Ramsey´s theory of truth and the origin of the prosentential account

María J. Frápolli

1.   Introduction

The aim of this chapter is to discuss Ramsey´s theory of truth. One of the (few) theses that everybody relates to Ramsey´s thought is the redundancy theory of truth, as it has been called. I will maintain in the following pages that Ramsey never supported such a position about truth, but rather an analysis of this notion strikingly similar to the present prosentential account. In fact, the very word "pro-sentence" appears for the first time in the history of philosophy in Ramsey´s paper "The nature of truth", written around 1927 and posthumously published by Ulrich Majer and Nicholas Rescher in 1991.

Ramsey´s main concern was to offer an analysis of belief and judgment. If his view about truth has to be properly understood it has to be interpreted keeping this general background in mind. Allegedly, Ramsey´s theory of truth is found in his essay "Fact and Propositions" (1927) where the author asserts: "it is necessary to say something about truth and falsehood, in order to show that there is really no separate problem of truth but merely a linguistic muddle." (1990, p. 38). Appearances notwithstanding, Ramsey does not argues for the vacuity of the truth operator, his aim is rather to explain the connections between truth and falsehood, on the one hand, and the notions of judgment, belief and assertion, on the other. Thus, what one encounters in (1927) is, basically, an analysis of the epistemic operators from a logico-semantic point of view. About truth, Ramsey´s conclusion in this paper is that, once the philosophical treatment of judgment and belief is accomplished, the philosophical difficulties with which the notions of truth and falsity are fraught will dissolve. For the notions of judgment and belief pose serious difficulties to philosophy, while to understand the import of the terms "true" and "false" is a relatively easy task. Everybody knows what he means with "true" and "false", although to explain it is far from simple. And a source of muddle comes from infecting the semantic operators of truth and falsehood with epistemic notions like judgment and belief. Ramsey

undertakes the project of developing a theory of truth in his paper "The nature of truth" and there a more substantive account is offered.

My purpose in this chapter will be the following. First, I will explain Ramsey's theory of truth and its place in Ramsey's thought. Secondly, I will discuss modern prosentiatialism and show how Ramsey´s view not only fits the paradigm but also is the first clear and detailed formulation of it. And thirdly I will argue for the accurateness of the prosentential account and thus for Ramsey's proposal as the correct view on truth from a logical point of view.

2.Ramsey´s Theory of Truth

Until the publication in 1991 by Rescher and Majer of the collection of previously unpublished materials, under the title *On Truth*, the classical locus to find Ramsey's position on the topic was his paper "Facts and Propositions" (1927). His paper of (1926), "Truth and Probability", in spite of what the title suggests, does not deal with the notion of truth. The first chapter of *On Truth* is a relatively self-contained work, untitled "The Nature of Truth", which is the only place in which Ramsey explicitly undertakes the task of providing an analysis of the semantic notion of truth. Both works, "Facts and Propositions" and "The Nature of Truth", were written by the same time and the contrast between them is illuminating. In "Facts and Propositions", the general context of a theory of truth is supplied; the context at issue is a philosophical treatment of the notions of belief and judgment. But the unfolded treatment of the notion of truth only appears in "The Nature of Truth". "Facts and Propositions" was one the few papers that were prepared for publication by Ramsey himself and thus it has to be supposed that it contains what he thought was his final view on the matter by that time. On the other hand, "The Nature of Truth" is obviously an unfinished work. But for the purposes of this chapter what Ramsey explains there is more than enough to rescue what would have been his mature view on truth.

In this section, I will describe Ramsey's views closely following the two works mentioned. Interpretation and evaluation of them will come later.

Let us begin with "Facts and Propositions". As Ramsey explicitly affirms, the aim of the paper is to offer a logical analysis of what may be referred to by the terms "belief", "judgment" or "assertion", that he takes as synonyms. Belief (judgment, assertion) is a relation between two poles, or two factors, as he calls them. There is a mental factor, my present mental state, or words or images in my mind, and an objective factor, facts or events in the world. And to say that I believe that Caesar was murdered is to maintain that a particular kind of relation holds between my mental state and the objective factor related to it. About what kind of relation belief is, Ramsey endorses Russell's position in "The Nature of Truth and Falsehood"[1], were Russell rejects his previous view of belief as a binary relation between a subject and an object, a proposition in this case, in favour of a multiple relation between the subject and the ingredients of the proposition itself. Thus, my believe that Caesar was murdered is a relation between me, Caesar and murdering, and more complex beliefs might require more complex relations although Ramsey allows the possibility that the multiple relation were not simple but one in which different ingredients were related to each other somehow. Here the problem of the multiplicity of the belief relation arises. Ramsey does not treat it in extense, but both Loar and Sahling[1] defend that there are clues that allow to interpret Ramsey's view as one in which the belief relation is a relation between a subject and the intentional abstraction of an ordered set, and thus the philosophical difficulty related to the adicity of the belief relation disappears. Ramsey acknowledges that his account of the objective factor of belief is sketchy and far from satisfactory, but leaves it that way.

In this setting, Ramsey poses the problem of truth. "There is no separate problem of truth", he says (1990, p. 38), "but merely a linguistic muddle". The emphasis here is put on "separate", for his view is that where essential philosophical questions are at issue is in understanding the notions of belief, judgment and assertion. Once that this is accomplished, the notion of truth will fall smoothly in its place freed of epistemic contamination. Truth and falsehood play paradigmatically their role in the scenario defined by epistemic notions as belief, but it is possible to offer a definition of them in which epistemic notions are not involved. What Ramsey upholds in this paper is that the logical analysis of truth is independent of the analysis of belief, and that most of the traditional difficulties related to the analysis of truth are in fact difficulties of the analysis of other notions such as the already mentioned. To say that the (separate)

---

[1] Sahling (1990, p. 69), Loar (1980), Ramsey (1991, <u>Chapter III</u>)

problem of truth is no more than "a linguistic muddle" does not commit one to embrace a redundancy theory of truth. Different authors with substantive views on truth have expressed more or less the same feeling. Austin, a champion of correspondence, maintained that "the theory of truth is a series of truisms" (1950 p. 152) while at the same time vigorously rejecting that the truth predicate is logically superfluous. This is also Ramsey's case.

In (1927), propositions are the truth-bearers. Ramsey considers that we ascribe truth and falsity primarily to propositions. In (1991) he sustains a slightly different view, being then mental states, such as beliefs, the class of thing to which "true" and "false" are applied. The possibility of that the primary truth-bearers were indicative sentences is dismissed as "not a serious rival" (p. 7), because he considers obvious that true or false is what people mean by these sentences and not the sentences themselves. But mental states are truth bearers insofar as they possess what Ramsey calls a "propositional reference". Thus his position in (1927) and in (1991) are arguably equivalent.

