

Deflationism about Reference

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Abstract

This work is an attempt to explore the concept of reference in light of the philosophical trend called *deflationism*. Throughout this thesis, I will understand reference as a relation between words and objects (also called *designation*). My aim is to defend a deflationist view about reference as opposed to the traditional inflationist view. The backbone of this thesis is the distinction between two questions about reference. The first one is the question: What is reference? I shall call this question *the "essentialist" question*, since it asks about the "nature" of reference. The second question concerns the metasemantics of names. It asks: How does it come that a name designates the object it does? I shall call this second question *the Platonic or metasemantic question*, since we can find its first famous formulation in Plato's *Cratylus*. The Platonic or metasemantic question is not a question about reference itself, but rather about how reference is fixed or, better, how words and parts of the world come to be connected (i.e. how such a connection is established).

I will motivate the move from an inflationist to a deflationist view about reference by showing that the inflationist conception of reference is challenged by the phenomenon of indeterminacy of reference. By contrast, indeterminacy of reference is not a problem for the deflationary conception of reference. Indeterminacy of reference is the claim that, for any singular term or predicate there are many objects which are all equally admissible candidates to be the referent of that expression. Note that indeterminacy is a phenomenon related to the Platonic or metasemantic question. A deflationist view about reference answers the "essentialist" question by deflating it, but it does not say anything in order to answer the Platonic or metasemantic question. To this end, a theory of names is needed. The best option for a deflationist might be a use theory of meaning, which includes a use theory of names. Since the use of words does not necessarily establish a one-one correspondence between words and objects, a deflationist view about reference is still compatible with indeterminacy of reference. In other words, while the phenomenon of indeterminacy of reference does not disappear, a deflationary view about reference (unlike an inflationist view) is not threatened by it .

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Contents

Introduction	7
1 The inflationary view	13
1.1 Inflationary theories of reference	14
1.1.1 Two questions about reference	14
1.1.2 Four models of linguistic reference	16
1.1.3 The nature of reference	22
1.2 Why inflationism does not work	25
1.2.1 Model-theoretic arguments	26
1.2.2 The challenge of the Problem-of-the-Many	31
2 The deflationist view	35
2.1 Deflationism about truth	37
2.1.1 Two core claims	37
2.1.2 Two deflationist approaches to truth	46
2.2 Deflationism about reference	51
2.2.1 Deflationist views about reference	52
2.2.2 Some ideas for a theory of names	60
3 Deflationism and indeterminacy of reference	65
3.1 An argument against CT	66
3.2 Field on indeterminacy of reference	69
3.3 Why CT is tenable	71
3.4 Replies to a possible objection	74
Conclusion	75
Bibliography	79

Introduction

This work is an attempt to explore the concept of reference in light of the philosophical trend called ‘deflationism’. I shall avoid a possible immediate misunderstanding by saying that I take reference as a relation between words and objects, which we may also call ‘designation’. Note that this is a philosophical notion of reference. The ordinary language notion of reference is rather a relation between a speaker, a word (or a sentence or a thought) and an object. For example, a speaker A may refer to object y with word w (or when she utters sentence S). I will not focus on this latter way of understanding the notion of reference, but my interest will only be in the former philosophical one.

My aim is to defend a deflationist view about reference as opposed to a traditional inflationist view. I shall call ‘inflationist’ any view about reference which tries to answer the question: What is reference? An inflationist view about reference, as I will understand it, holds that this question is a legitimate one and that reference is either definable in more basic terms or a primitive *correspondence* relation. By contrast, it is part of a deflationist view about reference, as I will understand it, that such a question is misleading, since it suggests that reference is «some baffling ingredient of nature» (see [Horwich, 1998b, p. 20], though Horwich uses this expression with respect to truth), which requires some metaphysical investigation in order to be fully understood.

The backbone of the next three chapters is the following distinction between two questions about reference. The first one is the question mentioned in the previous paragraph: What is reference? I shall call this question ‘the "essentialist" question’, since it asks about the "nature" of reference. In other words, the "essentialist" question is about the concept of reference and nothing else. The second question concerns the metasemantics of names. It asks: How does it come that a word designates the object it does? I shall call this second question ‘the Platonic’ or ‘metasemantic question’, since we can find its first famous formulation in Plato’s *Cratylus* (see sec. 1.1.1). The Platonic or metasemantic question is not a question about reference itself, but rather about how reference is fixed or how words and parts of the world come to be connected (i.e. how such a connection is established). The

Contents

distinction between these two questions is suggested by Horwich in [Horwich, 1998a] and by Putnam in [Putnam, 1980] and [Putnam, 1981] (see sec. 1.1.1), although none of these two authors make it explicit or make any important use of it.

I shall call a theory that addresses the "essentialist" question a 'theory of reference' or a 'theory of the concept of reference'. And I shall call a theory that addresses the Platonic or metasemantic question a 'theory of names' or a 'theory of how reference is fixed'.

A terminological remark is in order. Usually, in a philosophical context the expression 'fixing the reference of a word' means that we pick out an object and we say that the given word refers to that object. There seems to be a one-one connection between the word and the object it refers to. This is on the basis of the correspondentist intuition about the concept of reference. In the first chapter where I introduced some inflationist approaches to reference, I will use the expressions 'fixing the reference of a word', 'how reference is fixed' and similar locutions in the traditional meaning.

On the other hand, the expressions 'fixing the reference of a word', 'how reference is fixed' and similar locutions can be used in a much looser way. It is still suggested that a connection between a word and some part of the world is established. However, such connection need not be a one-one correspondence between a word and an object, but rather a loose link between a word and some "class" of objects. For example, the word 'rabbit' may be connected to rabbits, to detached rabbit parts *and* to manifestations of rabbithood. According to this second understanding, the expressions 'fixing the reference of a word' and 'how reference is fixed' has the same meaning as 'establishing a connection between a word and parts of the world' (I borrow this terminology from [Armour-Garb and Woodbridge, 2015], see sec. 2.2.2). This second understanding of the expressions 'fixing the reference of a word' and 'how reference is fixed' fits better the deflationist view about reference, since such a view drops any correspondentist intuition about reference, as we shall see in detail. This terminological remark will become important in sec. 2.2.2. I will keep using there expressions like 'fixing the reference of a word' and 'how reference is fixed', but one should bear in mind the intended meaning of these locutions.

I will now provide a rough overview of the structure of this work, followed by a more detailed description of each chapter.

I will motivate the move from an inflationist to a deflationist view about reference by showing that the traditional inflationist view is challenged by the phenomenon of indeterminacy of reference (or referential indeterminacy). In a nutshell, referential indeterminacy is the claim that, for any singular term or predicate, there are many

objects all of which are equally admissible candidates to be the referent of that word. This is so because nothing in how we use words determines which of these candidates we are referring to. Note that referential indeterminacy is a phenomenon concerning the Platonic or metasemantic question, i.e. it is a problem affecting the question how reference is fixed. On the other hand, an inflationist view about reference holds, at the very least, that reference is a correspondence relation with some metaphysical import.¹ Typically (but not necessarily), the inflationist takes a theory of names (i.e. a theory of how reference is fixed) and uses it to define this correspondence relation. For example, one may start with a causal theory of how reference is fixed and then define reference in terms of causation. However, given indeterminacy of reference, we cannot choose which object a given word refers to. Hence, words do not refer at all given the inflationist conception of reference. In other words, given the inflationist conception of reference, indeterminacy does not affect just how reference is fixed, but it becomes also a phenomenon affecting the concept of reference itself. Since it is rather counter-intuitive to say that words do not refer at all, it seems that we need to search for an alternative view about reference. I will suggest that the best option is a deflationist view, which does not take the concept of reference as a correspondence relation between terms and objects (rather, it does not take the concept of reference as correspondence relation between terms and objects in the same way as an inflationist does). Instead, a deflationist view about reference holds that the concept of reference is only a useful tool to serve some logico-expressive role in a language.

Now, as it will become clear in ch. 2, a deflationist view about reference addresses the "essentialist" question, by deflating it. It claims that the concept of reference is characterized by some trivial equivalence scheme (roughly, that '*a*' refers to *a*), and that we need this concept merely for a particular logico-expressive purpose. It does not say anything in order to answer the Platonic or metasemantic question of how reference is fixed - e.g. it does not say *why* '*a*' refers to *a* (which typically will involve some socio-historical facts about the use of '*a*'). To this end, a (deflationist-friendly) theory of names is needed. The best option for a deflationist might be a use theory of meaning, which includes a use theory of names. Since the use of words does not necessarily establish a one-one correspondence between words and the objects, a deflationist view is still compatible with indeterminacy of reference. This is

¹By 'metaphysical import' I mean something along the following line. Consider model theory and how models are conceived of there. In a model, we have a domain of objects and a function which assigned names to object. Let call this function 'reference function'. An inflationist view about reference takes this model-theoretic construction to be a faithful picture of reality. A similar point will come up later on in sec. 1.2.1.

Contents

so because indeterminacy of reference is a phenomenon concerning the Platonic or metasemantic question and the answer given by the theory of names adopted by a deflationist to the Platonic or metasemantic question is compatible with indeterminacy. While indeterminacy of reference does not disappear, a deflationist view about reference (unlike an inflationist view) is not threatened by it.

In the first chapter, I will set up the problem which is supposed to lead us to rethink the traditional inflationary notion of reference. In sec. 1.1.1 I will introduce the distinction between the "essentialist" and the Platonic or metasemantic question. In sec. 1.1.2 and 1.1.3, I will present the traditional views about the concept of reference, which are (typically) derived from views about how reference is fixed. In many cases, the notion of reference has been taken as reducible to other more basic terms (e.g. causation), but it will be clear that there is space for a primitivist conception of reference. In sec. 1.2.1 and 1.2.2, I will use some arguments to make a point against the inflationist view of reference, namely Putnam's model-theoretic arguments ([Putnam, 1980] and [Putnam, 1981]) and Unger's Problem of the Many ([Unger, 1980]). In particular, I shall argue that, while Putnam's arguments may be resisted, the Problem of the Many poses a serious challenge to the inflationist view of reference (no matter whether reference is defined in more basic terms or is taken as primitive). As mentioned above, the inflationist view about reference holds that reference is a correspondence relation with some metaphysical import. A word is supposed to bear such a relation to an object. On the other hand, the Problem of the Many challenges the idea that objects have clear individuation conditions. For example, it would appear that we cannot decide if the mountain we call 'Kilimanjaro' is the object K_1 (i.e. Kilimanjaro plus one atom) or K_2 (Kilimanjaro minus one atom). As a consequence, we are not able to decide which of the objects, K_1 or K_2 , the name 'Kilimanjaro' refers to. Therefore, the name 'Kilimanjaro' is referentially indeterminate. If a name is referentially indeterminate, then that name does not refer at all given the inflationist conception of reference. This is the lesson of the Many drawn by V. McGee and B.P. McLaughlin in [McGee and McLaughlin, 2000]. Since the claim that a name like 'Kilimanjaro' does not refer seems rather counter-intuitive, McGee and McLaughlin suggest that a deflationist view about reference may solve this problem. I will endorse their suggestion and undertake the task of defending a deflationist view about reference in ch. 2.

In chapter 2, deflationism about reference will be introduced by an analogy with deflationism about truth (sec. 2.1). An excursus on deflationism about truth may serve different purposes. First of all, deflationism about truth has received a great deal of attention in recent years and deflationist views about truth have been worked

out in more details, when compared with deflationist views about reference. Thus, exploring deflationism about truth may illuminate what deflationism about reference might mean and can pave the way for a proper understanding of the latter. Secondly, some deflationist theories of truth extend quite naturally to deflationist theories of reference.

In sec. 2.2, I will develop the analogy between truth and reference. In particular, I will claim that a supporter of deflationism about reference should maintain that (i) the "essentialist" question is misleading - one cannot really ask what reference is; (ii) that the Platonic or metasemantic question is no relevant in order to understand the notion of reference, even though a reply to this question is part of a theory of names; (iii) that the important question is: *Why* do we have the concept of reference in a language? (What is its purpose in a language?). Claims (i) and (iii) lead to the two core theses of a deflationist position about reference. The first thesis is that the concept of reference has a logico-expressive role in a language (to be specified in due course). To this end, all we need is some equivalence scheme for reference, for example:

$$\forall x ('a' \text{ refers to } x \text{ iff } x=a) \tag{0.1}$$

Such a scheme gives the meaning of 'refer' and what the concept of reference amounts to. The second thesis is that reference *only* plays some logical role, hence, reference is not a substantial notion (where 'substantial' is understood as having an explanatory role). Claim (ii) will be dealt with in sec. 2.2.2. Given the distinction between the "essentialist" and the Platonic or metasemantic question, we need also to distinguish a theory of the concept of reference from a theory of names, which specifies how reference is fixed - or rather, how some connection between a word and a part of the world is established. This means that a deflationist theory of reference goes together with a theory of names. I will suggest that a deflationist should opt for a use theory of names, which takes use as the main "ingredient" to establish the connection between a word and a part of the world (see [Horwich, 1998b, ch. 5], although I will point out some important differences). This move will allow us to reconcile a deflationist view about reference with indeterminacy of reference, as I shall argue in ch. 3.

In the last chapter, I shall discuss the following question: Is deflationism about reference compatible with indeterminacy of reference? *Prima facie* one may be tempted to say that this is not the case. After all, referential indeterminacy motivated the

Contents

move towards deflationism about reference. According to any equivalence scheme for reference, the name 'Kilimanjaro' just refers to Kilimanjaro and to nothing else. Given this, one may think that deflationism rules out the very idea of referential indeterminacy. However, I will argue that this is not the case and that indeterminacy of reference and deflationism about reference are compatible. My main argument will be the following. Since indeterminacy of reference is a phenomenon concerning how reference is fixed (i.e. how the connection between a word and a part of the world is established) and given the distinction between the "essentialist" question and the Platonic or metasemantic question, a supporter of a deflationist view about reference is able to accommodate indeterminacy of reference in her theory of names.

1 The inflationary view

In this chapter I will set up the problem which should lead us to rethink the traditional inflationary notion of reference. Some preliminary remarks are in order. To begin with, I shall point out straightaway that I take reference as a relation between words and objects, which we may also call designation. Note that this is specifically a philosophical notion of reference. The ordinary language notion of reference is rather a relation between a speaker, a word (or a sentence or a thought) and an object. For example, a speaker A may refer to object y with word w or when she utters sentence S (see [Horwich, 1998a, p. 121] and [Båve, 2009, p. 62]). I will not focus on this latter way to intend the notion of reference, but my interest will be only in the former philosophical one. Moreover, I will not deal with the notion of reference as a relation between sentences (as it is done when the topic of self-referential sentences is discussed, see for example [Picollo, 2018]).

Secondly, I will deal with reference mainly with respect to names and, more generally, words for objects. Nevertheless, the notion of reference extends to predicates, which refer to extensions. Despite not being directly concerned with predicates, my discussion will be general enough to cover also this case. Finally, it should be clear from the beginning what I mean by an inflationary notion of reference. I shall call *inflationist* any view about reference which tries to answer the question: What is reference? An inflationist view about reference, as I will understand it, holds that this question is a legitimate one and that reference is either definable in more basic terms or a primitive *correspondence* relation. In the next chapter this position will be contrasted with deflationist views about reference, which somehow deny such a claim. The main objective of the present chapter is to show that inflationist views about reference are not satisfactory and this will pave the way for a deflationist approach to this notion.

In the first section, I will introduce the distinction between the "essentialist" and the Platonic or metasemantic question. In the second section, I shall present four different models of how reference may be *fixed*, which can lead to four respective definitions of the *concept* of reference.¹ All these definitions are shown to conform

¹Note that the problem of fixing reference is shared by both inflationist and deflationist views

1 The inflationary view

to one and the same intuition about the nature of reference. That is, reference is to be reduced to a relation R that a word x bears to an object y , where R varies along with the model of reference we consider. Importantly, one need not take this stance. Rather, one might deem reference to be a primitive but still inflationary notion - typically, reference would be a correspondence relation between words and objects that cannot be further reduced. In the last section, I will use some arguments to make a point against the inflationist view of reference, namely Putnam's model-theoretic arguments ([Putnam, 1980] and [Putnam, 1981]) and Unger's Problem of the Many ([Unger, 1980]). Model-theoretic arguments, if successful at all, undermine an inflationist position which aims at defining reference, but seem ineffective against the primitivist inflationary view. On the other hand, the Problem of the Many threatens the very idea that the nature of reference is correspondence between words and objects.

1.1 Inflationary theories of reference

1.1.1 Two questions about reference

Language and its relation to the world has always been a tricky topic to deal with for philosophy. The origin of the (Western) philosophical thought on this issue goes back to ancient philosophy: Plato's *Cratylus* is just one witness of it. This example helps in locating us at the core of the problem I will deal with. Plato is trying to answer the question: How does it come that words designate exactly the objects they actually designate? (see [Sedley, 2018]). We can give an alternative formulation of the problem by asking why words *refer* to the objects they do refer to. Thus, we face straightforwardly an important distinction between two separate questions: the Platonic or metasemantic question on how reference is fixed and the "essentialist" question on what reference is. In [Horwich, 1998a], Horwich suggests somehow implicitly the distinction between these two questions. He writes

Of any candidate account of reference, we should ask two distinct questions. Is it correct? And is it relevant? Is it really an account of reference? [...] So the trouble with the description and causal theories is not so much that they are wrong, but that they are not what we are looking for; they are not really theories of reference. ([Horwich, 1998a, pp. 115 and 117]).

about reference. This point will come up and discussed in the next two chapters.

