns out that possession of this same *de re* attitude is the reason why (3) has its truth value to begin with. And since we are given that (3) is true it means that this state of affairs does obtain. Hence (4) should be true just in the same way as (3) and a transition from (3) to (4) should preserve the original truth value. This means that the terms "Cicero" and "Tully" can in fact be interchangeable in the contexts of propositional attitudes and that tenet (i) is not correct.

Two morals can be drawn from the above. The first one is that we need not always consult Jones in order to make a transition from (3) to (4) and in other similar cases. And our conclusion here will state that even if "Cicero = Tully" is an informative identity (for Jones or someone else), this fact by itself has nothing to do with the question of substitutivity (interchangeability) of these two terms. The second moral states that we need to distinguish between cases of direct and indirect speech when discussing the issues of reference. Interchangeability of terms like "Cicero" and "Tully" is not permitted in cases of direct speech when these terms are rather mentioned than used. Thus a transition from (3') to (4') is never permitted:

(3') Jones says: "Cicero is a great Roman orator"

(4') Jones says: "Tully is a great Roman orator".

But cases of direct speech have never by themselves raised any of such problems.

Sameness of Meaning and Quine's Obstacle

After what has been said about the problems with tenet (i) it might be tempting to use Leibniz's law to show that if "Cicero" and "Tully" are interchangeable in all contexts including those of belief ascription then both terms do have the same meaning. However an automatic transition from an argument against tenet (i) to an argument against tenet (ii) with a guaranteed successful result would seem to be somewhat hasty.

The reason for this lies in the fact that independence of the question of interchangeability of expressions from the question of a subject's attitude or disposition towards a corresponding sentence does not by itself make terms like "Cicero" and "Tully" synonymous. In other words in the above examples I only *assumed* that "Cicero" and "Tully" have the same meaning (semantic content) and showed that a subject's attitude to the corresponding sentences should not be viewed as a determinant of the meaning of these terms. But if "Cicero" and "Tully" are not synonyms then a transition from (3) to (4) will not be permitted no matter whether the bearer of the corresponding propositional attitude accepts the corresponding sentences or not. And there is a famous argument by Quine against the

notion of synonymy which entails that all informative identities represent synthetic and not analytic truths. In our case this would mean not only that the chosen example of “Cicero” and “Tully” would be a bad one but also that no such example can be found in principle. So before rejecting tenet (ii) an account of Quine’s argument against synonymy must be given.

The first thing that must be said in respect of Quine’s argument is that it is not really an argument *against* the notion of synonymy. Never in his “Two Dogmas” does Quine say that synonyms do not exist. He merely states that the notion of synonymy is a vague one.¹⁰ In our case this can mean not that there can be no synonyms in principle but that it is really hard to think of an example of two synonymous expressions which would not clash with Quine’s criticism of the analytic/synthetic distinction.

If so then we should not treat Quine’s argument as implying that interchangeability in belief contexts is never possible. Moreover in our language practice we do have synonyms and we do substitute them in belief contexts. An example of such a use, for example, can be provided by chapter 1 of the Constitution of Russia which in paragraph 2 states that the names “Russia” and “The Russian Federation” mean the same. In other words it is implied that in any sentence in which either of the terms is used (and not merely mentioned) a substitution of one for the other will not result in a change of truth value.

One might say that in this case we are dealing with an example of a postulated synonymy and that such cases are different from those discussed by Quine in his article. But in fact it seems hard to see why the often occurring cases of postulated synonymy should not be considered as cases of synonymy.¹¹ And the fact that in different idiolects different pairs of expressions are regarded as synonymous should not be considered as problematic since when we are dealing with matters of semantic content of expressions and the truth values of the sentences that contain them we cannot do otherwise but stay within the borders of one chosen idiolect and treat as synonymous only those pairs of expressions that satisfy its corresponding requirements. We can disregard the fact that in some other idiolects the set of pairs of synonyms may not coincide with that in our idiolect. Matters of interidiolectal translation should rather be viewed as matters of a theory of communication and not of a theory of meaning.

So returning to the discussion of tenet (ii) we can admit that there can exist expressions which have the same meaning and at the same time form informative identities. And, again, our language practice shows that such expressions not only can exist but that they do exist. And the fact that we can never agree on one set of synonyms once and for all does not mean that synonymy should not be a notion employed within the discipline of semantics as well as within philosophy of language in general. Thus a refusal to address the issue of interchangeability of expressions in the so-called “opaque” contexts (another name for propositional attitude contexts proposed by Quine) cannot be seen as an appropriate strategy for a semantic theorist.