If propositions and not sentences are the primary truth-bearers, this already shows a straightforward escape from the semantic paradoxes, but to this topic I will come back later. In truth ascriptions truth is predicated of propositions. Propositions are referred to by expressions that belong to two different types. In one, the referred proposition can be recovered from the referring phrase, as when quotation marks are used, in the other cannot, as when the proposition is reached by a description. Sometimes, this distinction is marked talking of expressions and designations of propositions. This topic will be developed in section 3.1 below. Without using this terminology, Ramsey assumes the two ways of pointing to propositions and only of the first he expresses the view that the truth predicate can be dispensed with. In fact, he says that "It is true that Caesar was murdered" only means that Caesar was murdered, although it might be stylistic reasons that advise to use the former way. Nevertheless, this is not so when descriptions of propositions are at stake. When propositions are not explicitly given in the truth sentence, the truth predicate cannot be eliminated in natural languages (1927, pp. 38-39). Thus, there is no claim of redundancy here. Some uses of the truth predicate are dispensable, but others, those in which the truth predicate earns its life, are not. But, in (1927) there is nothing else about the role of the truth predicate. The topic is dealt with in (1991). And here what is displayed is not a redundantist theory of truth but a prosentential account.

The philosophical question that Ramsey addresses in this paper is not what is truth but what is the meaning of "true". The answer is obvious, because as many philosophers have defended after and before him, everybody knows what the predicate means. This is the answer of Aristotle, but also of Wittgenstein, Strawson, Austin, Prior, Tarski, Williams, Grover, etc. all throughout the XX century. What is the problem then? Tarski, for instance, expresses exactly the same idea in (1935, p.152) and his famous diagnosis that truth cannot be defined in natural languages admits a charitable explanation if it is interpreted as a dim formulation of one of the tenets of the prosentential account.

The problem then is not to understand what "is true" means but to *say what it means*, because natural languages lack the appropriate expressive tools to explain the meaning of truth without using the very predicate or a closely related one. That the truth predicate performs a role that cannot be explained without using it is what the prosentential theory of truth claims and also a proof that the truth predicate is not redundant. But let us go first to Ramsey´s definition. In (1991, p. 9), we read: "We can say that a belief is true if it is a belief that p, and p." And he explains that p is a sentence variable that can represent any propositional structure whatsoever. We might predicate truth of a disyuntive proposition, and then say: the belief that either p or q is a true belief because either p or q; or of a general proposition and say: the belief that every A is B is a true belief because every A is B, and so on. And p, as a sentential variable, involves a verb already, and thus there is no need to add to the definition "is true", what will render this view circular, as Ramsey explicitly acknowledges.

Does not this show that the truth predicate is redundant? I am defending that the answer is negative. To understand Ramsey's position is essential to take into account that there are ways of referring to propositions from which the proposition referred to is not recoverable. But this point will be argued for when we explain the prosential account at length. By now it will be enough to consider Ramsey's own words:

> As we claim to have defined truth we ought to be able to substitute our definition for the word "true" wherever it occurs. But the difficulty we have mentioned renders this impossible in ordinary language which treats what should really be called *pro-sentences* as if they were *pro-nouns*. The only pro-sentences admitted by ordinary language are "yes" and "no", which are

regarded as by themselves expressing a complete sentence, whereas "that" and "what" even when functioning as short for sentences always require to be supplied with a verb: this verb is often "is true" and this peculiarity of language gives rise to artificial problems as to the nature of truth, which disappear at once when they are expressed in logical symbolism, in which we can render "what he believed is true" by "if p was what he believed, p". (1991, p. 10, Ramsey's emphasis)

This is the first time that the expression "pro-sentence" is used to mark the role of the truth predicate, although Ramsey's paper was not published until 1991.

Thus, Ramsey's account of the meaning of the truth predicate is, in a nutshell, the following. The grammatical predicate "is true" is a tool of natural languagues to build pro-sentences with the grammatical status of sentences. Words as "yes" and "no" act as prosentences from a logical point of view but have the grammatical category of adverbs. Words as "it", "that" and "what" can assume the role of prosentences although with the grammatical category of singular terms. Then, it is necessary to possess sentential pro-sentences, let us say it this way, to perform certain logical operations that cannot be otherwise performed. As the rest of pro-forms, pro-sentences cannot be eliminated altogether from natural languages without loss of expressive power, in the same sense in which pro-nouns cannot be eliminated from natural languages without loss of expressive power. This does not mean that particular uses of proforms are not eliminable. Sometimes a pronoun can be substituted by a noun, and a prosentence by a sentence. But the general category has a especialised role to fulfill, that performed in artificial laguages by variables of different categories. For this reason, it is easy to misunderstand the import of Ramsey's definition, "We can say that a belief is true if it is a belief that p, and p.", because we forget that it is not formulated in natural language terms. As soon as we use propositional variables, the truth predicate is prescindible. But then we have escaped from natural languages to the realm of artificial languages with propositional variables. In these hybrids languages the truth predicate is no longer necessary but only because its job has been taken by expressions especifically added to perform it.

Ramsey thought of his position as a soundly formulated theory of truth as correspondence and rejected as untenable pragmatist and coherentist approaches to the problem. "A belief that *A* is *B* is true if and only if *A* is *B*", he defined in (1991, p. 18), and according to him neither Pragmatism nor Coherentism can explain this basic intuition.

Ramsey's early formulation of a prosentential view on truth will become clearer in what follows.

3. The prosentential account of truth

A prosentential view on truth has been shown from time to time in the analytic tradition during the XX century. The origin of this view is Aristotle, with his: "to say of what is that it is and of what is not that it is not is true" (*Metaphysics* 1011^{b}27). Aristotle's sentence has been paradigmatically interpreted as an expression of a correspondence theory of truth. Although the intuitions under the correspondence theory are widely accepted, to embrace a developed and substantive correspondence approach is another story. The correspondence intuition allows a trivial and uncommitted implementation or a metaphysically burdened one. In the first case, it asserts that truth has to do with what is said by the users of language about the world together with how the world is, and it is a relatively harmless position. In the second case, it asserts that truth is a relational concept between two poles, the pole of language, and the pole of world. Here an account of the two poles is called for and in doing so the room for philosophical disagreement emerges. Most proponents of theories of truth have vindicated Aristotle as a precursor. Ramsey, Williams and Grover, all defenders of prosentential accounts are no exception. And it is significant that in "The Nature of Truth" Ramsey fights to distinguish his view from a correspondence theory, while presenting his own proposal on truth as an attempt to clarify Aristotle's *dictum*.