Although the explicit distinction concerns questions about how to assess accounts of reference, the consequence drawn (that neither the description nor the causal theories are theories of reference at all) suggests that a theory of the concept of reference and a theory of reference fixing (or, more generally, a theory of names) are distinct matters.

The same distinction between the metasemantic and the "essentialist" question is also hinted at by Putnam. In [Putnam, 1980], the author clearly claims that the Kripkean model of how reference is fixed (see below) and his own theory, which is similar to Kripke's, are not meant to be a definition of reference. In Putnam's own words

The term "causal theory of reference" was originally applied to my theory of the reference of natural kind terms and Kripke's theory of the reference of proper names. These theories did not attempt to define reference, but rather attempted to say something about how reference is fixed, if it is not fixed by associating definite descriptions with the terms and names in question. ([Putnam, 1980, p. 476])

Moreover, in [Putnam, 1981], Putnam claims

... it is trivial to say what any word refers to within the language the word belongs to, by using the word itself. What does 'rabbit' refer to? Why, to rabbits, of course! What does 'extraterrestrial' refer to? To extraterrestrials (if there are any). [...] For me there is little to say about *what reference is* within a conceptual system other than these tautologies. ([Putnam, 1981, p. 52], italics mine)

As I see it, these remarks combined allude to the need of distinguishing the metasemantic from the "essentialist" question. However, none of these two authors make an extended use of such a distinction, while it will be crucial in the next two chapters of the present work.

As we will see, an inflationist about reference may attempt to respond the "essentialist" question via an investigation concerning the Platonic or metasemantic one. In other words, one may want to give a *definition* of reference on the basis of the story one gives about how reference is fixed. This is not compulsory and one can take reference to be a primitive, but still inflationary notion. However, we shall explore four different models of how reference is fixed which lead to four respective definitions of reference.

1.1.2 Four models of linguistic reference

Despite the long tradition of the studies about reference, I will confine my exposition to models of linguistic reference developed during the XXth century, following their classification as it is given in [Michaelson and Reimer, 2019]. Here, by ‘models of linguistic reference’ I mean theories of names in the sense defined in the introduction. However, I will keep the former expression as this is the one found in the entry [Michaelson and Reimer, 2019]. Note that such models do not have the same degree of generality. That is, the first two - the descriptivist and the causal model - are more suitable to proper names, but their treatment of indexicals might be awkward. The third - the character model - is thought of to cover indexicals, but does not seem to give a proper account of demonstratives. The last one - the intensional model - aims to be the most general and to cover all the cases.

The descriptivist model

To begin with, I will focus on the descriptivist model, that is, the model of reference which stems from the works of G. Frege and B. Russell. First of all, we should note that this model of reference has a somehow narrow scope: it applies mainly to proper names. In fact, the descriptivist model of reference derives from theories which aim at establishing (i) when a proper name refers and (ii) the contribution of proper names to the meaning of the sentence in which it occurs. Both in the work of Frege and Russell, we find that proper names are associated with some descriptive content which picks out a *unique* referent for the name.² Whereas Frege characterizes the intuitive idea of descriptive content of a name as its *sense*, in Russell we find it under the label of the technical notion of definite description. Let us see in some more detail the respective features of the proposals.

In his famous [Frege, 1892], Frege distinguishes the two notions of sense and reference as follows. The sense of a word is what we might call its meaning, while the reference of a word stands for the object this word designates. The same distinction is made also when we ascend to the level of sentences. The sense of a sentence is the proposition expressed by this sentence - where such a proposition is constructed out of the senses of the words occurring in the sentence, following a principle of compositionality - while the reference of a sentence is its truth value. Now, when proper names are concerned, their sense is identified with some description of the

²It is important to note that Russell took "real" proper names to be expressions referring to objects which we know by acquaintance. Therefore, proper names as usually understood do not fall under the Russellian category of proper names, but rather are names by description (see [Russell, 1911]).

object denoted by that name, while the reference is the object itself. For example, consider the name ‘Aristotle’. According to Frege, the sense of this name might be ‘the pupil of Plato’ or ‘the teacher of Alexander the Great’. Natural language admits this kind of ambiguity, even though a language apt for scientific purposes should avoid it (see [Frege, 1892, p. 210, footnote 2]). However, what is important to remark is that the meaning (i.e. the sense) of the name ‘Aristotle’ is given by a predicate (or we may say a property) which is uniquely satisfied by the individual Aristotle. For this reason, the reference of ‘Aristotle’ (i.e. Aristotle) is fixed by the sense of the name.

Where Frege talks about the sense of a proper name, Russell calls it the definite description associated with a proper name. A definite description is an expression of the form ‘the F’, where F is any predicate. An expression such as ‘the pupil of Plato’ is a definite description, where the predicate is ‘is the pupil of Plato’. In [Russell, 1905], Russell discloses the logical form of definite descriptions. They appear as singular terms, while in fact they must be analyzed as existentially quantified sentences. Take again the example above, ‘the F’. Its logical form is made explicit by the sentence:

$$\exists x(Fx \wedge \forall y(Fy \rightarrow x = y)) \quad (1.1)$$

Because x might fail to exist, such a sentence might be false. Hence, definite descriptions do not refer at all. According to Russell, proper names are definite descriptions in disguise (see [Russell, 1911]) and, whenever they occur in sentences, such sentences are true when there is exactly one object satisfying the predicate in the description. In this way, referents for proper names (which, however, do not properly refer, being definite descriptions in disguise) is fixed. Since Russell diverges from Frege in that he takes definite descriptions as not being genuine devices for reference, they also disagree on the contribution of names to the meaning of sentences in which they occur. Indeed, whereas Frege takes such a contribution to be the object referred to by the name, Russell deems it to be merely the description associated with the name (see [Michaelson and Reimer, 2019]). However, it should be emphasized that they agree on the idea that reference is fixed by such descriptions (with the proviso that this is not entirely correct with respect to Russell), since this is the thesis which characterizes the descriptivist model of reference.

The causal model

The causal model of reference mainly results from Saul Kripke's critique of the descriptivist model (see [Kripke, 1980, lecture II]) and it was independently suggested by Hilary Putnam (see [Putnam, 1973], [Putnam, 1975] and [Putnam, 1988]). Once again, it must be pointed out straightaway that the causal model is quite narrow in scope: it too is only applicable to names. In order to see the rationale behind such a model, let us briefly consider the objections raised by Kripke to the Frege-Russell view of proper names. Firstly, Kripke provides a list of six theses (or better one definition, thesis 1, and five theses) which any descriptivist theory of proper names is committed to. Then, he proceeds to show that for each of theses 2-5 there is a counterexample:³

- **Thesis 1. To every name or designating expression 'X', there corresponds a property ϕ such that A believes ' $\phi(X)$ '.**
- **Thesis 2. A description picks out a unique individual.** Its falsity is quite evident once you recognize that the layman may well attach to, say, the name 'Cicero' the (indefinite) description 'a famous Roman orator', which fails to pick out a unique individual - indeed, it is satisfied by any famous Roman orator. Still, intuitively the layman does not fail to refer to the man Cicero.
- **Thesis 3. If the description is satisfied by a unique object y , then y is the referent of the name for the speaker.** Consider a possible world where a man called Schmidt proved the incompleteness theorem. In this world then, the name 'Gödel' truly refers to Schmidt and, whenever we use 'Gödel', we really are referring to Schmidt. However, this does not seem to be the case.⁴
- **Thesis 4. If no object satisfies the description, the name fails to refer.** Consider a possible world where no one proved the incompleteness theorem - its proof just materialized before Gödel's eyes. In this world then, the name 'Gödel' truly does not refer at all. However, it still seems that we would refer to the man Gödel by using the name 'Gödel'.

³I will ignore the fact that Kripke's critique is extended to descriptivist theories which claim that names are associated with *clusters* of descriptions, since it does not make any substantial difference for the objections raised.

⁴A stronger point is made by a variant of this counterexample. In the actual world, it seems that the real discoverer of the axioms which characterize natural numbers is Dedekind. Thus, the description 'the discoverer of the axioms which characterize natural numbers' should really pick out Dedekind and when we use the name 'Peano' we really are referring to Dedekind, but obviously this is false (see [Kripke, 1980, pp. 84 and 85]).

- **Thesis 5 and 6.** The sentence ‘If X exists, then X has the property (pointed out by the description)’ is known *a priori* by the speaker and is a necessary truth. According to Kripke, theses 5 and 6 follows from 1-4. However, it is contingent that the object satisfying the description has that property. Thus, that sentence cannot be a necessary truth. Moreover, in general it is hard to see how a speaker could know *a priori* what is expressed by this sentence.

The diagnosis Kripke provides about the failure of the descriptivist model is that descriptivism wrongly takes proper names and definite descriptions to be the same kind of designating expressions. However, the counterexamples above, and in particular the modal ones, show that proper names and definite descriptions have an altogether different behaviour. Definite descriptions may refer to *different* objects in different worlds, hence, they are *non-rigid* designators. On the other hand, a proper name refers to the *same* object in all worlds where this object exists: a proper name is *rigid* designator. Thus, the problem is to give a story of how proper names come to refer to the object they do. This bit of the picture is filled in by what we are the calling causal model of reference. There is a moment, an "initial baptism", when a name x is assigned to an object y by someone who is in direct acquaintance with y . The name x is a *label*⁵ for y and it might be assigned by ostension or through the use of a description. Then, whoever has assigned x to y communicates it to other people and the word spreads around through a chain of communication which goes back to y . x refers to y because of this chain of use.

Despite there being diverse reasons to criticize both the descriptivist and the causal model - for example, how are they supposed to accommodate cases of names with multiple bearers? - it is not my interest to engage in a discussion about their respective merits or flaws. However, as already emphasized above, an important limitation affecting both models is their narrow scope of applicability. Indeed, we are left without any convincing story of how words like ‘I’ or ‘that’ come to refer. To be sure, there have been attempts to adapt either the descriptivist or the causal model to indexicals (see [Michaelson and Reimer, 2019]). However, they face serious objections and this has been taken as a motivation for developing further theories of reference, which in turn give rise to the next two models: the character model and the intensional one.

⁵It is worth mentioning that the idea of proper names as tags or labels for objects goes back to John Stuart Mill. Independently from Kripke’s work, such a view has been endorsed by Ruth Barcan Marcus among others (see [Michaelson and Reimer, 2019]).

The character model

As anticipated above, the character model of reference is designed to provide a more general explanation of how words come to refer. Such a model derives from the work of D. Kaplan about demonstratives and other indexicals (see [Kaplan, 1989]) and hinges on his distinction between the *content* of a word and its *character*.

Kaplan calls the content of a word its first kind of meaning. It is in fact what we may usually regard as the meaning of a word, that is, its contribution to the meaning of the sentence in which it occurs - in other words, to the proposition expressed by the sentence. Contents (of words and sentences) are evaluated in circumstances or possible worlds. Hence, when singular terms are concerned, the result of this evaluation will be an object. The second kind of meaning that words possess is their character. Characters may be considered as rules or instructions of use, which determine the content of words in different contexts. Since contents in turn determine together with a context of evaluation the object the word refers to, we have that the character of a word plays a crucial role in picking out the referent of that word. For this reason, the notion of character is the key to provide a uniform account of reference that accommodates both names and indexicals such as ‘I’ or ‘now’. Indeed, while names come to have a constant character, which means that the referent of a name will not vary across contexts of evaluation, indexicals have rules of use which make it possible for the referent to vary according to the context in which a word like ‘I’ is uttered. For example, consider the sentence

I am here now (1.2)

According to Kaplan, ‘I’ is associated with the rule ‘I’ refers to the speaker or writer’. Thus, in a context in which, say, Ann utters 1.2, ‘I’ will refer to Ann, while in case it is Bob who utters 1.2, ‘I’ will refer to Bob. Similar rules are associated with ‘now’ and ‘here’, even though the referent of the former will not be in any obvious sense an object. Now, consider for instance the name ‘Marta’. The rule of use associated with this name will dictate that, no matter in which context it is uttered, the referent of this name will always be myself. Of course, there might be doubts about contexts where there is more than one person called ‘Marta’. However, whereas for Kaplan the referent of a name depends also on the *intention* of the speaker to talk about a particular person, other take the character of names to behave as indexical’s characters do, that is, they are such that the referent varies along

with the context (see [Michaelson and Reimer, 2019]). It may still be a problem to define the rule which would make it possible. For example, in a room where both me and another girl called ‘Marta’ are present, how can a rule for the use of ‘Marta’ discriminate between us? Some have attempted to appeal to a relevance criterion, but it is not clear at all whether this might work. At any rate, my interest does not lie in the details of the character model of reference *per se*. Rather, I aimed at pointing out how the character of a word is supposed to pick out the referent of this word.

The intensional model

The last model of linguistic reference we need to consider is the intensional model. Roughly, the idea is that the referent of a word is determined through the intentions of the speaker, namely by the fact that the speaker intends to talk about a particular object by using a given word. Taken at face value, the idea just sketched raises the obvious objection that to suppose reference being fixed by mere intentions amounts to say that one can use whatever word to refer to anything she intends to refer. Of course, the intensional model has been refined in a way which tries to avoid this kind of immediate worry. Let us begin by briefly looking at some reasons in support of the intensional model and then see whether it may be improved to a plausible picture of how reference works.

The main reason to appeal to intensions comes again from the desire to accommodate indexicals in a uniform theory of reference. Whereas the character model might work well enough for indexicals like ‘I’, it seems to fall short of accounting for demonstratives like ‘that’ or pronouns like ‘he’ or ‘she’. For example, in a room full of objects, what would be the rule of use which selects a particular object as the referent of an utterance of ‘that’? Note that this problem is quite similar to the one mentioned above about names with multiple bearers, which Kaplan was already suggesting to incorporate speakers’ intentions into a model of reference. Thus, suppose we grant that the referent of a word is really picked out by the intension of the speaker to refer to that object. Consider now the sentence

This is the funniest politician of our times (1.3)

and imagine someone, call her Christine, is uttering it in front of a picture of Angela Merkel, while meaning to refer to Donald Trump. According to the naive intensional theory of reference, Christine is successfully referring to Trump, despite

1 The inflationary view

the clear intuition that she is not. To put it in other words, the naive intensional theory of reference overgeneralizes cases of successful reference. Hence, supporters of this view have tried to strengthen the requirements to successfully refer to an object either by restricting the kinds of intentions which count as referential or by imposing some limits on when the intentions of a speaker fix reference (see [Michaelson and Reimer, 2019]). Again, it is not my goal to get deeper in the discussion about the intensional model of reference. It suffices to say that, if properly worked out, it might be the more general and inclusive model of reference we have seen so far, as it would accommodate names as well as indexicals.

1.1.3 The nature of reference

So far, the focus has been on the features which differentiate one model of linguistic reference from another. All of them try to answer the question: How is reference fixed, what determines the object that a word refers to? The descriptivist replies that this role is taken over by descriptions associated with names. The causal theorist takes this view to be in general wrong and claims that reference is fixed by a chain of communication inside the linguistic community. The supporter of the character model blames the causal story for its limitations in accounting for cases of reference when indexicals are concerned. Finally, the intensionalist points out that even characters are not enough and that you cannot escape the appeal to speakers' intentions to refer to some object when they use some particular word. I would like to recall now the distinction between two initial questions one might ask about reference. The former is what I called the Platonic or metasemantic question: How does it come that a word denotes one specific object? The latter is what I labelled the "essentialist" question: What is reference? As anticipated, I claim that all the four models of linguistic reference considered above may be taken to respond to the "essentialist" question by means of their answer to the Platonic or metasemantic question. The result in all four cases would be that reference is *reduced* to a relation R that a word x bears to an object y , where R varies along with the model of reference we consider. In short, reference is a relation *defined* in terms of some other more basic terms. Schematically, an analysis of reference would have the form:

$$x \text{ refers to } y \text{ iff } x \text{ bears the relation } R \text{ to } y \quad (1.4)$$

Let us see how each of the four models of reference would conform to 1.4.

The descriptivist model says that names are associated with definite descriptions. A definite description expresses some property that the object satisfying that description, if any, uniquely possesses. Hence, we have a predicate which is uniquely satisfied by that object (if any). For example, let us consider a name N and a description D . We can identify D with some predicate F . Since according to the descriptivist model D gives the meaning of N , we might say that $F =$ the meaning of N . Let us say that F is satisfied by the object a . Satisfaction is a relation between a predicate and an object. Thus, we might say:

$$N \text{ refers to } a \text{ iff } a \text{ satisfies } F \quad (1.5)$$

This is not yet an instance of 1.4. However, since F gives the meaning of N and N is just D in disguise or an abbreviation of D , we might see the right-hand side of 1.4 as in fact establishing a relation between N and a . Therefore, even though strictly speaking it is not an instance of 1.4, 1.5 captures its spirit. Hence, the descriptivist model would reduce reference to a relation, where this relation is satisfaction.