The Object of Semantic Analysis

The critique that has been formulated above presupposes a semantic theory that is different in many respects from that which is associated with the names of Frege and Russell. A characteristic distinction of this theory consists in the fact that it treats neither epistemological factors (such as cognitive significance) nor psychological (as a subject’s mental dispositions to sentences) as elements which determine the meaning of linguistic expressions. This semantic theory rests on an understanding of semantics as a discipline which is focused on a study of designation (a relation between signs and corresponding entities).¹² Such a theory would not consider as objects of semantic analysis the matters

of syntax, morphology, pragmatics, communication and many other questions that rise in some of the related disciplines.

Thus such a theory would treat as irrelevant the question which, according to Kripke, generates a paradox which every theory of belief and names is allegedly supposed to address. In connection with his famous example of Pierre Kripke formulates this question in the following way: “Does Pierre, or does he not, believe that London is pretty?”¹³

A semantic theory (and especially a theory of naming) according to the approach indirectly supported here is not oriented on answering questions like this one, i.e. questions about beliefs. A semanticist cannot say what is on Pierre’s (or someone else’s) mind, she cannot say what his psychological dispositions are, etc. What a semanticist can say in a case like that of Pierre at best consists in something like the following: if two terms “London” and “Londres” mean the same and “Pierre believes that London is pretty” is true then the two terms are interchangeable in all contexts *salva veritate*. Expecting from a semantic theory that it answers what Pierre really believes or which concrete terms are synonyms is just as hopeless and unreasonable as expecting from a theory of logic that it answers which atomic sentences are in fact true.

Concluding Remarks

The ideas discussed in this text are not new. The question of a possibility of substitution of terms in belief contexts had already been raised by Carnap in his *Meaning and Necessity*. An important contribution was made by David Kaplan.¹⁴ And coherent formulation of a theory similar to the one I have been advocating here has been offered by Nathan Salmon.¹⁵ However for Carnap the question of a subject’s assent to (or dissent from) a certain sentence was an important factor guiding him in his formulation of the theory, specifically in his introduction of the notion of intensional isomorphism. Based on similar considerations Kaplan introduced his ternary relation of representation along with the notions of vividness and *of*-ness for names. Salmon also stresses the importance of “the way in which the subject takes the object”.¹⁶ He calls this way a third *relatum* for a theory of belief but specifies that it is “entirely separable from the semantic nature of the relevant sentence”.¹⁷ If so then the main goal behind the argument of this paper is to show that an account of reference and a semantic theory in general can and should do without mentioning this third *relatum*.

I have tried to make a case only for proper names which I viewed as linguistic tags of objects. However similar considerations can be extended to an analysis of other singular and general terms (indexicals, demonstratives, descriptive names, definite descriptions, natural kind terms, mass terms, vague terms, etc.). Hopefully further research can show which specific characteristics such an extended semantic theory will have.

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Notes

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2. Russell, B. "The Philosophy of Logical Atomism", *The Monist* 28: 495-527; 29: 32-63, 190-222, 345-80.
3. Quine, W.V. "Quantifiers and Propositional Attitudes", *Journal of Philosophy* 53, 1956.
4. Cf. Carnap's "sentences with psychological terms" in Carnap, R. *Meaning and Necessity. A Study in Semantics and Modal Logic*. Chicago: The University of Chicago Press, 1947: 53.
5. Kripke, Saul. "A Puzzle About Belief" in Peter Ludlow (ed.) *Readings in the Philosophy of Language*. MIT, 1997. Pp. 875-920. (Originally published in Margalit, Avishai (ed.) *Meaning and Use*. Dordrecht: Reidel, 1979).
6. Kripke, S. Op. Cit. Pp. 885, 886.
7. Salmon, Nathan. *Frege's Puzzle*. Cambridge: MIT Press. 1986. P. 130.
8. Soames, Scott. *Reference and Description: the Case Against Two-Dimensionalism*. Princeton, 2005. P. 79.
9. Salmon, Nathan. Op. Cit. P. 130.
10. In this way Quine writes: "Just what it means to affirm synonymy, just what the interconnections may be which are necessary and sufficient in order that two linguistic forms be properly describable as synonymous, is far from clear; but, whatever these interconnections may be, ordinarily they are grounded in usage". "Two Dogmas of Empiricism" in *From a Logical Point of View*. Harvard University Press, 1961. Pp. 24-25.
11. Cf. Rudolf Carnap's "Meaning Postulates" (*Philosophical Studies*. 1952 3: 65-73) as a reply to Quine's criticism.
12. In many of its respects such an understanding goes back to the works of Charles Morris.
13. Kripke, S. Op. Cit. P. 895.
14. Kaplan, D. Quantifying In // *Synthese* 19 (1968-1969): 178-214.
15. Salmon, N. Op. Cit.
16. Salmon, N. Ibidem. P. 103.
17. Salmon, N. Op. Cit. P. 120