Let us begin with Aristotle.

What a prosentential theory of truth aims to do? Basically to define the predicate "is true" from a logical point of view, i.e., to offer an account of how the truth operator works. What we seek when we analyse the truth operator is to determine

the logical form of truth ascriptions. A quick way into the topic is to ask what a speaker wants to say with a truth predicate or in which communicative situations a normal speaker (as opposed to a philosopher) puts the truth predicate at work. And the answer is illuminating for it shows that it is difficult to find real communicative exchanges in which the paradigmatic examples used in philosophical handbooks display their utility. That what the sentence "snow is white" says is true if, and only if, snow is white (in a normal context of use) does not seem to be in need of explanation. Moreover, it hardly allows the truth operator to earn a respectful position in language. If sentences as '"snow is white" is true' were the only (or the favoured) contexts in which the truth operator appeared, then the redundantist conclusion would be hard to resist: that everything that can be done through a truth operator can be done without it. Fortunately, the truth operator has a task to accomplish and it cannot be dispensed with. The contents of sentences as "What Victoria says is true", "Everything the Pope says is true", "The Theory of Relativity is true", etc. essentially involve the truth predicate. Let us call these sentences and the like "blind truth ascriptions", because the speaker predicates truth of a content that the sentence does not display. In sentences as "What Victoria says is true" the truth predicate might be contextually eliminated only if what Victoria says is known by the speaker and audience, otherwise the sentence is used to make an assertion in which the truth predicate cannot be suppressed. In the other cases, either because the content of what is said is indefinite or because it is strictly infinite, the truth operator becomes necessary. Prosentential theories of truth, contrary to other positions of the deflationist type, focus on the analysis of blind truth ascriptions. And what does it mean that what Victoria says is true? Any of a potentially infinite list of propositions. That if Victoria says that snow is white, snow is white, that if Victoria says that elephants can fly, elephants can fly, that if Victoria says that war is always unwelcome, war is always unwelcome, and in general that if Victoria says that p, then p. Notice that one thing is whether and when are we justified in saying the there is no reason for war, and so when it is true that war is always unwelcome, and very different thing is what a speaker means by her sentence "what Victoria says is true" when Victoria has said that war is always unwelcome. In the first case we are looking for criteria and in the second we are determining the logical role.

To properly understand the logical role of the truth operator one has to ask what is the content of a sentence as "What Victoria says is true" (uttered in an appropriate

context). The content, or the proposition, expressed by a speaker who utters a sentence is what is said by her in the context at issue. Suppose that at time t_0 Victoria utters

(1)   War is always unwelcome,

and at time t_1 she utters

(2)   Mum does not like Mondays.

After (1) I report

(3)   What Victoria says is true,

and after (2) I add

(4)   What Victoria says is true.

The basic intuition under the prosentential account is that, appearances notwithstanding, the contents of (3) and (4) diverge. And this for several reasons, one of them being that the proposition that satisfies the description "what Victoria says" is not the same in both cases. One might ask what, isolated of any context, a sentence as "What Victoria says is true" says, i.e., what type of situation would make it true. The answer cannot be very precise, and not only because of the definite description. Compare (4) with

(5)   The last President of the United States does not appreciate Japanese food.

In (5) there also is a definite description but if we needed it we might depict a situation in which a property were predicated of an individual. This cannot happen with (4). Although formally we might say that the content of (4) is that a proposition expressed by Victoria and identified in the context is true, this is compatible with infinitely many situations type. The reason is that a sentence as (4) is in fact a generalisation from propositions of a certain structure and its role cannot be to describe a particular state of affairs.

According to prosententialism, two are the basic roles of ascriptions of truth. Either they can be used for making a general assertion, as in "The Theory of Relativity is true", in which in only one sentence we encode an information that is strictly

infinite, or else they can be use to inherit the content of a sentence distinct from itself. Sentences (3) and (4) are examples of this second use. The content of (3) in the situation depicted in the example is [War is always unwelcome] and that of (4) is [Mum does not like Mondays].

That the same linguistic expression expresses different contents depending on context is no longer something new. It is exactly what happens with indexicals. Pronouns and demonstratives keep constant their linguistic meaning while vary their content, their contribution to the proposition expressed, as the context vary. Because they are not ambiguous and linguistic meaning remain from a use to the following, they can be learned and taught to others. But any competent speaker knows that the reference of a demonstrative depends of the *demonstratum* in a particular occasion of use, and that a demonstration is needed in order to fix it. With pure indexicals there is no need of a demonstration, but the referent depends on prominent features of the situation: the speaker, the location, the time of utterance, etc.

If we follow too close our first thoughts about what a pronoun is we would say that a pronoun is an expression that mark the position that might be occupied by a noun (or of any other kind of singular term). A pronoun is usually interpreted as the counterpart in natural languages of the bound nominal variables of first order *calculi*, and so as serving to two basic functions, either generalisation or anaphoric reference. Nevertheless, an English pronoun as "it", or a demonstrative as "this", performs these two functions even related to categories that are not that of singular terms. And also in these roles can be quantified over. Consider the following examples:

(6)   John loves Mary but she does not know it

(7)   Victoria said that the film was touching and Joan denies it

(8)   This is what I disapprove in George, his lack of mercy

where the two instances of "it" and the demonstrative "this" do not stand for singular terms. Of course, if we expand (6)-(8) to avoid the anaphoric references, the expressions placed in their locations will have the status of proper names from a grammatical point of view. But from a logical point of view, "it" in (6) and (7) refer to a complete proposition, and "this" in (8) points to an adjective phrase.

Grover, Camp and Belnap introduced the term "proform" (Grover 1992: 87) to cover the whole range of pronouns, proadjectives, proadverbs and prosentences. That most proforms have in natural languages the syntactic category of pronouns is a historic accident with no philosophical relevance, although it has had enormous philosophical consequences. Atomic proforms that are not pronouns are scarce, then natural languages have to supply with complex proforms. Adverbs "yes" and "no" are the exception. But consider

(9)   Did you pick up your daughter from School? Yes

(10) Are you going to attend the Seminar? No.

In (9), and everywhere else, "yes" has the import of a complete sentence, in this case "I picked my daughter up from School" and it is a truth bearer because its content is a proposition. And the same can be said about "no". In (10) "no" has as content a negative proposition: [I am not going to attend the Seminar]. For this reason, although they occupy adverbial positions, they are logically prosentences. A prosentence is a propositional variable, it is something capable of inheriting any propositional content depending on context, <u>it is a function from contexts to truth values</u>.