As to the causal model, it may be a bit more straightforward to see how this model would provide an analysis of reference along the lines of 1.4. A preliminary remark is in order. As mentioned above, the causal model aims firstly to provide a story of how reference is fixed. However, as I shall argue, the causal model provides the "ingredients" for an analysis of reference.⁶ Let us assume that we have an object in the world, a . According to the causal model, someone directly acquainted with a declares that by the name ' a ' we refer to a . She communicates it to other members of the community, who in turn spread the word around. In 40 years, most likely a will still be called ' a ' (or another "initial baptism" might take place). Thus, we may say:

$$'a' \text{ refers to } a \text{ iff there is a chain of communication which links } 'a' \text{ to } a \quad (1.6)$$

In this case, it seems we really have an instance of 1.4, where R is taken as a causal relation (i.e. a chain of communication) between ' a ' and a .

Like the causal model, the character model of reference is easily seen to conform to 1.4. Recall that the character of a word is a rule of use for that word, which determines its content according to contexts of utterance. In turn, the content picks

⁶Indeed, Gareth Evans followed this path in [Evans, 1973]

1 The inflationary view

out the referent of the word according to the circumstance or world of evaluation. Kaplan suggests to see both character and content as functions (see [Kaplan, 1989, pp. 505 and 506]). Character is a function from contexts to contents and content, in turn, is a function from circumstances to extensions. In short, the outputs of characters are contents and contents applied to circumstances of evaluation give back objects. For example, consider a word a and an object b . Let us call f_a the character of a . Then, we might say:

$$a \text{ refers to } b \text{ iff there is a context } c \text{ and a world } w \text{ such that } [f_a(c)](w) = b \quad (1.7)$$

where $[f_a(c)]$ is the content function. Since functions are relations, 1.7 can be legitimately seen as an instance of 1.4. The link between words and objects is established by means of two such relations, where the latter functionally depends on the former.

Finally, let us turn to the intensional model. Again, it is not hard to see the affinity between this model and the general scheme given in 1.4. According to the intensional model, speakers' intentions determine reference. For example, take a speaker s , a word a and an object b . The intensional model says that b is the referent of a when s intends to talk about b by using a . Such a claim can be modelled through a function. We may define the function INT_s (where s is the speaker) as follows:

$$INT_s(a) = b \quad (1.8)$$

In words, the referent of a is a function of the intentions of the speaker. Hence, we have:

$$a \text{ refers to } b \text{ for speaker } s, INT_s(a) = b \quad (1.9)$$

Here again, since functions are relations, 1.9 is a legitimate instance of 1.4. To anticipate an objection, someone might question 1.9 as not being really an analysis of reference. After all, on the right-hand side we have that the speaker intends to talk about b by using a . Is not this expression the same as saying 'the speaker intends to refer to b by using a '? If this were so, we would face a case of circularity. However, this is not the case. As mentioned above, the philosophical notion of reference (a relation between an object and a word) must be distinguished from the ordinary

1.2 Why inflationism does not work

language notion of reference (a relation between a speaker, a word - or a sentence or a thought - and an object). In 1.9, the *definiendum* is the philosophical notion of reference, while the *definiens* is rather the ordinary language notion of reference. For this reason, there is no risk of circularity in 1.9.

We have seen that all the models of reference considered so far may lead to one and the same idea about the nature of reference. Reference would be *defined* as some kind of relation which a word bears to an object. *Prima facie* this position would seem to implicitly make a twofold assumption. First of all, it is assumed that we have a domain of objects to which words are definitely assigned through e.g. causation - i.e. it is assumed that reality is like a model in model theory and, say, causation gives the interpretation of words. Secondly, it is assumed that such objects have precise individuation conditions. These two claims have been challenged by Putnam's model-theoretic arguments and by Unger's Problem of the Many. The goal of the remainder of the chapter is to see how successful those arguments are and whether they cast doubt the inflationary view of reference.

1.2 Why inflationism does not work

As the title of this section indicates, I take the inflationary view of reference as threatened by at least one of the arguments mentioned above. More specifically, we will see that, even though Putnam's model-theoretic arguments might still be rejected, Unger's Problem of the Many raises a serious doubt about the very intuition of reference *as a correspondence* between words and objects. This claim will be made more precise, as there is still a sense in which we want to employ the idea of correspondence to describe how words come to designate objects. In other words, the idea of correspondence might be still a useful way of speaking when we try to provide the Platonic or metasemantic question with an answer. Hence, the main point will be that we should avoid to use the idea of correspondence in an attempt to describe the nature of reference.

A preliminary remark is in order. We have seen that the four models of reference examined above *can* provide a definition of reference. One is not compelled to follow this way and may think about reference as a primitive but still inflationary notion. It will be important to bear this point in mind, as it is part of the reason why the Problem of the Many seems to be a greater threat to the inflationary view of reference than Putnam's model-theoretic arguments.

1.2.1 Model-theoretic arguments

Putnam's model-theoretic arguments are primarily aimed at questioning a precise metaphysical position, that is, metaphysical realism. Reference comes into the picture as a means to this end. Nevertheless, if successful, these arguments make still a point about how reference should be thought of and for this reason they are considered in the present context. To be sure, Putnam developed a variety of arguments which employ different model-theoretic results - e.g. Löwenheim-Skolem theorem is appealed to in [Putnam, 1980]. As all of them are used to raise essentially the same objection to the metaphysical realist, I will consider the so-called permutation argument, which is rather simple and goes straight to the point. To begin with, we need to see what exactly metaphysical realism amounts to and how the argument is supposed to work. Then, I will show why we may face a potential threat to a definition of reference which is given in terms of any of the four models of reference considered above. Throughout this section, I will follow rather closely Tim Button's exposition of metaphysical realism and the permutation argument as he does it in [Button, 2013].

In [Putnam, 1980], Putnam distinguishes metaphysical realism from Platonic realism. While a Platonic realist is willing to appeal to some kind of inexplicable faculty of the mind which enables humans to "grasp" forms, a metaphysical realist rejects it. However, she is still a realist in that she upholds that there are mind- and language-independent objects in the world and our words stand in some correspondence relation (reference and truth) to them. And she is a metaphysical realist in that this relation is given independently of our use of those words, i.e. use does not determine reference but *something else* does it. This last claim is the main target of Putnam's attack. And it is this very claim which leads the metaphysical realist to embrace a (Cartesian) skeptical attitude towards the correctness of our best theory of the world. Since the world is made up of mind- and language-independent objects, even an ideal theory, which gets all predictions about the world right, might be radically false. Thus, Tim Button sums up the metaphysical realist position in three theses:

1. **The Independence Principle.** The world is made up of objects that are mind-, language-, and theory-independent.
2. **The Correspondence Principle.** Truth involves some sort of correspondence relation between words or thought-signs and external things and sets of things.
3. **The Cartesianism Principle.** Even an ideal theory might be

radically false.

([Button, 2013, pp. 8-10])

Now, the first step in Putnam's attack is to describe the metaphysical realist position in model-theoretic terms. Indeed, it is not hard to see that the model-theoretic terminology is quite apt to this task. Let L be a first-order language and let T be the metaphysical realist's theory of the world in L . Then, the world is conceived of as the intended model \mathcal{M} for T , with domain M and an interpretation for constant, predicate and function symbols. As the interpretation of L is not dependent on us (and hence, \mathcal{M} does not depend on us), we might well claim something about the world which is not true.

Given this description of the metaphysical realist position, the permutation argument exploits a mathematical fact to make a philosophical point. Indeed, we have a theorem (the permutation theorem) which establishes that *if a theory has a (non-trivial) model, then it has many distinct isomorphic models with the same domain*, where a non-trivial model for some language L is defined as follows ([Button, 2013, pp. 230 and 231])

Definition 1.2.1 \mathcal{M} is a non-trivial L -structure iff it meets any of the following conditions:

(a) \mathcal{M} contains more than one element and L contains at least one constant symbol.

(b) there are $a_1, \dots, a_n, b_1, \dots, b_n \in M$, with $a_i = a_j$ iff $b_i = b_j$, such that $\langle a_1, \dots, a_n \rangle \in R^{\mathcal{M}}$ and $\langle b_1, \dots, b_n \rangle \notin R^{\mathcal{M}}$ for some L -predicate symbol R .

(c) there are $a_1, \dots, a_n, b_1, \dots, b_n \in M$, with $a_i = a_j$ iff $b_i = b_j$, such that $f^{\mathcal{M}}(a_1, \dots, a_n) = a_n$ and $f^{\mathcal{M}}(b_1, \dots, b_n) \neq b_n$ for some L -function symbol f .

The permutation argument exploits the permutation theorem to show that it is indeterminate which correspondence relation is the intended one, i.e. reference is indeterminate. To give a simple illustration of how the argument is supposed to run, consider a model \mathcal{M} with domain $M = \{a_1, a_2, a_3\}$, where $P^{\mathcal{M}} = \{a_1, a_2\}$. Let $c_1^{\mathcal{M}} = a_1$, $c_2^{\mathcal{M}} = a_2$ and $c_3^{\mathcal{M}} = a_3$. Thus, in this model ' c_1 is P ', ' c_2 is P ' and ' c_3 is not P ' come out as true. Call the set including these sentences T . Let us assume that this is the intended model for T . Now, let π be a permutation on M such that:

1 The inflationary view

$$\pi(a_1) = a_3$$

$$\pi(a_2) = a_1$$

$$\pi(a_3) = a_2$$

Then, we can use π to generate a model \mathcal{N} where (see [Walsh and Button, 2018, p. 37]):

$$c_1^{\mathcal{N}} = \pi(c_1^{\mathcal{M}}) = a_3$$

$$c_2^{\mathcal{N}} = \pi(c_2^{\mathcal{M}}) = a_1$$

$$c_3^{\mathcal{N}} = \pi(c_3^{\mathcal{M}}) = a_2$$

and where the extension of P in \mathcal{N} is the image of the extension of P in \mathcal{M} , hence $P^{\mathcal{N}} = \{\pi(a_1), \pi(a_2)\}$. Thus, we have that in \mathcal{N} exactly the same sentences come out as true, despite the interpretation of names and the predicate P being distinct. Therefore, which is the intended model for T ? The embarrassment of riches which the metaphysical realist faces is a threat to her correspondence principle. Recall that the Correspondence Principle holds that truth involves some sort of correspondence relation between words or thought-signs and external things and sets of things. The permutation theorem shows that, for a given theory in a fixed formal language, there are many models and more than one "correspondence" relation which make the same theory come out as truth. Since the metaphysical realistic position is well described in model-theoretic terms, this mathematical results has some consequences for her conception of the relation between language and the world. In particular, it seems that she cannot pick out *the* correspondence relation, which the Correspondence Principle talks about. However, the metaphysical realist might reply that, say, causation fixes reference (i.e. causation picks out the intended correspondence relation). And Putnam replies in turn by putting forward his Just-More-Theory manoeuvre (JMT-m) (which will be explained below). It is at this point that a definition of reference along the lines of any of the four models presented above might get in trouble.

Before looking into the JMT-m, it is worth pointing out an assumption that one needs to make if one wants the model-theoretic arguments to go through. As Button notices (see [Button, 2013, p. 34]), we might conceive of experience in a wide or narrow sense. In other words, we might think of experience as being about, say, tables themselves or about what appears to us as a table - i.e. something like sense data or similar. Now, if tables are directly involved in our experience, a reinterpretation of the word 'table' would change the truth value of sentences where this words appears. Assuming that this was our intended model, it seems

1.2 Why inflationism does not work

that we would have a criterion to choose one model instead of the other. However, if our experience is somehow indirectly about tables, then, modulo some adjustments also in the matching of perceptions and interpretation of words, the model-theoretic arguments would go through - at least as long as the metaphysical realist appeals to causation or similar notions, which are claimed to fix reference. It is important then to bear in mind that Putnam's model-theoretic arguments are conditional on assuming a narrow view about experience, which might itself be quite controversial. A supporter of direct realism about perception (the doctrine which holds that in sense perception we are directly aware of the existence of the external world (see [Dancy, 1985, p. 147])) would already have a reason to reject the model-theoretic arguments from the very beginning. However, it is not clear that direct realism about perception get things right and, even if it does, it is still interesting to see the nexus between a metaphysical position like metaphysical realism and a position in philosophy of language about the nature of reference. Therefore, let us assume that the model-theoretic arguments - in the present case the permutation argument - succeed in pushing the metaphysical realist to the position where she cannot choose which is *the* correspondence relation she is talking about.

Let us now go back to the JMT-m. When the metaphysical realist claims that, say, causation fixes reference, Putnam replies that adding to her theory of the world a causal theory of reference would be to add *just more theory* (see [Putnam, 1977, pp. 486-487 and 494]; [Putnam, 1980, p. 477]; [Putnam, 1981, pp. 45-48]). Here, we should understand a causal theory of reference as the attempt to provide a definition of reference according to the causal model. A definition is given in a metalanguage, which in this case would include 'causation' and 'chain of communication'. Such terms need to be interpreted themselves and as such the permutation argument would apply also to them. Importantly, this move would be utterly general and, in particular, would apply to a definition of reference derived from any model of reference explored so far. Consider the definition of reference which comes from the descriptivist model: for some object a , some predicate F and some name N - which recall is just F in disguise - N refers to a iff a satisfies F . Now, unless you assume the existence of irreducible semantic facts, satisfaction needs to be reduced in physicalistic terms, which in turn would one way or the other appeal to the concept of causation. Similarly, a definition of reference along the character model would end up appealing to causation, as the characters of words would presumably be given through a chain of communication inside the linguistic community in the same way

1 The inflationary view

as the causal model depicts.⁷ Finally, the appeal to speakers' intentions would not do better. For one thing, intentions might be just another name for inexplicable understanding, the notion which the Platonic but not the metaphysical realist is willing to appeal to (see [Putnam, 1980, p. 474]). For another thing, if intentions have to be taken as an empirical notion like causation, then 'intention' also needs to be interpreted and the permutation argument would be applicable again.

The JMT-m has been blamed for begging the question against the metaphysical realist: the latter claims that it is not our interpretation of, say, 'causation' that fixes reference, but *causation itself*. Button tries to save the JMT-m from this charge. The defense crucially hinges on the fact that the metaphysical realist is committed to the Cartesian Principle. I will not go through this defense. Rather, it is important to see that the permutation argument is a real threat to an inflationary theorist of reference as long as she is also a metaphysical realist. Thus, the question is whether an inflationary view of reference is necessarily tied to such a metaphysical position.

It might seem that an inflationary view of reference which wants to give a definition of reference is in fact committed to the Cartesian Principle. After all, this definition would be nothing but recognizing that it is not simply our use of language which interprets language, but something else is - be it causation, intentions or some other notion. As said above, this claim leads to adopt a skeptical attitude towards our best theory of the world. Provided Button's defense of the JMT-m is correct, this would mean that any inflationary view of reference which is reductionist is threatened by the permutation argument. However, one need not be reductionist and might take reference to be a primitive, but still inflationary notion instead. This would mean that it is not possible to reduce reference to some more basic terms. Nevertheless, reference would be still inflationary in that it would be seen as a correspondence relation between objects and words. Note that this phrasing is somehow ambiguous. To be sure, it may seem a platitude that there is such a correspondence between words and objects. For example, we may say that the word 'tables' corresponds to tables, meaning that 'tables' refers to tables. However, this might well be just a manner of speaking.⁸ According to this understanding of correspondence talk, reference need not be an inflationary notion - and it will not be as we will see

⁷To be sure, Kaplan talks of linguistic conventions as the source of characters (see [Kaplan, 1989, p. 505]). However, it is plausible to see such conventions as Kripke sees a chain of communication among members of the same linguistic community, which basically provides the character of proper names.

⁸Button suggests something similar, but it is not clear at all whether he takes correspondence talk as just a way of speaking or as something more (see [Button, 2013, pp. 69 and 70]).

in the next chapter.⁹ On the other hand, correspondence may be taken as the "nature" of reference. In this sense, reference would be inflated. The permutation argument does not seem effective against a view of reference which takes reference as a primitive but still inflationary notion. This is so because the permutation argument is meant to attack the view according to which it is not simply our use of language which interprets language, but something else is. It is not supposed to question a correspondentist view of reference (i.e. the idea that reference is a correspondence relation between words and objects with some metaphysical import). On the other hand, it is precisely this position which is (indirectly) attacked by another metaphysical argument, the Problem of the Many, as we shall see in the next section.