To have access to a repertoire of proforms wide enough is a useful feature of a language, and this also applies to prosentences. Proforms are sometimes dispensable, but not in every circumstance. When they are used to make general assertions or to encode a big or even infinite amount of information, language cannot do without them. But, as Ramsey himself acknowledges (1991: 10), the only single prosentences in natural languages are "yes" and "no". Fortunately, language has mechanisms of building complex prosentences. Among them are "It is a fact", "It is true", "Thus is as things are", "You are right", and their negations. That both "This is a fact" and "This is true" are complex prosentences explains the appealing triviality of correspondence theories of truth.

The main thesis of the prosentential account of truth is that the truth predicate "is true" is a dummy predicate that allows construing complex prosentences. Literally speaking, sentences as (4), "What Victoria says is true", or just "it is true", does not express proposition unless used in appropriate context to refer to a prominent proposition. They do not posses a content any more that "it" or "you" have in isolation.

The description "What Victoria says" has the grammatical status of a singular term. In the situation depicted in (1) it is satisfied by a proposition, to wit, [War is always unwelcome] that as such belongs to a different logical category. Neither a description as the one mentioned nor any other single proform are, for grammatical reasons, suitable entities to occupy a sentential position. Let's reconsider Victoria's utterance at time t_0,

(1)   War is always unwelcome.

To endorse her opinion, it would not be enough to replay "What Victoria says", nor "it" or "this", but rather (3) or a contextually equivalent expression as

(11) This is true.

From a logical point of view, this would not make any difference. If English allowed indexicals or descriptions to also play sentential roles, the predicate "is true" would add nothing to the content of the pronoun or to the denotation of the description. In this sense, the dummy truth predicate is a way of restoring grammaticality. This idea of truth as a way to restore sentencehood has been defended by many authors. A contemporary one is Paul Horwich who expressed it saying that truth predicate "acts simply as a *de-nominalizor*" (Horwich 1990, p. 5)

One of the consequences of an analysis of this kind is that truth is no longer considered as a first order property. Logicians define first order properties as properties of objects, although neither "property" nor "object" keep their usual meanings in logicians' mouths. The paradigm of the notion of first order predicate is a predicate that expresses observable qualities, a predicate that can be used in descriptions of the world at the lowest level. Not every first order predicate is nevertheless of this kind, predicates of abstract entities are not observable qualities. But for the purposes of the present topic it is enough keeping in mind the paradigmatic cases. Once acknowledged that "is true" is a dummy predicate that represents a formal operation, to wit, the operation of converting singular terms that designate propositions into whole sentences, the question of what kind of property is truth loses its sense. According to the prosentential view, "is true" converts designations of propositions with the grammatical status of singular terms into expressions of propositions with the grammatical status of sentences. The contrast between designations *versus* expressions

of propositions is due to the Kneales and has been also used by Christopher Williams[2]. Thus the task performed by the truth predicate is not to express a property of things and so cannot be found in the world.

Fortunately, the appropriate interpretation of this apparently debatable thesis does not take us from the realm of the philosophy of logic. That truth is not a property among others in the world does not imply any kind of relativism. Nor it entails a subjectivist or idealist position that would make truth dependent on the subject. Truth is not a property of the world because it is not a property *tout court*. It is a second order logical operator like existence and identity. Identity and existence might seem not to be of the same category, but they are. In predicate calculus, existence is a second or order function and identity a first order binary relation, but the more promising and puzzle-eliminatory interpretation of the identity operator interprets it as a n-order (n > 1) function on concepts[3], like quantifiers. I will come back to this interpretation in section 5 below.

3.1 Propositions expressed and designated

Propositions can be pointed to by means of diverse kind of terms. Paradigmatically, phrases with the role of pointing to something else have the grammatical category of singular terms. Let us call this kind of phrases "designations".

Some designations display somehow the designated entity and we call them "exhibitive" and others merely describe their target and we call them "blind". The paradigmatic way of building exhibitive designations in written language consists in the use of inverted commas around an expression. Thus, "Gandalf" is a designation of a name that shows the designated entity, in this case the name of the Grey Pilgrim. From a grammatical perspective, it is common to assume that the compound of an expression together with a pair of inverted commas appropriately placed has the category of a singular term. This claim is not completely true, because in cases of open quotation, the quoted material does not need to have this status (Recanati, 2000, pp. 181-191). But in the context of the present discussion these troubles with open quotations are irrelevant. So, let us continue. Even in cases in which the demonstrated

entity is a whole proposition, the compound of it and the mention device converts the whole in a singular term. Thus, while (12)

(12) The cat is on the mat

expresses a proposition (uttered in a appropriate situation), (13)

(13) "The cat is on the mat",

designates a either sentence or a proposition. And (14)

(14) That the cat is on the mat,

designates a proposition.

The way in which (13) and (14) designate the proposition at issue is exhibitive, for it is possible to recover the exhibited entity from the designation itself. But consider that Victoria utters (12), then

(15) What Victoria says,

designates in an appropriate context the proposition expressed by (12) or the sentence (12) itself, depending on the favoured sense of "say" there. (15) is a blind designation of a proposition while (13) and (14) are exhibitive. In all cases the content is a proposition, from a logical point of view.

A prosentential account of truth defends that the difference between (13), (14) and (15), on the one hand, and (16), (17) and (18), on the other,

(16) "The cat is on the mat" is true

(17) It is true that the cat is on the mat

(18) What Victoria says is true,

is one of grammatical category. In some sense, the contents of (13), (14) and (15), on the one hand, and (16), (17) and (18), on the other, are the same, to wit, the proposition [The cat is on the mat]. This proposition is designated by (13), (14) and (15) and expressed by (12), (16), (17) and (18).

What is the role of "is true" in (16), (17) and (18)? According to this account, to restore the sentential category of designations like (13), (14) and (15), among other things. In other words, to construe expressions of propositions out of designations of them, but the content of (12) and (16) is the same. This is the intuition under many deflationary accounts of truth. In particular it is the main thesis of the so-called Redundancy theory commonly attributed to Ramsey. But, in spite of this intuition, the truth predicate is not redundant, nor even in the general account we are explaining here. And the reason is that the proposition expressed by a truth sentence is not always recoverable.

A sentence like (18) can be used to express any proposition whatsoever providing that the proposition at issue had been said by Victoria. In the previous example the content of (18) was [the cat is on the mat]. But if Victoria says (2)

(2)   Mum does not like Mondays,

and then somebody replays with (18), the content of this utterance of (18) would be [Victoria's mum does not like Mondays].