1.2.2 The challenge of the Problem-of-the-Many

The problem of the Many is designed to challenge the idea that objects have clear individuation conditions. Thus, once again it is not an argument directed against a particular position about reference. Rather, the threat to a correspondence notion of reference is a consequence of the metaphysical point the argument is supposed to make, as McGee and McLaughlin point out (see [McGee and McLaughlin, 2000]). To begin with, I will show how the argument works and then discuss why it is a problem for an inflationary view of reference.¹⁰

Suppose we want to say that there is exactly one mountain called 'Kilimanjaro'. Suppose moreover that we are able to isolate one of its peripheral atoms, call it A . Let K_1 be Kilimanjaro plus our peripheral atom A and K_2 the same mountain from which A has been subtracted. Now, we would like to establish an identity statement and say either K_1 or K_2 is the mountain Kilimanjaro. That is, we would like to say that the name 'Kilimanjaro' refers to exactly one of them. However, which one? Surely, it cannot be the case that $K_1 = K_2$, since K_1 and K_2 are in fact different mereological sums. The premises generating the puzzle can be made precise as follows:

1. Any mountain is composed of a set of atoms.
2. There are several distinct sets of atoms S_k such that for each of them, the atoms in S_k form a mountain.

⁹I will further clarify this point in sec. 2.2.2, where I discuss the problem of reference fixing from the deflationist's point of view.

¹⁰I will follow the version of the puzzle as given in [Weatherson, 2016].

1 *The inflationary view*

3. For each set S_k , there is an object O_k that the atoms in S_k compose.
4. If the atoms in S_i compose O_i , and the atoms in S_j compose O_j , and the sets S_i and S_j are not identical, then the objects O_i and O_j are not identical.
5. If O_i is a mountain, and O_j too, and O_i is not identical with O_j , then there are two mountains.
6. If any of these sets S_i is such that its members compose a mountain, then for any other set S_j , if its members compose an object O_j , then O_j is a mountain.

If we accept each of premises 1-6, then we end up with a possibly infinite number of mountains, even when we thought there was just one. Moreover, together with the assumption that there is exactly one mountain called ‘Kilimanjaro’, we end up with a possibly infinite number of mountains all of which are equally eligible to be the mountain we call ‘Kilimanjaro’. This issue has been thought of primarily as a metaphysical problem concerning identity, since we face the challenge of specifying what the conditions allowing us to individuate an object are. However, it may be argued that it is rather an epistemological problem, which points to some kind of epistemic deficiency of humans. Finally, it could be seen as a semantic problem of our language. In any of these cases, the Problem of the Many is a challenge to an inflationary view of reference.

To see this, recall that the inflationist view about reference holds, at the very least, that reference is a correspondence relation with some metaphysical import. A word is supposed to bear such a relation to an object. However, the Problem of the Many shows that there might be several objects all of which are admissible candidates to be the referent of a given word. For example, it would appear that we cannot decide whether the mountain we call ‘Kilimanjaro’ is the object K_1 or K_2 . This is so because nothing in our use of the name ‘Kilimanjaro’ specifies whether this name refers to K_1 or to K_2 . That is, we are not able to decide which object, K_1 or K_2 , the name ‘Kilimanjaro’ corresponds to. In other words, indeterminacy of reference is a consequence of the Problem of the Many. If a name is referentially indeterminate, then that name does not refer at all given the inflationist conception of reference. This is the lesson of the Many drawn by V. McGee and B.P. McLaughlin in [McGee and McLaughlin, 2000]. Thus, troubles for an inflationary view of reference begin as soon as we realize that our language lacks the grasp on reality we supposed it had. To repeat, one need not assume that reference has to be reduced to some more basic notions. One can take reference to be primitive correspondence

relation between words and objects. This suffices for the Problem of the Many to be a threat for such a view.

The Problem of the Many, when thought of as a metaphysical problem concerning identity, has received many attempted solutions. For example, some have suggested that it is wrong to identify the whole with the sum of its parts (see [Johnston, 1992], [Lowe, 1982] and [Lowe, 1995]). This would solve the problem, since you could say that you may have several sums but just one whole, and the whole should not be identified with one of the sums. However, the idea that a whole is not identical to its parts taken collectively is highly controversial in mereology (see e.g. [Lewis, 1991], [Armstrong, 1997], [Cotnoir, 2013]). At any rate, my interest here is not in the metaphysical problem *per se*. It suffices to notice that all solutions either endorse some contentious mereological position, as just mentioned, or recognize some form of vagueness, being it either in objects themselves (see e.g. [van Inwagen, 1990]) or in our representations of objects (when the problem is taken as an epistemological or semantic issue, e.g. [Russell, 1923] and [Dummett, 1975]). Given the status of the debate about The Problem of the Many, we can take its upshot for an inflationary view of reference as still a pressing problem.

A remark is in order. Of course, there is some intuitive appeal to think about reference as correspondence. In a pre-philosophical mind set, we might think that language adheres somehow to the world and is able to express facts about the world and the objects that populate it. This intuition has been turned into a proper philosophical view which argues for some sort of semantic relations between words and objects. For example, such a position underlies one traditional understanding of truth. Truth is thought of as a relational property between sentences (or proposition) and some facts in the world. One way to spell out what kind of relational property truth may be is indeed in terms of correspondence. When it comes to reference, correspondence captures the intuitive idea that language is an effective means to talk about things. Hence, it would be reasonable to conclude that reference is in fact correspondence. However, the uncomfortable point raised by the Problem of the Many is that the relation between objects and language is trickier to deal with than initially thought and that our intuitive appeal to correspondence does not work. If ‘Kilimanjaro’ cannot be unequivocally ascribed to exactly one object, then it means that the purported correspondence relation - i.e. reference - it bears to something in the world fails to do its job properly. To repeat, the word ‘Kilimanjaro’ would not refer at all given the inflationist conception. As this seems to be an altogether counter-intuitive conclusion, it might rather suggest that we should rethink our notion of reference.

2 The deflationist view

In this chapter I will present and, to some extent, defend a deflationist view about reference. To begin with, I shall make clear why a certain stance about a notion is called deflationist (or, at least, why a certain stance about a notion is called deflationist, according to my view). It may be better to deal with this issue by talking about a concrete example. Consider the notion of truth. A traditional question about truth is what truth is. A traditional answer to this question is that truth is some kind of relational property between sentences or propositions and some worldly item, e.g. facts. Such a property might be explicated as a correspondence between sentences or propositions and facts. However, one may spell out what kind of property truth is in very different ways. The main point is that, traditionally, the important question about truth has been *what* truth is. In contrast, deflationism about truth is a cluster of views or theories which "devalues" the "essentialist" question about truth - what truth is - by claiming that truth is not a property in need of a metaphysical investigation. In Paul Horwich's words, truth is not «the name of some baffling ingredient of nature» (see [Horwich, 1998b, p. 20]). Rather, it is a predicate which fulfils some logical role in language (in a sense that will be made clearer below) and *nothing more* than that. Therefore, a deflationist view about truth is a position which claims that the real question about truth is not what truth is, but rather why we need truth talk (i.e. what the purpose of having truth in a language is).

To put it in more general terms, a deflationist position about a notion claims that the question about the nature of this notion (what is it?) is not the relevant question and it is misleading. The real question to be asked is about the function of the notion at issue in our language. Thus, a position about some notion is said to be deflationist because it "deflates" that notion. It does so because it deprives the "essentialist" question of its traditional value, while focusing on issues which do not have any immediate metaphysical "flavour".¹ A deflationist position about some notion is also a metaphysical position because it denies the need of a metaphysical

¹Schiffer has a somehow similar view in [Schiffer, 2017].

2 *The deflationist view*

investigation into that notion, in the same way as Horwich claims that truth does not name a baffling ingredient of reality.

In short, deflationism about a notion is a position about that notion which (i) moves the focus from the question about what this notion is to the question about what this notion is useful for in a language and (ii) "deflates" this notion (or, if one prefers, devalues this notion) from the metaphysical point of view as a consequence of (i) ((i) and (ii) may distinguish two kinds of deflationist views, as I shall discuss later on). Thus, deflationism is rather a stance about the kind of questions that we need to ask in order to study some notions. That is, deflationism might be seen as a meta-philosophical position.

Before I discuss deflationism about reference, I shall introduce deflationism about truth. An excursus on deflationism about truth may serve different purposes. First of all, deflationism about truth has received a great deal of attention in recent years and deflationist views about truth have been worked out in more detail, when compared with deflationist views about reference. Thus, exploring deflationism about truth may illuminate what deflationism about reference may mean and can pave the way for a proper understanding of the latter. Secondly, some deflationist theories of truth extend quite naturally to deflationist theories of reference.

In the first section, I will discuss deflationism about truth. In particular, I will present the two main claims which are common to any deflationist theory about truth. One claim is about the function of truth in a language. The other is about the metaphysical status of truth. That is, truth is a non-substantial or insubstantial notion (I will make clearer what 'substantial' stands for). Then, I will introduce the two main deflationist theories about truth: disquotationalism (see [Field, 2001, ch. 4]) and minimalism (see [Horwich, 1998b]). Such theories differ mainly in the choice of truth bearers (sentences or propositions). In the second section, I will deal with deflationism about reference. In doing so, I will closely rely on the previous section. Indeed, I will claim that there are two main claims which are common to any deflationist position about reference. Again, the former is about the function of reference in a language. The latter is about the metaphysical status of reference (again, the claim will be that reference is a non-substantial notion). I will proceed to discuss an extension of both disquotationalism and minimalism to the notion of reference. I will conclude by suggesting a possible direction available to a deflationist about reference in order to deal with the Platonic or metasemantic question (i.e. how it comes that word refer to the objects they do refer).

2.1 Deflationism about truth

To begin with, I will focus on deflationism about truth as a general approach to the enquiry on the notion of truth. In other words, I will give a picture of how a deflationist view about truth may look like: the core theses and the features which are common to different deflationist theories of truth. Then, I will discuss some ways in which the main claims can be spelled out, which give rise to different deflationist theories of truth. To anticipate, one can opt either for sentences or for propositions as the selected truth-bearers. This is not a neutral choice as the resulting theories may look very different, with respective virtues and vices.

2.1.1 Two core claims

A preliminary remark is in order. In [Azzouni, 2006, pp. 13-19], Azzouni makes an interesting distinction between theories of ‘true’ and theories of truth. The former are supposed to be theories about a piece of language, in particular the predicate ‘is true’ and its role in a language. The latter are supposed to be theories about the property of being true. As it turns out, this distinction brings about two diverse and partially independent types of deflationism. One may be a deflationist about the role of ‘true’ in the language and still think that there is something more to find out about the metaphysics of truth, that is, the nature of the property of being true (or for short the nature of truth). Alternatively, one may think that truth has no underlying nature at all and no metaphysical investigation is required to disclosed what truth is. In other words, one may take that all there is to truth is its function in a language.

Typically, a deflationist about ‘true’ will maintain that the predicate ‘is true’ is governed by some equivalence schema, whose instances are equivalences between non-paradoxical sentences (or propositions) and the ascription of truth to those sentences (or propositions). Hence, such schema gives the extension of the predicate ‘is true’. Accordingly, Azzouni calls such a deflationist a *biconditional truth deflationist* (BTDist). A deflationist who also denies any metaphysical weight to the notion of truth is a *metaphysical deflationist* (MTDist). Note that this means that a MTDist will be also BTDist in that she also submits that the predicate ‘is true’ is governed by some equivalence schema. On the other hand, a BTDist is neutral with respect to any metaphysical view about truth. As mentioned above, a BTDist may opt for a theory of truth which takes this notion to be e.g. a relational property between sentences (or propositions) and entities in the world (e.g. facts). Such a relation

2 The deflationist view

may be spelled out in terms of correspondence between a sentence (or proposition) and a fact. Alternatively, a BTDist may also endorse a theory of truth which is akin to MTDism.

The difference between BTDis and MTDism helps to distinguish two core theses of deflationism about truth as a whole, which again turn out to be independent claims. The first of such theses concerns the purpose of having the truth predicate in a language. Roughly, the function of the truth predicate is spelled out as a logico-linguistic function. It allows us to quantify into sentence position in the setting of first-order languages and express some general claims that would be hard to express otherwise. For example, suppose one wants to express in a formal language that all sentences of the form $\phi \vee \neg\phi$ are true (see [Picollo and Schindler, 2018, p. 335]). In a language with a sentential quantifier and sentential variables $\alpha_1, \dots, \alpha_i$, one can say:

$$\forall\alpha(\alpha \vee \neg\alpha) \tag{2.1}$$

However, the truth predicate allows us to express the same thing in a first-order language:

$$\forall x(T(x) \vee \neg T(x)) \tag{2.2}$$

2.2 express a *general* truth about sentences. The truth predicate allows us to express such general facts.

The second thesis is a claim about the metaphysics of truth: truth is a non-substantial property or, as it were, truth is a thin property, hence, there is no point in wondering *what* truth is. As should be clear, the former thesis pertains to BTDis, while the latter is the additional claim that a MTDist typically holds. Let us consider them in some more detail.

The truth predicate as a logical device

A BTDist aims to account for the role of the predicate ‘is true’ in a language. According to her, the extension of this predicate is given by an equivalence schema either of the form

$$'p' \text{ is true iff } p \quad (2.3)$$

where ' p ' is a placeholder for a declarative sentence of English, or

$$\text{The proposition that } p \text{ is true iff } p \quad (2.4)$$

where propositions are selected as truth bearers (as anticipated, the choice will be of far-reaching consequences). To emphasize again, the attention is restricted to non-paradoxical sentences (or propositions), that is, the ones which do not give rise to liar-like paradoxes.²

Thus, exactly as for any other predicate, we can single out the extension of the truth predicate and this is done by means of some form of equivalence schema. The objects to which the truth predicate applies are sentences or propositions. Now, why should we need such a predicate in a language? Note that in formal languages one can quantify into sentence position just in case one employs higher-order language quantifiers (i.e. languages with sentential variables and quantifiers binding such variables). By contrast, first-order languages and (arguably) natural language[?] are similar in that there is no form of quantification into sentence position. Now, consider these sentences

$$\text{Everything Trump said is true} \quad (2.5)$$

$$\text{Every sentence of the form 'p or not p' is true} \quad (2.6)$$

In the first case (sentence 2.5), we have a finite truth ascription, that is, there is a finite amount of sentences which are said to be true. In addition, 2.5 is also said to be an instance of blind endorsement, i.e. a case in which we do not need to know what Trump said and nevertheless we can endorse whatever he said. In the second case

²According to Horwich, this means that we should exclude a set of instances of the T-scheme / equivalence scheme and this set must be as small as possible (see [Horwich, 1998b, p. 42]). As shown in [McGee, 1992], Horwich's suggestion does not lead to satisfactory solution from a formal point of view. For a solution to the liar paradox see [Kripke, 1975]. For other solutions to the liar paradox see [Beall et al., 2020].

2 The deflationist view

(sentence 2.6), we have an infinite number of sentences which are said to be true. In both cases, we have a *general* statement about *sentences*. Deflationists about ‘true’ claim that the truth predicate serves the purpose of mimicking quantification into sentence or predicate position in the framework of a first-order language. In other words, ‘true’ is similar to a higher-order quantifier.³ Hence, we can state, say, in natural language sentences like 2.5 and 2.6.

Sometimes, deflationist theorists of ‘true’ want to make a similar point by claiming that sentences like 2.5 and 2.6 express long conjunctions - which in case of 2.6 would be infinite. According to this view, the truth predicate is a logical device to get a condensed version of such conjunctions (an infinite conjunction would be even impossible in natural language and in standard languages of first- and second-order logic). For example, 2.6 would express that

$$[\text{if } S_1 = \text{‘}p_1 \text{ or not } p_1\text{’ then } S_1] \text{ and } [\text{if } S_2 = \text{‘}p_2 \text{ or not } p_2\text{’ then } S_2] \text{ and } \dots \quad (2.7)$$

However, as [Picollo and Schindler, 2018] remark, this analysis of sentences like 2.6 is misleading. Although an infinite conjunction might be equivalent to the corresponding general statement in the sense that they have the same truth conditions, they do not have the same inferential behaviour. However, if one sentence expresses another sentence, then one would expect that they must display a similar inferential behaviour. One can conclude a (infinite) conjunction from an infinite set of sentences. However, one cannot conclude a general statement from the same set. One way to see why it is the case is the following. Take for example the sentence $\forall x\phi(x)$ and an infinite set of instances $\phi(a), \phi(b), \dots$. Even if we assume that we have a name for all objects in a given domain, the generalization would not follow logically from such a set. Indeed, there might be different interpretations and in some models there might be more objects in the domain for which ϕ does not hold. Therefore, in general one cannot conclude $\forall x\phi(x)$ from $\phi(a), \phi(b), \dots$. Hence, the truth predicate can be said to be a means to generalize into sentence position (given a first-order language), but it is not accurate to claim that such generalizations express infinite conjunctions.

In a nutshell, a BTDist, who is interested in providing an account of the role of the truth predicate in a language, claims that truth allows quantification into

³The insight goes back to [Quine, 1970]. See also [Azzouni, 2006] and [Picollo and Schindler, 2018] among others. [Picollo and Schindler, 2018] also show that indeed a theory in a language with sentential or predicate quantifiers is translatable in a first-order language with a disquotational truth predicate.

sentence position without the need of sentential quantifiers. That said, viewing the truth predicate as an expressive device does not rule out by itself theories about *truth* which take this notion as in need of some kind of deeper metaphysical investigations.