The moral to draw from the previous paragraphs is that truth adscriptions are apt to inherit propositional contents to which they contextually refer. The difference between exhibitive and blind truth adscriptions is that in the former but not in the latter the inherited proposition is displayed in the sentential heir. This is the sense in which truth adscriptions work like pro-nouns. They are not pro-*nouns* thou, because the grammatical category acting as their antecedent must be a complete sentence. By analogy with the way in which pro-nouns work, some philosophers have called truth adscriptions pro-*sentences*. These prosentences express propositions that are designated by mean of other devices, as for instance, definite descriptions, demonstratives, quotation marks, etc.

3.2 The logical form of truth adscriptions. Truth as a second order operator

The main lines of prosententialism, (i) the idea that the truth predicate is a dummy predicate, i.e., a contentless predicate-like expression used to restore grammaticality

when a sentence is required for grammatical reasons, and (ii) that truth adscriptions are natural language counterparts of the formal propositional variables, are shared by all philosophers that have explicitly defended this view. Nevertheless their proposals are not coincident in all their details.

One source of divergency arises from the fact that a theory of truth, as any other philosophically interesting proposal, cannot be builded as an independent piece of knowledge. It mainatins points of contact with other subtantial views in other realms of thouht, in this case with a particular account of quantifiers, of the status of propositions and of abstract entities in general, and also with the correct interpretation of other logical constants like identity.

The deepest prosentential proposal so far put into the fore is the one developed by Christopher Williams in (1976) and (1992). To him is owed the thesis that the truth predicate works as a second order operator. It does not appear as such in any other proposal although it perfectly dovetails the prosentential intuition and helps to explain the force of the redundancy and correpondency feelings.

To completely understand the logical role of the truth predicate a further explanation is required. If, as it has been said, a truth adscriptian is a pro-form that inherit the content of a sentence prominent in the context, the content inherited by the prosentence has to appear at least twice in the relevant situation. This is the hard core of the correspondentist intuition. When exhibitive sentences like (16) and (17) are considered as the paradigm of truth ascritions, this fact is obscured. Then, in (16)

(16) "The cat is on the mat" is true,

it would seem that just one proposition expressed once, that the cat is on the mat, is been taken into account and that, of it, somebody predicates truth, a monary first order predicate. This view is misleading.

Things become clearer when the class of paradigmatic examples changes and instead of Tarski´s style sentences one proposes examples like (18),

(18) What Victoria says is true.

This kind of blind adscriptions are the paradigmatic cases considered by prosententialist. Using them instead of exhibitive is a mark, I would say, of a serious

stance on the meaning of truth. Both Ramsey and Grover, as much as Prior, Strawson and Williams, focus their accounts on adscriptions of the blind case. And all of them analize (18) as

(19) Victoria says that p and p,

or alternatively,

(20) For all p, Victoria says that p and p.

This analysis appears, for instance, in Williams (1995: p. 152). Grover analizes cases like (18) exlicitly endorsing Ramsey's interpretation (Grover pp.71 ff). And both Williams and Grover support Ramsey's explanation of the logical reading of (19) and (20). Ramsey already foresaw an objection against his position that has been profusedly addressed against the prosentential analysis. The objection goes like this: (19) and (20) cannot explain the meaning of the truth predicate because they are ill-formed. Conjunction (and the rest of sentential connectives) are functions of truth and so their arguments have to be truth bearers. In (19) and (20) a variable occupies the place of the second argument, but variables are grammatically singular terms. To restore grammaticality in (19) and (20) we should add the predicate "is true" at the end, what will render this analysis circular. Thus, to be grammatical (19) and (20) would need conversion into

(19') Victoria says that p and p is true, and

(20') For all p, Victoria says that p and p is true.

Ramsey answered this self-objection remindig the reader that p is a sentential variable and that as such it already contains a verb. A similar question arises when we try to translate (19) into common English. We would have

(19'') Victoria says it [Mum does not like Mondays] and it,

which obviously is not grammatically well-formed. The reason, as has been explained before and constitutes one of the main tenets of prosententialism, is that natural languages almost completely lack single prosentences and this role has to be performed by complex of pro-nouns and prosentential-formers like "is true".

Ramsey expresses this objection and his answer as follows: "We can the say that a belief is true if it is a belief that p, and p. This definition sounds odd because we do not at first realize that 'p' is a variable *sentence* and so should be regarded as containing a verb; "and p" sounds nonsense because it seems to have no verbe and we are apt to supply a verb such as "is true" which would of course make nonsense of our definition by apparently reintroducing what was to be defined." (1991, pp. 9 -10)

A further objection against formalizations like (19) and (20) relies on the widespread view that bound variables commit our discurse to the existence of their values as objects. Quine famously championed this thesis but it had supporters before and after him. The thesis itself is not justified, at least there are no serious reasons to maintain that only name-like expressions can be generalized by means of quantifiers. Nevertheless, this is not the place to fight this battle. All that is important is to know that Ramsey does not support the objectual interpretation of quantifiers and so the Quinean criticism does not affect his theory. Grover also rejects the objectual interpretation and in her case she favours the substitutional reading of formulae like (20) and so does any other follower of prosententialism. Ramsey's account of quantifiers falls out from the scope of this chapter, but it is enough to say that he rejects that general sentences express propositions, because they do not represent. Generalizations are better seen as maps, and quantifiers are just higher level intralinguistic oparations that make no claim about how the world is.

Propositional variables in (19) and (20) play two kind of roles: (i) they mark the place of a sentence, of any sentence, and thus allow generalization and (ii) the second occurrence anaphorically refers to the content of the first. In this they are as any other variable and play some of the classical roles attributed to pronouns in natural languages (apart from direct reference). Christopher Williams has defended that in natural languages identity is an operator that forms n-1-adic predicables out from n-adic predicables, i.e., that serves to eliminate an "argument" place. Identity is the same operation as reflexivity. Reflexive verbs are intransitive verbs, and so monadic predicates, constructed from transitive verbs that typically are diadic predicates.

The transitition between (21) and (22),

(21) Fran shaves Fran, to

(22) Fran shaves himself,

is explained as the result of introducing in (22) an operator, the identity/reflexivity operator, that converts "shaves", a diadic first order predicate, into "shaves himself", a complex monadic predicate. The same operation takes place in the transition between (23) and (24),

(23) Fran is Maria's husband and Fran is Joan's father

(24) Fran is Maria's husband and Joan's father.