The lightness of truth

The claim that the function of the truth predicate is the one of an expressive-logical device is coupled by MTDists with the claim that truth is light or that truth has no metaphysical weight (see for example [Horsten, 2011, ch. 10]). This is a slogan which both deflationist and inflationist theorists of truth have adopted in order to suggest what is peculiar to a deflationist view about truth. A way to make sense of such a slogan is to say that the property denoted by the truth predicate is a *non-substantial* property. By contrast, an inflationist theory of truth would maintain that truth is substantial in fact. Thus, the issue is how to spell out the distinction between substantial and insubstantial properties. I will consider some proposals one can find in the relevant literature and discuss which might make more sense from the deflationist point of view.

Opacity vs. Transparency. A number of philosophers have advanced the proposal of understanding the claim that truth is a non-substantial property as meaning that truth is *metaphysically transparent* (see [Wright, 2001], [Lynch, 2009], and [Damjanovic, 2005]). For example, Lynch writes:

... the best way of characterising deflationism's metaphysical commitments is to say that according to deflationism, truth is a metaphysically transparent property. Metaphysically transparent properties have no underlying nature that isn't revealed in our grasp of the concept; grasping the relevant concept tells us the whole, or real essence of the property. ([Lynch, 2009, p. 116])

By contrast, opaque properties are those whose nature is not fully disclosed by the mere grasping of the ordinary concept we associate with those properties. Supposedly, an example of opaque property is the property of being water. Our ordinary concept of water is that of a transparent liquid which we find in seas and rivers, it is needed for the survival of living beings and so on. However, having the property of being water requires more: it requires that the chemical composition of the object to which it is applied is H_2O . On the other hand, a property like being a conjunction is fully revealed by our ordinary concept of conjunction: a conjunctive sentence

2 The deflationist view

(or proposition) is true if each of its conjuncts is true. According to the opaque / transparent understanding of substantial / insubstantial properties, a deflationist is supposed to say that the property of being true is more akin to the property of being a conjunction than to the property of being water.

However, an obvious objection to the present proposal (which is found for example in [Edwards, 2013]) is the following. The classification of properties into opaque and transparent ones appeals to epistemic facts. Although this is not a problem by itself, the particular kind of epistemic facts called on - our grasp of the concepts corresponding to properties - cannot be of any use to mark any metaphysical difference among properties. Take again the example of water. It is easy to think (if it is not even already the case) that the ordinary concept of water may be expanded to include the fact that something is water just in case its chemical composition is described by the chemical formula H_2O . Accordingly, the property of being water would be a transparent one after all. We now face a dilemma. Either properties shift their metaphysical status from opaque to transparent, i.e. from substantial to insubstantial, as we improve our grasp of the corresponding concept. Or facts about our ability in grasping ordinary concepts corresponding to properties does not say anything about the metaphysical status of properties (i.e. whether or not a given property is substantial / insubstantial). I suggest to endorse the second horn of the dilemma, since the first one seems not easy to defend. Therefore, characterizing the contrast between substantial and insubstantial properties in terms of opacity / transparency does not really help in illuminating what the deflationist might mean when she says that truth is insubstantial.

Constitution or Definability. Another option suggested by some other philosophers is to understand the insubstantial / substantial distinction in terms of constitution (see [Horwich, 1998b, p. 143]). That is, a property is said to be substantial if it can be given a definition that discloses the nature of such a property - indeed, its constitution. A property is insubstantial otherwise. In other words, for a property to be substantial it must be possible to write down something of the following form

$$x \text{ is } F =_{\text{def}} x \text{ is } G \tag{2.8}$$

where F is the property we want to define and G is whatever constitutes such a property. According to this criterion, a deflationist claiming that truth is insubstantial must be taken as claiming that there is no such definition which uncovers

the nature of truth. That is, she is denying the possibility of finding any term to substitute for G in 2.8 to obtain a definition of the property of being true.

The proposal to spell out the dichotomy between substantial and insubstantial properties in terms of definability faces an immediate objection. For example, we have already seen that it is possible to conceive of reference as a primitive notion and still claim that reference is substantial in that it is identified with some correspondence relation which is not further reducible. Likewise, there is no reason to dismiss on the basis of a criterion for substantiality the possibility that truth is a primitive property, still claimed to be very different from the kind of property the deflationist has in mind.⁴

No explanatory role. A third way to spell out the distinction between substantial and insubstantial properties is to look at predicates corresponding to those properties and see what kind of role they play when they figure in explanations of some phenomena. The more crucial such a role is the more substantial the property may be claimed to be. For example, consider the predicate ‘is negatively charged’. If one aims to explain, say, why water molecules have two atoms of hydrogen and one atom of oxygen, then one may say: "Hydrogen atoms are positively charged, since they have one proton in the nucleus and no electrons. Oxygen atoms are negatively charged, since the number of their electrons exceeds by two the number of protons in the nucleus. Therefore, a molecule of water needs two hydrogen atoms and one of oxygen to be stable". In such a story, telling why water has the chemical structure it has, the fact that the predicate ‘is negatively charged’ is applied to oxygen - likewise, that ‘is positively charged’ is applied to protons - seems to play the main role in providing us with an explanation of the phenomenon we are considering. Thus, according to the explanatory-role criterion for substantiality, the corresponding property of being negatively charged must be taken as a substantial property.

When it comes to truth, the deflationist may claim that the truth predicate plays no explanatory role, or in other words it does not play any role except for the one which is connected to its function as a logic-expressive device (see for example [Horwich, 1998b, p. 4]). Hence, the property of being true is insubstantial. A *prima facie* objection to this claim is that truth seems to play a key role in explaining, for example, why some beliefs lead to successful behaviours (see [Field, 1972] and

⁴A similar criticism is advanced by [Edwards, 2013], where the author observes that primitivist views of truth have been endorsed by [Davidson, 1999], [Russell, 1903] and [Russell, 1904], who are not deflationists.

2 The deflationist view

[Putnam, 1978]). Indeed, we may consider as a law-like principle the following statement

$$\text{True beliefs lead to successful behaviours} \quad (2.9)$$

and we may doubt that truth is there just as a logical device, since it seems that the fact that some beliefs turn out to be true explains why some behaviours turn out to be successful (meaning that e.g. you reach a certain goal). In [Horwich, 1998b, ch. 3], Horwich has defended the claim that truth does not play any real explanatory role in a statement such as 2.9. The suggestion is that 2.9 is in fact equivalent to the set of all instances of the form

$$\text{If } B_a(p) \text{ and } p, \text{ then } a \text{ is successful in getting goal } g \quad (2.10)$$

where a is an agent, B_a is the operator for belief relativized to agent a and p a sentence (or proposition) believed by a . Since in 2.10 the truth predicate does not appear at all, we may conclude that truth in 2.9 just serves the purpose of making such a general claim. Indeed, this line of reply would be in accordance with the function that deflationists assign to the truth predicate, i.e. its role as something like a higher-order quantifier. Whether or not this reply really works might still be a matter of controversy. For example, in [Gupta, 1993] the author claims that, even if the 2.9 and the set of all instances like 2.10 are equivalent, this is not enough to say that they have the same explanatory power.⁵ However, it is not my interest here to get deeper in such a specific debate. Assuming that Horwich's idea works out, it would seem that the no-explanatory-role criterion is the most promising way to cash out the distinction between substantial and insubstantial properties. It should be noted that here we have been talking about *predicates* having some or other explanatory role and any conclusion about the status of the corresponding

⁵ An objection similar to the one we have just considered is the critique that deflationism about truth cannot be combined with a truth-conditional theory of meaning. A truth-conditional theory of meaning aims to explain meaning (e.g. the meaning of a sentence) through truth-conditions (e.g. the conditions specifying when a sentence is true). The claim is that deflationists need to find an alternative theory of meaning, since any use of the truth predicate to explain meaning would *ipso facto* assign to truth some explanatory role. This objection has even led some to offer as a criterion for a substantial theory of truth the requirement that such a theory be not dependent on a previous theory of meaning. (See [Patterson, 2003]. On the compatibility between deflationism about truth and truth-conditional theories of meaning see [Horisk, 2008]).

properties is just derivative. This will become important in the next paragraph.

From properties to predicates. I will propose an ultimate solution to the problem of understanding the distinction between substantial and insubstantial properties, which is suggested by the last remark in the previous paragraph. That is, one may not focus on properties anymore and stick to the difference in the explanatory role that predicates play.

This option makes sense for a deflationist about truth who is also a deflationist about properties. Roughly, a deflationist about properties maintains that properties are "shadows" of predicates. More explicitly, she would claim that, as truth is similar to a higher-order quantifier in that it allows us to quantify into sentence position in the framework of first-order languages, properties are a means to quantify into predicate position (in first-order languages).⁶ For example, consider the sentence

There is a property which Trump and Merkel share (2.11)

In order to express 2.11 in a formal language, we may write an existential statement of the form

$$\exists P(P(\textit{Trump}) \wedge P(\textit{Merkel})) \tag{2.12}$$

where P is a second-order variable. Where second- (or higher-)order quantification is not available, we can use property talk to enrich the expressive power of the language. Moreover, a further similarity with truth would be, at least according to [Båve, 2015], that also property talk is governed by some equivalence between an object a satisfying some predicate F and the ascription of the F -ness property to a (that is $Fa \Leftrightarrow F\text{-ness is a property of } a$).

Given a deflationist view about properties, the focus of any discussion about how to classify properties is on predicates. It may still make sense to talk about substantial or insubstantial properties. However, properties would not be relevant anymore. The distinction between substantial and insubstantial properties would be spelled out just in terms of features of predicates and the no-explanatory-role criterion is the best option we found to accomplish this goal. Those who take truth

⁶A view along this lines has been defended by [Hofweber, 2016] and [Båve, 2015] and has been suggested in [Picollo and Schindler, 2018]

to be more than deflationary would say that the truth predicate has some effective role in explanations, which goes beyond its generalizing function. A deflationist about truth would claim that the truth predicate does not play any explanatory role but its logico-linguistic one.

2.1.2 Two deflationist approaches to truth

I now briefly present two main ways in which a deflationist view about truth may be further spelled out, since they naturally extend to reference as we shall see later on. I will discuss Field's disquotational approach and Horwich's minimal theory of truth.⁷ As anticipated above, a crucial choice concerns which truth bearer one selects for her position. Opting for sentences (disquotationalism) or for propositions (minimalism) is not neutral. For example, one problem faced by those who takes sentences as truth bearers is the following. Consider the sentence 'snow is white'. According to the T-scheme

$$\text{'snow is white' is true iff snow is white} \quad (2.13)$$

the truth predicate is applied to a sentence *in English*. Thus, the truth predicate is somehow relativized to a specific language. However, one may wish to talk about the truth of sentences of a foreign language. For example, one may want to state that, say, in Italian

$$\text{'la neve è bianca' is true iff snow is white} \quad (2.14)$$

which requires an antecedent translation of the sentence 'la neve è bianca'. Whether or not this is a problem for the deflationist, propositions avoid this further requirement since the same proposition is expressed by both 'snow is white' and 'la neve è bianca' - and any sentence of any other language with the same meaning.

Another issue caused by dealing with sentences concerns the modal status of the instances of the T-scheme. In fact, it is sometimes claimed that a deflationist position about truth requires instances of the chosen equivalent scheme to be necessarily

⁷To be sure, a third well-known deflationist approach to truth is Grover's prosententialism (see [Grover et al., 1975] and [Grover, 1992]). Despite its importance, I will not consider prosentential approaches to truth. I chose to discuss just disquotationalism and minimalism, since they are the most debated in recent years.

true. When sentences are picked as truth bearers, we have that instances of the T-scheme like 2.13 are required to be necessarily true. However, it might well have been the case that ‘snow is white’ meant something else, say, grass is green. In such a case, ‘snow is white’ would not be true iff snow were white. Hence, the instances of the T-scheme cannot be necessary. Having propositions as truth bearers is claimed to solve this problem. The proposition that snow is white, say, would always be true just in case snow is white, no matter which sentence came to express that proposition.

On the other hand, also the choice of propositions as the selected truth bearers is not devoid of problems for the deflationist. For example, one of the main challenges for the deflationist who chooses propositions as truth bearers is to give a theory of propositions without appealing to truth (see the objection raised against the compatibility of deflationism and a truth-conditional theory of meaning in footnote 5 in sec. "No-explanatory role", footnote 5).

Let us now examine in more detail Field’s disquotational approach and Horwich’s minimal theory of truth.

Field’s disquotational approach

Consider again the T-scheme

$$‘p’ \text{ is true iff } p \tag{2.15}$$

A disquotational approach to truth, which is a version of deflationism, takes the truth predicate to be applied to sentences. This approach originated with [Quine, 1970]. On the left-hand side, we have a *name* for a sentence obtained by using quotation marks and on the right-hand side we have the disquoted sentence. The two wings are equivalent in that asserting "‘p’ is true" is no more than asserting "p".

In [Field, 2001, ch. 4], Fields refines the general disquotational approach in at least three respects. First of all, he does not take sentences as truth bearers, or, more precisely, he does not take sentence types as truth bearers. Rather, his version of the T-scheme has that for any *utterance* u , the claim that u is true is equivalent to u . More generally, we might say that truth is applied to sentence tokens, despite utterances being a species of the genre. Secondly, truth is applied just to utterances we *can understand*. This means that when an utterance u is said to be true, what is really claimed is that u is true-as-the-speaker-understand-it. Accordingly, the right-

2 The deflationist view

and the left-hand side of the T-scheme are said to be equivalent in the sense that they are *cognitively equivalent* for the speaker. Cognitive equivalence is spelled out as the interchangeability of each side of the T-scheme in a reasoning carried out by the speaker. In Field's words,

... to call two sentences that a person understands 'cognitively equivalent' for that person is to say that the person's inferential procedures license a fairly direct inference from any sentence containing an occurrence of one to the corresponding sentence with an occurrence of the other substituted for it; with the stipulation, of course, that the occurrence to be substituted for is not within the context of quotation marks or an intentional attitude construction. ([Field, 2001, ch. 4, p. 106])

Recalling Azzouni's distinction between Biconditional Truth Deflationism and Metaphysical truth Deflationism, Field can be surely seen as a supporter of the former, even though it is not immediately clear that he also endorses the latter.⁸

The first feature we should notice of the pure disquotational notion of truth - as Field calls it - is that it gives a straightforward way to reply to one of the challenges the choice of sentences as truth bearers poses. In particular, the worry that instances of the T-scheme cannot be necessarily true vanishes insofar as we recognize that the claim that *u* is true would be always equivalent to *u*, no matter how differently we would use the words involved. That is, the pure disquotational notion of truth is *use-independent*, as Field puts it. To see this, consider an utterance of 'snow is white'. Now, suppose there is a world where such an utterance is used in the same way as an utterance of 'grass is green' is actually used. Given that '*u* is true' really means '*u* is true-as-I-(the speaker)-understand-it', we still would have had that an utterance of 'snow is white' is true-as-we-understand-it just in case snow is white. In other words, linking the disquotational truth of an utterance to how the speaker understands it mimics somehow the way propositions are supposed to work - the same proposition might be expressed by different sentences. On the other hand, in a world where 'snow is white' is used as 'grass is green' is actually used, an utterance of 'snow is white' would be *translated* (in actual English) in such a way that the right-hand side of the relative instance of the T-scheme would be that grass is green.

The kind of translation Field has in mind, which also solves the problem of ascribing truth to utterances of foreign languages (which we may not understand), does not

⁸Indeed, in [Field, 2001, ch. 4], he talks about a *methodological* deflationism, meaning that one should start with a deflationist approach but she should also be open to the possibility of inflating her notion of truth, if it is required.

have anything to do with semantic notions such as synonymy. In fact, the standard idea of a translation, where one searches for sentences of her home language which have the same meaning of given sentences of a foreign language, may seem suspicious in the context of a deflationary view of truth. The very idea of sentences having the same truth conditions may be involved, which is something a deflationist should avoid as long as truth conditions are understood in the traditional way. Rather, the kind of translation appealed to by Field is one where, given an utterance u of a foreign language, we find a sentence in English which *we understand* and which is the best translation given the context in which u is uttered. If such a sentence is disquotationally true, then u is disquotationally true. For example, if someone uttered the sentence (a) ‘la neve è bianca’ (where ‘bianca’ typically stands for ‘white’), given a context in which speakers are discussing the features of a winter landscape, then a translation of (a) as ‘Snow is cold’ would not be the best according to the purpose of making sense of (a) in English given its context of utterance. Therefore, there is no correct or incorrect translation, rather there is a spectrum of possible translations from the worst to the best relative to a context. To return to the case of a "counterfactual" English (i.e. where ‘snow is white’ means that grass is green), such a language might be seen as just a peculiar case of a foreign language.

Thus, Field’s disquotational approach is a concrete example of a deflationist view about truth, which opts to take sentences as truth bearers (sentence tokens) and deals with the main problems caused by this choice. As we will see later on, Field’s disquotational approach can be extended to reference as well.

Horwich’s Minimalist Theory

In [Horwich, 1998b], Horwich presents his Minimal Theory of truth (MT), where he selects propositions as truth bearers. The axioms of MT are propositions of the form

$$\langle\langle p \rangle \text{ is true iff } p \rangle \tag{2.16}$$

where ‘ p ’ is a schematic variable or placeholder for a sentence. Let us call E^* the propositional structure given in 2.16, as Horwich does. To give an example, take the sentence ‘snow is white’ and consider the proposition expressed by this sentence, that is, $\langle \text{snow is white} \rangle$. Then, the following proposition is an axiom of MT

$$\langle\langle \text{snow is white} \rangle \text{ iff snow is white} \rangle \quad (2.17)$$

The main claim of Horwich is that a theory about truth and *nothing but truth* is given by the infinite list of instances of E^* .⁹ All facts about truth can be explained by MT *in combination with* theories of other phenomena. More generally, as Horwich puts it,

We have to locate the most basic facts regarding X, from which all the others may be explained. Of course we don't expect our theory of X to do the explanatory work all by itself. It does not follow solely from the theory of electrons that electrons are smaller than elephants; we need a theory of elephants too. Our goal, then, is to find a simple theory of X, which, together with our theories of other matters, will engender all the facts. ([Horwich, 1998b, p. 24])

For example, arithmetical truths are explained by MT in combination with Peano Arithmetic (PA). For this reason, Horwich's theory is called 'minimal'.

It is important to note that Horwich's minimalism is intended to be *both* a theory about 'true' and a theory about truth - the property of being true. Once more, recall Azzouni's distinction between BTDis and MTDis. As a theory about 'true', minimalism conforms to BTDis. As a theory about truth, minimalism conforms to MTDis in that it is claimed that the axioms of MT are all there is to say about truth.

A remark is in order with respect to the role played by propositions in MT. In general, a deflationist who chooses propositions as truth bearers faces the challenge of defining what propositions are without appealing to truth. In other words, truth should not play any role which is beyond its function of mimicking higher-order quantification. For example, a possible objection is that such a deflationist cannot make use of possible world semantics in order to define propositions (see [Horisk et al., 2000]). To give an example, she cannot say that the proposition, say, that snow is white is the set of possible worlds where the sentence 'snow is white' is true (as for example Stalnaker claims in [Stalnaker, 1984]). For suppose she says so. Then, take the relevant instance of the equivalence scheme E^* , which is

⁹As [Button, 2014] points out, there is a problem with Horwich's characterization of MT - it only provides a minimal axiom for those propositions that are expressible by a sentence in our language. I will come back to this problem later on, when I consider Horwich's minimalism about reference.

$\langle\langle \text{snow is white} \rangle \text{ iff snow is white} \rangle$. Given that propositions are defined as the set of possible worlds where they are true, in fact our deflationist is saying: the proposition that snow is white is true just in case the world of evaluation belongs to the set of worlds where the sentence ‘snow is white’ is true. Truth appears in both wings of the biconditional at issue, hence, it is not clear what the purpose of the equivalence scheme would be. Of course, this objection to the use of possible world semantics to define propositions might not be conclusive for the deflationist who chooses propositions as truth bearers. On the other hand, the strategy to get around such an objection might not be straightforward and she might prefer to opt for an altogether different way. This is indeed Horwich’s choice.

In a footnote, Horwich emphasizes that «although the minimal theory characterizes truth in terms of propositions, it is not a joint theory of these two phenomena; for we can give a prior theory of propositions which makes no reference to truth» ([Horwich, 1998b, ch. 2, p. 25 footnote 8]). The way he spells out such a theory of propositions is in terms of a use theory of meaning. For example, the proposition that snow is white is a function of the propositional constituents expressed by the words, ‘snow’, ‘is white’. Such propositional constituents are the *meanings* of those words (see [Horwich, 1998a, 83]). Meanings of words are explained in terms of their use. For instance, the meaning of the word ‘snow’ is explained in terms of the disposition of speakers to apply the word ‘snow’ to snow (see [Horwich, 1998a, p. 45]). In short, propositions depend on their propositional constituents. Since propositional constituents are meanings and meanings are explained by the use of the words which express them, propositions are given in terms of use.

Thus, Horwich’s minimalism is an alternative to Field’s disquotationalism in that it takes propositions as truth bearers. This move solves problems arising from having sentences as truth bearers. On the other hand, it has its own costs. I will not decide here for one or the other approach. Rather, they are both interesting as they are easily extendable to reference.

2.2 Deflationism about reference

I will now turn to discuss deflationism about reference. The Problem of the Many shows that, given the inflationist conception of reference, we are led to conclude that names do not refer at all. A deflationist view of reference is an alternative which avoids this problem. In order to give a rough idea of what I take to be a deflationist view about reference, recall the distinction between the "essentialist" question - *what*

2 The deflationist view

reference is - and the Platonic or metasemantic question - how reference is fixed (i.e. how the connection between a word and a part of the world is established). As I see it, a supporter of deflationism about reference should maintain that (i) the "essentialist" question is misleading, since reference does not have an underlying nature; (ii) that the Platonic or metasemantic question is no relevant in order to understand the notion of reference (see [Horwich, 1998a, ch. 5]), even though a reply to the Platonic or metasemantic question will be part of a theory of names; (iii) that the important question is *why* we have the notion of reference in a language (what its purpose in a language is).

I will discuss (i) and (iii) in a similar way as I discussed truth. That is, I will argue that any deflationist about reference should adhere to two core claims: (a) the concept of reference has a logico-expressive role and (b) this is the *only* role of the concept of reference, hence, reference is not a substantial notion (according to the no-explanatory-role criterion for substantiality). Moreover, I will present the disquotational and the minimalist approach to reference, which are extensions of the disquotationalist and the minimalist theories of truth respectively. As to (ii), I will present some ideas for a use theory of names along the lines of [Horwich, 1998a], in order to provide an answer to the Platonic or metasemantic question.

2.2.1 Deflationist views about reference

The core claims

Azzouni's distinction between theories of 'true' and theories of truth also applies to the case of reference. That is, we distinguish between theories of a piece of language (the predicate 'refers' and its role in a language) and theories of reference - the relation between words and objects. As before, this distinction gives rise to two deflationist positions. One may be a deflationist about the role of 'refers' in a language, without being a deflationist about reference. Alternatively, one may add that all there is to reference is its role in a language.

In a similar way as in the case of truth, a deflationist about 'refers' defends (or should defend) that such a predicate is governed by some kind of equivalence schema either of the form

$$\forall x('a' \text{ refers to } x \text{ iff } x=a) \tag{2.18}$$

where 'a' is a name and a and x are objects, or of the form

$$\forall x(\langle a \rangle \text{ refers to } x \text{ iff } x=a) \quad (2.19)$$

where $\langle a \rangle$ is a propositional constituent and a and x are objects as before.¹⁰ In the former case, we have a disquotational schema for reference, whereas in the latter we have an extension of Horwich's minimalism to reference. In both cases, such schemata provide us with a clear condition to say when a name (or a propositional constituent expressed by a name) refers to an object, in the same manner as the T-scheme says when a sentence is true. Let us call deflationism about 'refers' *biconditional reference deflationism* (BRDism). Following again the analogy between truth and reference, a deflationist about reference would submit the BRDism position but would also deny that there is anything more to say about the concept of reference than what is already said by one of the schema above. Let us call deflationism about reference *metaphysical reference deflationism* (MRDism).

The distinction between BRDism and MRDism marks the difference between the two core claims of deflationism about reference as a whole (or what I take to be the two core claims that a deflationist about reference should submit). As anticipated above, one claim is that the concept of reference has a logico-expressive role in a language. The other claim is that reference is not a substantial notion. Assuming that 'substantial' means 'having some explanatory role', the second claim amounts to saying that reference does not play any explanatory role but only a logico-expressive one. Let us look at both theses in some more detail.

Reference as a logical device A deflationist about truth claims that truth is a logical device in order to quantify into sentence position in first-order languages. Likewise, a deflationist about reference claims (or should claim) that the concept of reference is a logical tool with some logico-expressive role in a language. The concept of reference at issue is typically philosophical and is distinguished from the ordinary language concept of reference (i.e. usually we speak of people as referring to something). The philosophical concept of reference is a relation between words and objects, such that a word is about an object.¹¹

¹⁰Strictly speaking, the latter scheme is not the correct formulation of Horwich's minimalist scheme, since he uses *refers** when he talks about propositional constituents. I will come back to this point when I talk about the difference between disquotational and minimalist theories of reference.

¹¹This is pointed out in [Horwich, 1998a, p. 121]. Despite the link between the philosophical concept of reference and aboutness, I will not deal with the latter, as it would be quite a digression from the main topic and would require a chapter in itself. Interestingly, in [Båve, 2009],

2 The deflationist view

Now, what exactly is the logico-expressive role played by the concept of reference in a language? In [Armour-Garb and Woodbridge, 2015], the authors describe it in the following words

[Deflationists about ‘refers’] maintain that perhaps the main reason for having a reference-predicate in a language is that it enables us to generalize over singular-term positions by using variables that range over objects. This might seem surprising, since we already have a device of generalizing over singular-term positions - objectual quantification. Even so, ‘refers’, ‘denotes’, and their cognates still have an important role to play because the contexts in which they are so useful are those that ordinary, objectual quantification cannot deal with, namely, those in which we want to quantify over names that occur *both inside and outside of quotation marks*. ([Armour-Garb and Woodbridge, 2015, p. 193], italics mine)

That is, the concept of reference enables us to quantify over terms position in contexts where names are both *used* and *mentioned*. An example provided by the authors is the following

Everyone the list refers to is a philosopher. (2.20)

To see why this is an example of the logico-expressive role played by the concept of reference in a language, suppose we have instances of the form

$\text{Term}('t') \wedge \text{List}('t') \rightarrow P(t)$ (2.21)

where $\text{Term}(x)$ expresses that x is a term, $\text{List}(x)$ expresses that x is on the list and $P(y)$ expresses that y is a philosopher. While ‘ t ’ is mentioned in the antecedent of the conditional, ‘ t ’ is used in the consequent. If now we want to generalize 2.21, we need a means to quantify over all occurrences of t , those inside and those outside quotation marks. The concept of reference serves precisely this purpose. Indeed, we can write

the author develops a deflationary theory of the ordinary language concept of reference, which reduces reference to aboutness.

$$\forall x(Term(x) \wedge List(x) \rightarrow P(r(x))) \quad (2.22)$$

where r is a function which takes a term and returns the referent of that term.

Another example of the logico-expressive role played by the concept of reference is the following axiom: If x is a term and y is a predicate, then it is true that y applies to x just in case the referent of x is in the extension of y . Formally, we would write

$$\forall x\forall y(Term(x) \wedge Pred(y) \rightarrow (T(appl(y, x)) \leftrightarrow (r(x) \in E(y)))) \quad (2.23)$$

where $Term(x)$ and $Pred(y)$ express that x is a term and y is a predicate symbol respectively. $T(x)$ is the truth predicate and $appl(y, x)$ (applies) is a function which takes a predicate and a term and returns an atomic formula. r is the same function as before (i.e. the reference function) and $E(y)$ is the extension of y .¹² The concept of reference serves again the purpose of quantifying over all occurrences of terms, since when a term is substituted for x , it would occur outside quotation marks in the right-hand side of the biconditional.

In both examples, it is also important to note that, when we talk about concrete terms, the concept of reference can be eliminated. Compare the case of reference with the case of truth. Given the T-scheme (or the equivalence scheme for propositions), saying "‘snow is white’ is true" is equivalent to just saying "snow is white", hence, we do not need the truth predicate at all, when we say, for example, that snow is white or snow is not white. In analogy with truth, if we consider a concrete term, we do not need the concept of reference at all. 2.21 is just an example of this. Likewise, if in 2.23 we instantiate ‘ $\forall x$ ’ to ‘Fido’ and ‘ $\forall y$ ’ to ‘is a dog’, we obtain

$$Term('Fido') \wedge Pred('is a dog') \rightarrow (T(appl('is a dog', 'Fido')) \leftrightarrow (r('Fido') \in E('is a dog')))) \quad (2.24)$$

Clearly, in 2.24 the reference function is not needed, since we can simply substitute ‘Fido’ for ‘ $r('Fido')$ ’.

¹²I would like to thank dr. Thomas Schindler for suggesting me this example.

Reference is not substantial I turn now to discuss the second core claim that I take to be characteristic of deflationism about reference. That is, the claim that the *only* purpose for having the concept of reference in a language is the one illustrated above. There is nothing more to say about the concept of reference beyond what is said by one of the equivalent schemata mentioned above.

A remark is in order. To deny that reference has any "nature" which needs to be investigated is not to deny that there is any such relation of reference (see [Horwich, 1998a, p. 123]). Indeed, as a deflationist about truth may well claim that truth is a property and still be faithful to the deflationist position about truth, so a deflationist about reference can still regard reference as a relation between words and objects. She does deny that such a the concept of reference is more than a logical tool and she claims that a theory of reference based on either the disquotational scheme or the minimalist scheme gives everything there is to say about the concept of reference.

Thus, the claim that reference is not a substantial notion is spelled out as the claim that the concept of reference does not play any other role than a logico-expressive one. When we deal with the truth predicate, the claim that truth does not have any other role than mimicking higher-order quantification is still debated due to the apparent role truth plays e.g. in explaining why true beliefs lead to successful behaviours. As I pointed out above (see paragraph "No explanatory role"), Horwich's reply might not be conclusive. In short, the deflationist position about truth is still vulnerable with respect to the claim that truth has no explanatory role (i.e. that the only role of truth is mimicking higher-order quantification). When it comes to reference, the claim that the only role of the concept of reference is to enable us to quantify over terms position, when names are both used and mentioned (that reference does not have any explanatory role), seems to be less open to objections and easier to defend. Indeed, the reasons in support of a more than deflationary view of reference are linked to the problem of how reference is fixed. For example, according to the causal model of reference, reference is fixed by a chain of communications inside a linguistic community. For a word x and an object y , we need to go back to the "initial baptism" of y , when for the first time y is called by the name x (this is the Kripkean story). Given this picture of how reference is fixed, one may come up with a definition of reference like

$$x \text{ refers to } y \text{ iff there is a chain of communication which links } x \text{ to } y \quad (2.25)$$

According to this definition, the relation of reference is defined in terms of a causal chain linking a word to an object. However, once we distinguish the "essentialist" question - what reference is - from the Platonic or metasemantic question - how reference is fixed - we see that the problem of how reference is fixed is not relevant in order to provide an answer to what reference is (or rather what the concept of reference is). As I shall argue below, the issue about how to fix reference should be dealt with by a theory of names. Such a theory is different from a theory of reference, in the same way as Horwich's theory of propositions is different from his minimalist theory of truth. Accordingly, one may have arguments for one theory of names instead of another, but none of them can be appealed to in order to undermine the claim that reference does not have any other role than its logico-expressive one. Since no other reasons are provided in favour of an inflationary view of reference (at least, as far as I can tell, see [Michaelson and Reimer, 2019, sec. 6].), the burden of providing a reason to reject the deflationist view is on the opponents.

Disquotational or minimal reference

I shall briefly talk now about the difference between the disquotational scheme and the minimal scheme for reference. As expected, the choice depends also on the preference for either the disquotational scheme for truth or the minimalist scheme. That is, the costs and benefits of choosing either the disquotational scheme or the minimalist scheme for reference must be assessed also in view of the costs and benefits of choosing either the disquotational or the minimalist option for truth. I will not deal with the question whether deflationism about reference implies deflationism about truth or vice versa, even though there are some examples in the literature where the former but not the latter is endorsed (see for example [McGee, 2016]. For the relationship among different kinds of deflationism see [Marschall and Schindler, 2020]).

Disquotational approach to reference As mentioned above, a disquotational theory of reference will take the scheme (call it R-scheme)

$$\forall x('a' \text{ refers to } x \text{ iff } x=a) \tag{2.26}$$

as giving all we need to have, in order for the concept of reference to play its logico-expressive role. As the disquotational approach to truth takes sentences as truth bearers, a disquotational approach to reference takes words as referring to objects. Recalling the distinction between BRDism and MRDism introduced above,

2 The deflationist view

a disquotational theory of reference can be just a theory of the predicate ‘refers’ or also a theory about reference, depending on whether one takes all the instances of the R-scheme to be all there is to say about the concept of reference.

The classical objections raised to a disquotational theory of truth, which I briefly mentioned in section 2.1.2, also apply to a disquotational theory of reference. For the R-scheme is also relative to a particular language, hence, we are not able to talk about words of foreign languages and their denotations. Moreover, the instances of the R-scheme are not necessarily true, since what a word means is a contingent matter.