In (24) the predicable is the complex one "being Maria's husband and Joan's father" that can be paraphrased as "the same person is Maria's husband and Joan's father" predicated of Fran in wich the identity operator becomes aparent. Identity is thus a second order operator which arguments are predicables, an operator with the same status of quantifiers.

Williams's version of the prosentential account makes of the truth predicate an instance of the identity operator in wich the variables involved are propositional variables. In (19),

(19) Victoria says that p and p,

the propositional variable appears twice. An instance of (19) might be

(25) Victorias says that war is always unwellcome and war is always unwellcome,

in which there is diadic a predicable,

(26) "Victoria says that… and ---",

in which the two argument places has been saturated by the same proposition. The transition between (25) and (27),

(27) Victorias says that war is always unwellcome and it is true,

is the same as the one occurred between (23) and (24). The only difference is that in the latter the argument-place that has been canceled out was nominal, occupied this time by a name "Fran", while in (27) the canceled argument-place was propositional. According

to Williams, the complex predicable presents in (27), and also in (18) and in any other truth adscription with the required modications, is something like

(28) The same proposition p, (p is said by Victoria and p) …,

predicated in this case of the proposition [war is always unwellcome].

That the truth predicate is a second order operator was not explicitly endorsed by Ramsey, but Williams' proposal, that also has Prior as a forerunner, is the natural development of Ramsey's intuition.

4. Big points of prosententialism.

A symptom that a particular theory takes its object right usually is that difficulties that were previously considered as unsurmontable become tame or even vanish. This is what the Fregean account of quantifiers made with the paradoxes of existence, or the Russellian theory of descriptions made with the paradoxes derived of the use of non-denoting names, to mention just two classical examples.

The notion of truth has its own paradox, the paradox of the Liar, that has deserved enormous attention, and even the paralysing diagnosis that the truth predicate cannot be defined in natural languages (Tarski 1935, p.152). One of the big points of the prosentential account is that it shows why the Liar sentence is so puzzling and offers an elegant way out that smoothly follows from the core of the theory.

To Ramsey is owed the distinction between logical and semantic paradoxes (Ramsey, The foundation of mathematics, 1925, 1990, p. 183). To the firsts he offers his modifications to the Russellian theory of types. To the seconds he endorses Peano's opinion to the extent that they are irrelevant to mathematics. While Peano pushes them to the realm of linguistic, Ramsey places them in epistemology and relates them to "faulty ideas concerning thought and language" (Ramsey, *op. cit.*, p. 184). But he never mentions the paradox of the liar when he talks of truth, neither in (1927) nor in (1991).

On the other hand, an appropriate theory should explain the success of its rivals and being able to accommodate both commonsensical and theoretically sophiscated the

intuitions widely related to the topic it is concerned with. To the notion of truth there are several feelings difficult to resist. One is that the truth predicate is redundant (at least in some uses), other is that truth is correspondence with facts. The prosentential theory of truth has also an answer for these intuitions.

In what follows, we will see how the prosentential account explain the Liar sentence (section 4.1) and how it accommodates the reduntantist and correspondentist challenges (4.2).

4.1 The Liar paradox

The paradigmatic puzzle attached to the analysis of truth is the Liar paradox. The Liar sentence has the form (29),

(29) This sentence is not true,

the sentence seems to predicate of itself its own falsehood and, in a bivalence setting, it will be true if, and only if, is false and it will be false if, and only if, it is true. So the story goes.

What has the prosententialist to say to this piece of philosophical common sense? First of all, it is worthy to remember the Austinian *dictum*, "it takes two to make a truth" (1950, p.154, n. 13). Of this, the believer in the seriousness of the paradox is well aware. The sentence says something of itself. There are two entities, the saying sentence and the sentence object of the first, but they are the same. Putting aside essential questions about how language works, such as if sentences *say* something as opposed to being used by somebody in context to say something, let us go to the core of the matter. Some attempts to solve semantic paradoxes have blamed reflexivity as responsible for the troubles. In the particular case of the Liar sentence reflexivity has a responsibility but the prosentential account does not reject reflexivity as such. The prosententialist treatment has to do with the fact that ascriptions of truth are pro-forms and as such devoid of content.

Let us analyze the issue in two steps. First there is the question of truth bearers. In Ramsey's account propositions are the primary bearers of truth, not sentences. Sentences are true or false only derivatively. Then, related to the Liar sentence, one has to ask what the sentence says and to determine this a context of use needs to be provided. To ask whether, (29)

(29) This sentence is not true,

out of any context, is true or not is like to ask whether

(30) I feel tired

is true or not out of any context. Truth and falsehood are predicated of what is said by a sentence in a particular situation of use, they are predicated of a content. The content of (30) is something different from the sentence itself, it is another kind of entity, and it depends on who utters the sentence, and when, among other things. The personal pronoun needs a context to provide a content and the content is in this case the speaker. But this is an old and well-known story.

Prosententialism extends the standard treatment of pronouns to other kind of expressions, and affirms that adcriptions of truth act as pro-sentences, that is, all-purpose sentential variables. If it is now obvious that (30), as it stands, is neither true nor false, then the same has to be said of (29). To determine the truth or falsehood of its content, it has to be previously identified. Pro-sentences inherits the content of substantive sentences to which they refer. The grammatical subject of (29), "This sentence", has to refer to a salient sentence in the context, and although a singular term from a gramatical point of view it has a proposition as its content. When this proposition is not available what we have is an empty sentence with no content and thus with no truth value. Exactly the same that happens related to (30) if, for instance, we see it written in a blackboard. A proform can inherit other expressions's contents and for this very reason they do not possess one by themselves. They only indicate a grammatical category.

A truth ascription indicates the grammatical category of sentences. (18),

(18) What Victoria says is true,

is a complex sentential variable that endorses the content referred to by its subject, in this case, what Victoria says. If the content of the Victoria's sentence is something like [Victoria's mum does not like Mondays], the content of (18) will be that Victoria's mum does not like Mondays and it will be true if, and only if, Victoria's mum does not like Mondays. If the content of Victoria's sentence is something like [War is always unwelcome], the content of (18) will be that war is always unwelcome, and it will be true if and only if war is always unwelcome. No point then in asking for the truth value of (18) *tout court*.

And now for the second step. If truth ascriptions act as propositional variables from a logical point of view, their standard translation to an artificial language will be a propositional variable, single or complex depending on the particular calculus. If it is the propositional calculus, the standard translation will be a single propositional variable, as p, q, etc. and if it is the predicate calculus, it will depend on the inner structure of the proposition itself, it might be $P(a)$, $P(b) \lor P(a)$, $\forall x\ (P(x) \rightarrow Q\ (x))$, etc. Being this so, the standard translation of (29) ,

(29) This sentence is not true,

to, say, the propositional culculus will be " $\neg p$ ". And to ask about its truth value will be as pointless as to ask about the truth value of $\neg p$.