However, it is also easy to see how Field’s disquotational approach to truth, which is able to deal with the problem of the modal status of the instances of the T-scheme and the problem of translation, might be extended to deal with the same issues when it comes to reference. First of all, instead of taking word-types as the linguistic items which refer, we take word-tokens (or, in line with Field’s approach, utterances of words). Then, we might modify the R-scheme in the following way

$$\forall x(\text{‘a’ refers-as-the-speaker-understand-it to } x \text{ iff } x=a) \quad (2.27)$$

Call this scheme R’-scheme. Once again, this move allows us to say that the instances of the R’-scheme are necessarily true. For example, take the instance of the R’-scheme

$$\forall x(\text{‘snow’ refers-as-the-speaker-understand-it to } x \text{ iff } x=\text{snow}) \quad (2.28)$$

Suppose now a world where the word ‘snow’ is used in the same way as actually the word ‘grass’ is used. Given that “‘snow’ refers to snow” really means “‘snow’ refers-as-I(the speaker)-understand-it to snow”, we still would have that 2.29 is true. The problem of translation from foreign languages is also solved by the R’-scheme as the same problem is solved in the case of truth. That is, given a word w of a foreign language, we find a word in English which *we understand* and which is the best translation given the context in which w is uttered. Once again, there is no dichotomy between wrong and correct translations, but rather a spectrum of possible translations more or less suitable to the context of utterance.

Minimalist approach to reference As it was for Horwich's minimalism about truth, also Horwich's minimalism about reference is supposed to be both a theory of 'refers' and a theory of reference - that is, the relation of reference between words and objects. Since in the minimal theory of truth Horwich takes propositions as the selected truth bearers, when it comes to reference he needs to take propositional constituents as referring to objects. Propositional constituents refer* to objects. Horwich takes the scheme

$$\forall x(\langle a \rangle \text{ refers}^* \text{ to } x \text{ iff } x=a) \quad (2.29)$$

to give the meaning of 'refers*'. 'Refers' is then defined in terms of 'refers*'. More precisely, given 2.29, Horwich defines 'refers' as follows

$$w \text{ refers to } x \text{ iff } \exists k (w \text{ expresses } k \text{ and } k \text{ refers}^* \text{ to } x) \quad (2.30)$$

where w is a word, x is an object and k is the propositional constituent expressed by w . Horwich's main claim is that «our meaning [...] of 'refers' it's constituted by our basing its overall use on either [2.29, plus some principles to avoid ambiguity] or [2.30]. [...] Reference* is not grasped by our accepting anything of the form " x refers to y iff x bears r to y "» (see [Horwich, 1998a, p. 120]). In short, a theory of the concept of reference and *nothing but the concept of reference* is given just by the instances of 2.29.

An advantage of the minimal theory of reference is that (as it was for truth) the modal status of the instances of 2.30 is not an issue anymore. For the same propositional constituent may be expressed by different words, in the same way as the same proposition may be expressed by different sentences. As such, the contingency of the meaning of words does not affect the truth of the instances of 2.30. For the same reason, there is no issue with translations from foreign languages.

A remark is in order. In [Button, 2014], the author raises an important challenge to minimalism about reference (which is translated also into a challenge to minimalism about truth). The intended meaning of scheme 2.30 is that the propositional constituent *expressed by a linguistic expression 'a'* refers* to some object x just in case $x = a$. However, we have far less expressions available in a language than we have propositional constituents. For example, Button puts forward real numbers: since they are uncountable, there is not a name for each of them. Consequently,

2 *The deflationist view*

the minimalist theory of reference is not able to specify reference conditions for each propositional constituent. Hence, the minimalist theory of reference is not comprehensive. However, it is desirable to be able to specify each instance of 2.29. Otherwise, Button claims, one can hardly say that all there is to say about reference can be said on the basis of the minimal scheme for reference. For example, in order to explain some general laws like 2.23, one needs to have at the very least all its instances. This requires to have all the instances of 2.29. I do not intend to deal with this problem, since the problem of accounting for general facts about truth and reference from the respective schemata is widely debated. A proper discussion would lead us too far from the main topic, which is a defence of the general deflationist position about reference and how it helps us dealing with indeterminacy of reference. Suffice it to notice that the same issue may not arise if, instead of propositional constituents, we take words (and sentences, when it comes to truth) as the items which refer to objects. For when we consider words and sentences, we might want to talk just about an actual language. On the other hand, by opting for propositional constituents (and propositions), we are considering also entities which may not be expressible in an actual language. Hence, it is reasonable to expect the minimalist to be able to deal with such cases.

2.2.2 **Some ideas for a theory of names**

In this final section of the present chapter, I shall discuss the problem of how reference is fixed (which, recall, corresponds to the Platonic or metasemantic question). Let me start by reminding the reader of a terminological remark pointed out in the introduction. Usually, in a philosophical context the expression ‘fixing the reference of a word’ means that we pick out an object and we say that the given word refers to that object. There seems to be a one-one connection between the word and the object it refers to. By contrast, I will use the expressions ‘fixing the reference of a word’, ‘how reference is fixed’ and similar locutions in a much looser way. It is still suggested that a connection between a word and some part of the world is established. However, such connection need not be a one-one correspondence between a word and an object, but rather a loose link between a word and some "class" of objects. For example, the word ‘rabbit’ may be connected to rabbits, to detached rabbit parts and to manifestations of rabbithood. If one wishes to completely avoid any talk of reference fixing, one may find the expression ‘content-connection’ a suitable substitute, in order to convey the thought that there is some kind of connection between an expression and some part of the world

(see [Armour-Garb and Woodbridge, 2015, p. 47]). I will keep using expressions like ‘fixing the reference of a word’ and ‘how reference is fixed’, but one should bear in mind the intended meaning of these locutions.

The previous remark is linked to a possible way the deflationist can use correspondence talk. As I mentioned in sec. 1.2.1, there is still a sense in which talking about correspondence between words and names might be allowed. More precisely, correspondence talk seems to be useful to describe our linguistic behaviour. For example, we may say that the word ‘tables’ corresponds to tables, meaning that ‘tables’ refers to tables. However, this might well be just a manner of speaking. This specific way of using correspondence talk, which is just a way of saying, is available also to a supporter of a deflationary view of reference. For it points to how reference is fixed (how words come to be connected to some parts of the world), rather than to what the concept of reference is. And a deflationist about reference does not deny the need of a theory of names which specifies how reference is fixed.¹³

To emphasize again, the issue of fixing reference is a problem by itself and it is distinguished by the question about what the concept of reference is. As anticipated in subsec. "Reference is not substantial", the issue concerning how reference is fixed should be included in the broader context of a theory of names. In turn, a theory of names will be also part of a general theory of meaning for complete sentences (in fact, this is Horwich’s goal in [Horwich, 1998a]). However, dealing with theories of meaning in general would lead me too far away from my main topic. I shall confine my discussion to the issue of how reference is fixed, with a use theory of meaning à la Horwich in mind.

As I see it, the relation between a theory of reference and a theory of names is analogous to the relation between Horwich’s theory of truth and his use theory of propositions. That is, we are dealing with different topics which are nevertheless connected. In case of Horwich’s minimalism about truth, the connection is established by the use of propositions as truth bearers, hence, a theory of propositions is somehow presupposed. In case of a theory of reference, and in particular a deflationary theory of reference, such connection is established by the equivalence scheme one chooses as the basis of her theory of reference. For any instance of the disquotational (or minimalist) theory of reference presupposes somehow that the referent of that word is fixed.

I shall now sketch a possible direction in order to provide an answer to the Platonic or metasemantic question (i.e. how it comes that names refer to what they do

¹³A prominent example of such a deflationist is Horwich, in [Horwich, 1998a, p. 124].

2 *The deflationist view*

refer), which is acceptable from a deflationist point of view. As anticipated above, I will follow Horwich and appeal to the usage of words by speakers of a linguistic community to accomplish my goal. However, I will not assume along with Horwich that names have a meaning (see [Horwich, 1998a, p. 25]). Roughly, according to Horwich, it is the meaning of a name which weakly determines its referent. That is, if two names have the same meanings, then their referent will be the same. This does not mean, Horwich claims, that the referent of a name is *explained* by the meaning of that name. Since meanings of names are constituted by some facts concerning the use of those names, we have that the referents of those names are somehow indirectly fixed through their use. I shall leave open the question concerning whether or not names do have meanings. For the issue of how reference is fixed requires much less than such an assumption, provided that we do not follow Horwich in taking propositional constituents as referring to objects. (This is so because in Horwich's theory propositional constituents *are* meanings.)

Thus, the main ingredient that, I submit, fixes the referent of a name is how people use that name. In other words, the referent of a name comes to be the object which people talk about by using that name. This way of fixing reference may be loose enough to still give space to some kind of underdetermination of the referent of a word. The present idea (that use fixes reference) can be spelled out more precisely in various ways, according to the kind of word we are dealing with, e.g. a name for an ordinary middle-sized object, a number term and so on. (Essentially, I am endorsing Horwich's thought that it is hard to find a uniform way to specify how reference is fixed - in Horwich's case, the thought is rather that it is hard to find a unique type of meaning-constituting property for names, see [Horwich, 1998a, p. 128].)

For example, when it comes to names of ordinary middle-sized objects, we might appeal to Kripke's chains of communication inside a linguistic community (see [Horwich, 1998a, p. 129]). It is important to note that, by itself, Kripke's approach to how reference is fixed does not imply the acceptance of an inflationary view about reference. As I emphasized at the very beginning, the causal model of reference sketched by Kripke does not force one to take reference as defined in terms of causation, hence, fixed by an "external" factor which is not our use of words. Rather, such a model is primarily meant to give a picture of how words come to refer to the objects they do refer. As I see it, the answer provided by the causal model (or rather, what it suggests) appeals in a strong way to the usage of words. For one thing, the notion of causation, which is taken to be central in Kripke's sketch, needs not be understood as anything more than the exchange of information about how

a name is used from a member of a linguistic community to another. In this case, the causal model of reference (i.e. the causal model of how reference is fixed) is a viable option for those who take a stand in favour of deflationism about reference. For another thing, the "initial baptism" of an object by a name is nothing but the first time that that a name is used to talk about an object.

In case we deal with numbers terms, e.g. '2', the Kripkean model may not suffice, since numbers are abstract objects, if they are objects at all, and we are not in direct acquaintance with them. In such cases, maybe an option for the deflationist is to appeal to something in the vicinity of the neo-Fregean syntactic priority thesis (SP) (see [Wright, 1983]). Briefly, such thesis holds that (i) if an expression behaves syntactically like a singular term, then it has the semantic function of a singular term; (ii) if an expression that has the semantic function of a singular term occurs in a true extensional statement, then it has a reference and (iii) objects just are what singular terms refer to. For example, the term '2' behaves syntactically as a singular term, e.g. it can occur in identity statements. By (i), '2' has the semantic function of a singular term. '2' also occurs in sentences which are true (or are taken as true), like '2 is a prime number'. By (ii), '2' has a reference and, by (iii), such an object exists. I do not aim at defending SP. The suggestion is simply that, as long as step (ii) of SP involves how singular terms are used (i.e. they are used in statements that are true in virtue of the meaning of the terms involved, and meaning is given through use)¹⁴ and this is enough to determine that they refer, the neo-Fregean strategy may be an example for the deflationist of a way to deal with fixing reference for numbers terms.

A final remark is in order. One may pose the following question. Consider the Kripkean story of how reference is fixed for ordinary middle-sized objects. If an "initial baptism" can be used to fix reference in terms of how people in a linguistic community use the associated terms, then is the Problem of the Many as an argument for referential indeterminacy still a challenge? Recall that a consequence of the Problem of the Many is that there might be more than one object, which are equally good candidates for being the referent of a name, say, 'Kilimanjaro'. The answer to this question is, I submit, *yes*. For one thing, as I mentioned above, reference fixing need not be a procedure by which we establish a one-one connection between a word and an object. For another thing, normally an "initial baptism" of

¹⁴It should be noted though that Horwich rejects truth in virtue of meaning (see [Horwich, 1998a, ch. 6]. We do not need to follow Horwich in this respect. If we do, then another strategy how to deal with number terms must be found. I will not discuss this point further, as it will take us too far away.

2 The deflationist view

an object by a name (which, to repeat, I take to be just the first time that a name is used to talk about that object) does not take into account the task of overcoming a philosophical argument like the Problem of the Many. For example, it seems safe to assume that the name 'Kilimanjaro' was not designed to refer definitely to either the object K_1 or K_2 , when it was used for the first time (let us grant that it is possible to identify such a moment). For this reason, the actual use of the name 'Kilimanjaro' still underdetermines the object we are talking about. One may compare my reply with what Putnam says in [Putnam, 1980, p. 476] with respect to Kripke's theory of reference and his own theory: «These theories assume that individuals can be singled out *for the purpose of a "naming ceremony"* [...]. Thus these theories *did not address the question as to how any term can acquire a determinate reference*» (italics mine).

Of course, it is possible to conceive of the case that, once we are aware of the Problem of the Many, we celebrate a second "initial baptism", where we choose exactly either K_1 or K_2 to be the referent of Kilimanjaro. Despite this being a possibility, it is quite artificial and, as such, the appeal to "initial baptisms" is not sufficient to overcome the Problem of the Many. As I shall argue in the next chapter, the loose way in which the use of words fixes reference is part of the reason why a deflationist view about reference is still compatible with indeterminacy of reference.

3 Deflationism and indeterminacy of reference

In this chapter, I will focus on the relation between deflationism about reference and indeterminacy of reference. In particular, we may still wonder whether or not the former is compatible with the latter.

Prima facie one may be tempted to say that indeterminacy of reference and deflationism about reference are not compatible. After all, referential indeterminacy motivated the move towards deflationism about reference. Indeed, the Problem of the Many was meant to show that a correspondence view about reference is not tenable. This argument shows (at least in my view) that the relation between objects and language is trickier to deal with than we might have used to think and that our intuitive appeal to correspondence does not work. Consider again the name 'Kilimanjaro'. Provided that one accepts the argument of the Many, 'Kilimanjaro' cannot be unequivocally assigned to exactly one object. If this is so, then, given the inflationist conception of reference, 'Kilimanjaro' does not refer at all. However, this conclusion is rather counter intuitive and it might suggest to adopt an alternative view about reference.

A deflationist notion of reference, I submitted, is the best option we have. According to any equivalence scheme for reference (i.e. either the disquotational or the minimalist scheme), the name 'Kilimanjaro' just refers to Kilimanjaro and to nothing else. Given this, one may think that deflationism rules out the very idea of referential indeterminacy. However, I will argue that this is not the case. Let us call the claim that indeterminacy of reference and deflationism about reference are compatible the Compatibility Thesis (CT). My main argument will be the following. Since indeterminacy of reference is a phenomenon concerning how reference is fixed (i.e. how the connection between a word and a part of the world is established) and given the distinction between the "essentialist" question and the Platonic or metasemantic question, a supporter of a deflationist view about reference is able to accommodate indeterminacy of reference in her theory of names (see sec. 2.2.2).

Firstly, I will consider an argument against CT. Although arguments (or sketched

3 *Deflationism and indeterminacy of reference*

arguments) against CT can be found in various authors ([Leeds, 2000] for example), I will follow the presentation of the argument given by [Taylor, 2017]. The point that Taylor's argument is supposed to support is that a deflationist about reference cannot accept a standard explanation of indeterminacy of reference, which Taylor calls 'Semantic Unsettledness'. Secondly, I will consider how Hartry Field ([Field, 2000]) deals with the challenge of reconciling indeterminacy of reference and a deflationist view about reference. I will raise some critical points about his solution and claim that it cannot be fully satisfactory. Then, I will claim that the conclusion of Taylor's argument - that a deflationist about reference cannot explain indeterminacy of reference - is wrong, since his discussion overlooks the distinction between the "essentialist" question and the Platonic or metasemantic question. Finally, I will try to address a possible objection. The question about whether or not indeterminacy of reference and deflationism about reference are compatible is supposed to be solved by the distinction between the "essentialist" and the Platonic or metasemantic question (in favour of CT). However, is not the distinction between the "essentialist" and the Platonic or metasemantic question just a sleight of hand? I will argue that the distinction between the "essentialist" question and the Platonic or metasemantic question is well warranted, hence, a legitimate tool to solve the present problem.

A final remark is in order. One may still wonder why, after all, given a deflationist view about reference, we still want to accommodate indeterminacy of reference. I would reply as follows. Given the distinction between the "essentialist" and the Platonic or metasemantic question, we need also to distinguish a theory of the concept of reference from a theory of names, which specifies how reference is fixed - or rather, how some connection between a word and a part of the world is established. This means that a deflationist theory of reference goes together with a theory of names. As suggested in sec. 2.2.2, a deflationist should opt for a use theory of names, which takes use as the main "ingredient" to establish the connection between a word and a part of the world. As argued in that same section, there is still room to think that use underdetermines the referent of a given word.

3.1 **An argument against CT**

I will present a simple argument that is supposed to show why deflationism about reference and indeterminacy of reference are not compatible. In [Leeds, 2000], the author suggests this thought, despite his focus being on predicates and vagueness.