The prosentential theory of truth treats the paradox of the Liar as what it is, a linguistic muddle, and show why it is not a real problem for a theory of truth. Ramsey does not even consider it worth of treatment although he offers clues of what would have been his position putting the blame of them on the fault of our understanding of linguistic and epistemology (Ramsey, 1925, 1990, p. 184).

4.2 The redundatist and correspondentist intuitions

It is difficult to deny that there is a grain of truth in the reduntatist and correspondentist intuitions. In this sense, one cannot simply let them go without a word. In fact, the prosentential account does not reject the background intuitions that support redundancy and correspondence as analyisis of truth. On the contrary, it shows how they cacht

things right (and why there is no need to go too far). As far as Ramsey is concern, he saw himself as a defender of a mild version of the correspondece theory while the history of philosophy has blessed (or condemned) him as the father of redundantism.

Let us begin with the redundantist view. It is a historical curiosity that the label "The Redundancy Theory of Truth" had sailed troughout the XX century stuck to the name of Ramsey. Allegedly, redundantists defend that the truth predicate is eliminable from a language without loss of expresive power. If this were so, one might wonder how so a useless predicate has managed to survive in indoeuropean languages (and in the rest, I supose).

The crux of the matter is to answer the following question: Is the truth predicate eliminable? And, according to prosentialism, Ramsey included, the answer is: it is as far as proforms can be. The question of whether or not the truth predicate can be eliminated is analogous to the question of whether or not pro-nouns can be eliminated. Pro-nouns, we have learnt from tradition, are in the place of nouns. So, it might seem that words of the kind are, in fact, pro-forms of laziness, i.e., we use them for stylistic reasons and sometimes not to repeat again a name, an adjective, a sentence, etc. already clear by the context. Now we know that this is not so. Anaphoric uses of pro-forms cannot be performed by other expressions of the same grammatical category (in the wide sense). Names, adjectives and ordinary sentences are not suitable for generalisation nor for anaphora. The truth predicate helps to build complex pro-sentences, as we have been maintaining here, and as complex expressions they are not mechanisms of direct reference. This fact might induce to think that the analogy with pro-nouns is not as close as the prosentential account would like. Nevertheless, what the prosententialist affirms is that pro-sentences are ones among proforms, and that the truth predicate indicates the concurrence of a complex pro-sentence. And to directly refer is not a general mark of pro-forms. To refer is something that names do, and this job is adopted by pro-nouns. But it is not the task of adjectives, and so not adopted by pro-adjectives, nor of sentences, and so not adopted by pro-sentences.

The truth predicate is eliminable from (31) and (32),

(31) "the Snow is white" is true,

(32) That Spain is a Kingdom is true

although it is not from (33) or (34),

(33) Everything the Pope says is true

(34) The Big Bang theory is true.

Thus, it is eliminable from exhibitive truth ascriptions but not from blind ones. Christopher Williams (1995) has an illuminating explanation of why in Tarski-like sentences the truth predicate seems to be redundant. Quotations marks have in some contexts the effect of converting the expression that lies in-between plus the marks themselves into a singular term from a grammatical point of view. The same role fulfils the particle "that" placed in front of a sentence, it renders the whole into a term. On the other hand, "is true" is a sentence-builder. If what is required to guarantee grammaticality is a sentence-like expression, the dummy predicate "is true" can be used to restore the category of being a sentence. This is what happens in (19"). Borrowing set theoretical terminology one might say that truth is the converse of quotation marks and "that". Putting both operations together neutralises them. But this not makes any of them dispensable. In Williams' words:

> If you regard "is true" and "that" as operators, the one is seen to be the converse of the other. They are related as "the double of" is related to "the half of". It is easy t see what happens if you apply them in succession to a string of words. We are not surprised if we think of a number, say seven, attach to it the phrase "the double of", and to the result "the double of seven", attach the phrase "the half of", only to find that what we have at the ende of all tis, "the half of the double of seven", is nothing else than what we first thought of, namely, seven. Nor should we be surprised if, when we use the word "that" to convert "Snow is white" into its own designation, "that snow is white", and the append the words "is true", we finish with something that is worth no more that the sentence we began with. Christopher Williams (1995: p. 148)

What about Ramsey's historical position? It leaves no room for doubt. As we have already seen in section 2 above, Ramsey acknowledges that truth expressions are sometimes used for emphasis or stylistic reasons, i.e, that in some cases truth expressions do not perform an essential role. But he denies that this is always so, and

particularly it is not so when the proposition of which truth is affirmed is merely described and not explicitly given (Ramsey 1927, 1990, pp. 38-39). In these cases, he says, "we get statements from which *we cannot in ordinary language eliminate the words "true" and "false""* (my emphasis, *loc. cit.*, p. 39).

It is to be expected that after this few indications the connexion between Ramsey and the redundancy theory of truth cuts off. Ramsey never argued for the eliminability of the truth predicate, and the same can be said of any other prosententialist for whom truth is a valuable maker of (complex) propositional variables.

And now let us go for the correspondentist intuition. Contrary to what happends with the redundantis intuition, Ramsey always considered himself as a proponent of a correspondence theory of truth. Thus, it would have been historically more justifiable to have attached the name of Ramsey to the fate of correspondentism instead of to that of redundantism. In "The nature of truth" (1991, p. 11 and ff.) he guesses that his position will be interpreted as a sort of correspondence theory. In the case that this were so, he warns against the topical criticisms usually addressed to correspondence. His view, he accepts, might be interpreted as a sort of correspondence theory altough without the problems derived of defining truth directly in terms of a relation between two poles. Being aware of the philosophical difficulties with which the correspondence theory of truth is fraught, Ramsey says: "But the prospect of these difficulties need not distress us or lead us to suppse that we are on a wrong track in adopting what is, in a vague sense, a correspondence theory of truth. For we have given a clear definition od truth which escapes all these difficulties by not appealing to a notion of correspondence at all." (1991, pp. 11-12). An explicit endorsement of this correspondence theory "in a vague sense" is made in the introduction to (1991, p. 3) where he says: "Truth is an attribute of opinions, statements, or propositions; what exactly it means we shall discuss later, but in a preliminary way we can explain it is accordance with fact".

Being faithful to the common usage of words, no reasonable proposal about the meaning of "is true" can despise the feeling that the sentence "Snow is white" expresses (in appropiate contexts) a true proposition because snow is, in fact, white. This is basically the correspondentist intuition. And, reasonable as it is, it should be accounted for by any acceptable theory of truth. The prosential account does not reject the feeling but rather incorporates it and offers a detailed explanation of its force

from a logical point of view. It is also a historical curiosity that the first time that the word "prosentence" appeared in print was in Prior´s article "Correspondence Theories of Truth" written for the *Encyclopaedia of Philosophy*, edited by Paul Edwards in 1967[4]. If truth is a second order predicate which is an instance of the identity operator, the logical role of truth is to mark the repetition of a propositional argument, in Williams' sophisticated version. In Grover's explanation the truth predicate helps to construe prosentences that inherit other propositions' content. In both cases, and so in any prosentential stance, "it takes two to make a truth" using the happy expression of Austin (1950, p. 154, n. 13), a renown correspondentist. If a prosentence, i.e, a propositional variable, does not possess in itself a content but, refering to something (a sentence, a proposition, a fact, a belief, etc) prominent by the context or else (in the quantified case) it has instances that are genuine propositions, truth adscritions require two items to be wellformed. The first item is a genuine proposition endorsed, considered o merely entertained by somebody, the second item is the level of the prosentence in which the genuine proposition is refered to by means of a proform that in the appropiate context inherits its content. This is the sense in which the correspondentist intuition is assumed by the prosentential account.

What is inaccurate in some versions of the correspondence theory is the logical category given to the truth operator. The grammatical predicate "is true" does not express a property of things, i.e., it is not a first order predicate, and so Tarskian sentences do not have a subject-predicate logical form. The kind of thing that we do when we say that the table in front of me is made of wood is not the kind of thing that we do when we say that the Big Bang theory is true. In prosentential theories the truth predicate is a logical operator, a second or higher order operator, which arguments are logical entities: propositions or predicates. Thus it might be counted among the logical constants: connectives, quantifiers, identity (in Williams's account), being all second or higher order intralinguistic functions.

Neither is the truth predicate a first order binary relation between language (or mind) and the world, as it is typically sustained by many correspondentist. The history of philosophy has displayed the multiple difficulties tied to the task of offering a worked out treatment of the relation itself and its two relata. To these difficulties refers Ramsey in the text quoted above to put apart his definiton from the set of correspondence theories. Fortunately, there is no need to answer these difficulties, because they vanish

as soon as the logical category of the truth predicate is recognized, and with it a logically correct account of how it works is provided.

Let us end this section with two Ramsey's texts about correspondence, both from "Appendix to Chapter 1" (1991):

> Indeed of the three leading types of theory, the Correspondence Theory, the Coherence Theory and Pragmatism, only the first agrees with us on the main issue that a belief that *A* is *B* is true if and only if *A* is *B*, and our view belongs undoubtedly to the class of correspondece theories, although we have not yet used the word correspondence. (*op. cit*. p. 18)

and in the next page he says

> [T]his talk of correspondence, though legitimate and convenient for some purposes, gives, in my opinion, not an analysis of truth but a cumbrous periphrasis, which is misleading to take for an analysis. To believe truly is to believe that *p* and *p*, and there is no need [but many disadvantages in restating] to recast this definition in terms of correspondence… (*op. cit*. p.19)

5. Conclusion.

Ramsey's treatment of truth has been adopted several times during the XX century, independently of Ramsey's work. The paper in which Ramsey introduces the term "prosentence" was not published until 1991 and his (1927) "Facts and Propositions" has been interpreted as a defense of a redundancy theory of truth. But prosententialism has been rescued by the brightest minds of the last decades and explicitly developed and endorsed by Grover, Camp and Belnap and also by Williams. Recognisable prosententialist accounts are found in Prior and Strawson and with more or less degree of accurateness has been pointing at by Tarski and Austin, and now by Horwich, not to mention Aristotle.

The view is not completely worked out in Ramsey's writings but all that Ramsey says about the nature of truth perfectly dovetails any prosentential setting.

To conclude, I would like to remak again that Ramsey never dismissed the truth predicate as redundant. On the contrary, he swa himself as defender of the corrspondentist intuition and a follower of Aristotle. He offered a correct account of how the predicate "is true" works in natural languages and draw its connection with the propositional variables of artifitial calculi. He also introduced for the first time the word "pro-sentence" and analysed the truth predicate taking profit of the analogy with pronouns. His position is thus a prosentential account, only introduced in the philosophical arena around 1976, independently of Ramsey's writings and fifty years after that it were handled by the genius of Cambridge.

Bibliography

Austin, J. (1950), "Truth". In Blackburn, Simon and Simmons, Keith (eds.): *Truth*. Oxford, Oxford University Press, 1999, pp. 149- 162.

Mellor, D.H. (ed) (1990): *Philosophical Papers. F. P. Ramsey*. Cambridge, Cambridge University Press.

Ramsey, F. (1925): "The Foundations of Mathematics". In Mellor (1990), pp. 164-224

Ramsey, F. (1927): "Facts and Propositions". In Mellor (ed.) (1990), pp. 34- 51

Ramsey (1991): "The Nature of Truth". In Rescher and Majer (eds.) (1991), pp. 8-20)

Recanati, F. (2000), *Oratio Obliqua, Oratio Recta. An Essay on Metarepresentation*. Cambridge, Mass., London, England, The MIT Press.

Rescher, N. and Majer, U. (eds.) (1991): *On Truth. Original Manuscript Materials 81927-1929) from the Ramsey Collection at the University of Pittsburgh*. Dordrech, Kluwer Academic Publishers.

Sahling, N-E. (1990): *The Philosophy of F. P. Ramsey*. Cambridge, Cambridge University Press.

Tarski, A. (1935): The concept of truth in formalized languages". In *Logic, Semantics, Metamathematics*, Indianapolis, Hackett Publishing Company, 1983.

Williams, C. (1995): "The Prosentential Theory of Truth". *Reports on Philosophy*, nº 15, pp.147-154

---

[1] Russell: "The Nature of Truth and Falsehood" (1910, *Logical and Philosophical Papers 1909-13*. London and New York, Routledge, 1992, pp. 115-124.)

[2] William and Martha Kneale: The Development of Logic, Clarendon Press, Oxford, 1962, pp. 584-6. Also used by C. Williams, in "The prosentential theory of truth"

[3] See C. Williams: What is Identity. John Austin: Ensayos Filosóficos, Verdad, 1950.

[4] P.Edwards (ed.), The Encyclopaedia of Philosophy, New York, London: Collier Macmillan Publishers, 1967, vol.2, p. 229. The refernce appears in Williams (1995), p. 150 and n. 6.