... it may seem that to explain what it is for a predicate P to be vague

one must inevitably say that P has more than one equally acceptable extension; but a disquotationalist can make no sense of the notion of ‘equally acceptable’ extensions when P is a word in our own language: for him the extension of P is given uniquely when we say that it refers to all the P’s. ([Leeds, 2000, p. 107])

The same thought can be applied to names and indeterminacy of reference. In short, a disquotational view about reference (as well as the minimalist view) must hold that it is determinate that a word refers exactly to one object. If this is so, how can there be more than one acceptable candidates to be the referent of a given word? In [Taylor, 2017, p. 60], the author rejects this argument, since it is based on a mistake in the transition from *de dicto* determinacy (it is determinate that a word refers exactly to one object) to *de re* determinacy (there is exactly one object of which it is determinate that it is the referent of a given word).

Rather, Taylor argues that deflationists about reference cannot accept a standard explanation of indeterminacy of reference. In [Taylor, 2017], the author presents the standard explanation as a two step account of how indeterminacy of reference might arise. Along with [Taylor, 2017], let us call such an account *Semantic Unsettledness* (SU). Here are the two parts of SU, as proposed by Taylor :

1. Facts about reference - for example, that ‘Barack’ refers to Barry - are grounded in some type of more basic facts. For example, the reference of ‘Barack’ might be *fixed* by some causal or historical relation between our uses of ‘Barack’ and Barry, or it might be settled by our collective intention to use ‘Barry’ to pick out Barack, or whatever. Call these more basic facts - whatever they are - that settle the facts about reference the base facts.
2. In certain circumstances, it is possible for the base facts to fail to determine a unique referent for a given term *t*; the base facts may succeed in ruling out the vast majority of potential referents for *t*, but they fail to narrow in on a single object. It is in precisely such circumstances that we get indeterminacy of reference: it is indeterminate whether *t* refers to this or that object.

([Taylor, 2017, p. 64], italics mine)

Let us grant that SU is a plausible explanation of how indeterminacy of reference might arise. Note that step 1 is essentially an observation about how the connection

3 Deflationism and indeterminacy of reference

between words and objects may be established. It concedes that this connection is established according to one or another model of reference examined in the first chapter of the present work. In step 2, the claim is that the ways we pick out a referent for a word sometimes underdetermines which object is picked out. Hence, we have indeterminacy of reference. Given the basic distinction between the "essentialist" question and the Platonic or metasemantic question, it can be safely claimed that indeterminacy of reference should be seen as a phenomenon affecting the latter, rather than the former of these two questions. Taylor overlooks this fact (indeed, he does not distinguish the "essentialist" question from the Platonic or metasemantic question, as the vast majority of philosophers).¹ However, for the sake of discussion, let us ignore for a moment this point and let us consider how the argument goes on.

The second premise of the argument deals with the deflationist conception of reference. I shall consider a concrete example to make clear this point. Consider the following instance of the disquotational scheme for reference (it is enough to consider the naive version 2.26)

$$\forall x(\text{'Kilimanjaro' refers to } x \text{ iff } x=\text{Kilimanjaro}) \quad (3.1)$$

It follows from 3.1 that there is a unique object that is the referent of the name 'Kilimanjaro', given that Kilimanjaro is a unique object. However, the main consequence of indeterminacy of reference is that many objects (at least two) are equally acceptable candidates to be the referent of 'Kilimanjaro'.²

The conclusion of the argument is that, if the disquotational scheme (or the minimalist scheme) is all there is to say about the concept of reference, then it is not clear how the deflationist can explain indeterminacy of reference. This would be so because the deflationist cannot (allegedly) accept SU as an account of indeterminacy of reference, since SU also claims that reference is grounded in more basic facts (than merely an equivalence scheme). However, this conclusion is wrong as I shall argue below. I will come back to this point later on, as it is worth having a look at how Hartry Field has tried to accommodate indeterminacy of reference within a deflationist (disquotational) position about reference.

A remark is in order. In the first chapter, I presented indeterminacy of reference as a motivation for moving from a traditional (inflationary) conception of reference to a deflationist view about reference. The main reason was the following. Given a

¹The overview offered by the SEP entry about reference proves this point.

²For another version of Taylor's argument see [Assadian, ming]

correspondence view about reference, a consequence of indeterminacy of reference is that the relation of reference cannot relate anything at all. This is so because it is not determinate which object should be related to a given word. For example, it is not determinate whether the name ‘Kilimanjaro’ is related to the object K_1 (Kilimanjaro with $n + 1$ molecules) or K_2 (Kilimanjaro with $n - 1$ molecules). Hence, given the inflationary conception of reference, words do not refer at all. However, this seems to be an altogether counter-intuitive conclusion, which suggests that we should rethink our notion of reference. Indeed, as V. McGee puts it

[The Problem of the Many shows that] there isn’t anything in my linguistic usage or in the linguistic usage of my speech community that picks out a unique individual as the thing I refer to by ‘Kilimanjaro’; this is so even if we allow [...] ‘usage’ to take account of causal connections between our words and our environment. Yet, quite unmistakably, there is one and only one individual I refer to when I use the name ‘Kilimanjaro’, namely Kilimanjaro itself. ([McGee, 2005, pp. 409-410])

Thus, an alternative view about reference should be adopted precisely because it avoids this problem. The deflationist view about reference, which relies on some equivalence scheme for reference giving the meaning of ‘refers’, serves precisely this purpose. Therefore, it is not surprising that deflationism about reference is incompatible with indeterminacy about reference, if we think that such indeterminacy is a phenomenon concerning the concept of reference. However, the very explanation of indeterminacy of reference offered above (SU) suggests that indeterminacy is a phenomenon concerning how reference is fixed (how the connection between words and parts of the world is established). As I shall argue below, this is the reason why deflationism and indeterminacy of reference can go together.

3.2 Field on indeterminacy of reference

In [Field, 2000], Field tries to accommodate indeterminacy of reference in the framework of a disquotational view about reference. To this end, he makes use of the resources offered by probability theory and he appeals to the epistemic notion of degrees of belief.

Field starts by observing that for some terms, we clearly perceive that reference is indeterminate. For example, take the terms ‘ i ’ and ‘ $-i$ ’ which conventionally refer to the square roots of -1 . Since ‘ i ’ and ‘ $-i$ ’ are structurally indiscernible, it is not

3 Deflationism and indeterminacy of reference

determinate to which square root of -1 we are referring to by using any of the two terms. Hence, they are referentially indeterminate. In view of this example, Field aims at accounting for indeterminacy of reference in terms of epistemological notions. That is, indeterminacy of reference is seen as a matter of probabilities and degree of beliefs in sentences where names which are referentially indeterminate occur. Importantly, this strategy is claimed to be completely independent from any theory of reference, hence, one does not get into any trouble by supporting a deflationary view about reference.

I am not interested in examining the details of Field's approach now. It suffices to point out that he starts from a probability function P and constructs a function Q from it, which need not follow the standard laws of probability. Whenever an idealized agent A does not suspect any source of indeterminacy in a sentence S (maybe because referentially indeterminate names are absent), Q and P coincide with respect to the probability value assigned to that sentence and its negation (accordingly, P and Q agree on the agent's degree of belief in S). However, if an agent recognizes some source of indeterminacy in S , Q will assign to S and $\neg S$ values whose sum is less than 1. Notably, $Q(S \vee \neg S)$ will still be 1, which enables us to keep the law of excluded middle. Thus, in case one deals with terms like 'i' and '-i', Field accommodates indeterminacy at the level of sentences. For example, suppose that we introduce in the language new terms t and \perp , with $t = -\perp$. We take these terms as names for the square roots of -1, hence, they are still referentially indeterminate. Then, Q assigns values to the sentences ' $i = t$ ' and ' $i = -\perp$ ' whose sum is less than 1, even though Q assigns 1 to the disjunction ' $i = t \vee i = -\perp$ '.

Field's strategy to reconcile indeterminacy of reference with a deflationist view about reference might seem to work well with terms like 'i' and '-i'. However, it is not clear that the same strategy can work when we deal with terms like 'Kilimanjaro'. Terms like 'i' and '-i' are immediately recognized to be referentially indeterminate. Thus, it may be plausible to describe an agent's degree of belief in sentences where 'i' and '-i' occur by using a function like Q . On the other hand, names like 'Kilimanjaro' are revealed to be referentially indeterminate just after a philosophical argument is put forward, which points out this feature of the name (and provided that one accepts such an argument). Thus, it is fair to assume that by default, a name like 'Kilimanjaro' is not recognized as referentially indeterminate by any agent. As we have just seen, when no indeterminacy is detected by an agent, Q will behave just as a classical probability function. For example, if 'a+' and 'a-' are names for Kilimanjaro plus one atom and Kilimanjaro minus one atom, then Q will assign to the sentences "'Kilimanjaro' = 'a+'" and "'Kilimanjaro' = 'a-'" values which sum up

to 1 (with respect to an agent who is not aware of the Problem of the Many, for example). This is a result that indicates no indeterminacy in the sentences at issue.

One might reply that, since Field is considering an ideal agent, it is plausible to assume that such an agent is always aware of referentially indeterminate names. For example, an ideal agent may not need an argument to see that 'Kilimanjaro' is referentially indeterminate. In that case, there would not be much difference between 'Kilimanjaro' and terms like 'i' and '-i'. However, a further objection to Field is that names may be referentially indeterminate independently from agents' awareness (even when we consider an ideal agent). Let us consider again the Problem of the Many (see sec. 1.2.2). It may be still debatable whether the Problem of the Many is a metaphysical problem about identity, an epistemological problem about our ability to discern objects or a semantic problem. If one takes the Problem of the Many as an epistemological problem, Field's solution may be a viable option, as far as it concerns ideal agents. However, since it is far from clear whether the Problem of the Many really is an epistemic issue, it is not clear whether Field provides an account of indeterminacy of reference that is compatible with a deflationist view of reference.

3.3 Why CT is tenable

The argument against CT considered above was supposed to show that a deflationist about reference cannot explain indeterminacy of reference. Field accepts the challenge and comes up with an account of indeterminacy which does not depend on any particular view about reference. As I argued above, his strategy does not seem to lead to a fully satisfactory answer. However, I will argue that a deflationist should not accept the conclusion of the argument against CT we have examined above. That conclusion is wrong, since the distinction between the "essentialist" and the Platonic question is overlooked. Indeed, indeterminacy of reference is a phenomenon affecting how reference is fixed. Since how reference is fixed and what reference is are two distinct questions, a deflationist about reference does not have any immediate problem in accepting an explanation of indeterminacy of reference as SU.

That indeterminacy of reference is a phenomenon which arises in connection with how reference is fixed might be obvious. Indeed, this is clearly endorsed by whoever thinks that SU explains indeterminacy of reference, as I pointed out above. Most importantly, arguments like Quine's indeterminacy of translation (see [Quine, 1960,

3 Deflationism and indeterminacy of reference

ch. 2] and also [Hylton and Kemp, 2020]) are exactly supposed to show that indeterminacy of reference is really indeterminacy of how reference is fixed.

Let us briefly consider indeterminacy of translation. Indeterminacy of translation is roughly the claim that some sentences can be translated in more than one way. The various versions differ in the referents that they attribute to parts of the sentence, but not in the overall import that they attribute to the sentence as a whole. To give an illustration, consider Quine's famous example. Someone might utter a sentence S in a foreign language when she comes across a rabbit. S might be translated as 'there's a rabbit' or as 'rabbithood is manifesting itself there' or as 'there are undetached rabbit parts' and so on. All that is needed is a function that maps each object into another object and each predicate into one which is true of a given object if and only if the original predicate is true of the original object. The change to the translation of singular terms and the change to the translation of predicates cancel out, leaving the overall significance of the sentence unchanged. Indeterminacy of reference follows from it, given the assumption that admissible translations have to preserve reference. As the example shows, indeterminacy arises because the linguistic behaviour of speakers does not indicate a unique correct referent for words, be they singular terms or predicates. This just means that indeterminacy is a phenomenon affecting how reference for foreign words must be fixed. To be sure, Quine claims that the same holds for English (in general, one's own language. In Quine's words «radical translation begins at home», Quine, [Quine, 1969, p. 46]). I will not look at the consequences that Quine draws from this fact (e.g. ontological relativity). Suffice it to say that this means that indeterminacy is a phenomenon affecting how reference is fixed in general.³

In view of what has just been said and with the distinction between the "essentialist" and the Platonic or metasemantic question in mind, let us go back to the issue of defending CT. Recall that SU (Semantic Unsettling) aims at explaining indeterminacy of reference. The objection is that a deflationist cannot accept SU as a good explanation because of her concept of reference. However, note that claim (1) in SU is the claim that reference is fixed by non-semantic facts. For example, the fact that 'Barack' refers to Barry might be grounded, to use Taylor's expression, in some causal relation between our use of the name 'Barack' and Barry. The fact that 'Barack' refers to Barry in virtue of such causal link is not really a fact about the *concept* of reference or the meaning of 'refers'. Rather, it is a fact about how the name 'Barack' came to designate Barry. As long as the non-semantic facts

³Note that similar observations also follow from Putnam's model-theoretic arguments.

mentioned by Taylor (causal connections, dispositions of the speaker, and so on) are understood in terms of a use theory of name (hence, a use theory of reference fixing, i.e. a use theory of how the connection between a word and part of the world is established, see sec. 2.2.2), deflationism about reference is compatible with such an account of why ‘Barack’ refers to Barry. Indeed, this is part of a theory of names rather than a theory of the concept of reference. Therefore, a deflationist about reference does not have any obvious issue with SU just because of her concept of reference.

A final remark is in order. One might wish to describe in formal terms the phenomenon of indeterminacy of reference and how it interacts with a deflationist view about reference. For example, in [McGee and McLaughlin, 2000], the authors propose to deal with indeterminacy of reference in the same way as supervaluationism deals with vagueness (after all, vagueness is just a particular instance of indeterminacy of reference, when we consider just predicates and their extensions). Roughly, the idea is that a referentially indeterminate word does not have the same referent in each acceptable model, granted that we have some criteria to say when a model is acceptable. In other words, the indeterminacy of how reference is fixed is mirrored in the fact that a name might have different referents in different models. However, in each model that word has a unique referent. This accommodates a deflationist position about reference, since any equivalence scheme for reference delivers, if any at all, a unique referent for a given word.

For the sake of an illustration, consider the name ‘Kilimanjaro’ and suppose we have two (acceptable) models \mathcal{M}_1 and \mathcal{M}_2 which assign two different objects to ‘Kilimanjaro’. For example, ‘Kilimanjaro’ may refer to K_1 in model \mathcal{M}_1 and to K_2 in model \mathcal{M}_2 . Hence, from an "external" perspective ‘Kilimanjaro’ is referentially indeterminate, since there is no object of which it is determinate that ‘Kilimanjaro’ refers to it. Indeed, either K_1 or K_2 are equally good candidates to be the referent of ‘Kilimanjaro’. However, from an "internal" perspective (i.e. from the perspective of each model), ‘Kilimanjaro’ has a definite referent. In \mathcal{M}_1 , ‘Kilimanjaro’ refers to K_1 and to nothing else. In \mathcal{M}_2 , ‘Kilimanjaro’ refers to K_2 and to nothing else. Hence, it is determinate that ‘Kilimanjaro’ refers to one object and nothing else.⁴

In principle, there is nothing wrong with the suggestion of exploiting models in order to describe the interaction between indeterminacy of reference and a deflation-

⁴If ‘determinate’ (Δ) is regarded as a modal operator (as McGee and McLaughlin wish to say), then the sentence $\exists x\Delta(\text{‘Kilimanjaro’ refers to } x)$ is false, while the sentence $\Delta(\exists x(\text{‘Kilimanjaro’ refers to } x))$ comes out true. This is so because, as is standard in supervaluationistic logics (see for example [Varzi, 2007]), $\Delta\phi$ is true if and only if ϕ is true in all models.

ist view about reference. Indeed, models are useful to make it clear. However, one should be careful and bear in mind that models are just a convenient mathematical tool, rather than a description of how reality is. One danger of taking reality as model theory takes models is in fact a correspondence view about reference, which is challenged by indeterminacy of reference. Another danger is the thought that we can in fact assume a perspective on reality similar to the "external" perspective on models mentioned above. This thought, which is attacked by Putnam's model-theoretic arguments (see [Putnam, 1980] and [Button, 2013]), also leads to indeterminacy of reference as we have seen.

3.4 Replies to a possible objection

One may think that the present solution to the issue: Are indeterminacy of reference and deflationism about reference compatible? is something like cheating. After all, one may say, the distinction between the "essentialist" and the Platonic or metasemantic question, which is supposed to solve the problem in favour of CT, is just a sleight of hand.

There are two possible replies to this objection. The less compelling one is simply to note that traditional inflationary theories of reference obtain a definition of reference from models of how reference is fixed. For example, the definition

$$x \text{ refers to } y \text{ iff there is a chain of communication which links } x \text{ to } y \quad (3.2)$$

results from a causal model of how reference is fixed. In other words, the real work is still done by a theory of how reference is fixed, while a theory of reference is obtained on the basis of the former. As a consequence, the causal theory of reference can accept SU as an explanation of indeterminacy of reference because of how it takes reference to be fixed.⁵ However, a deflationist about reference needs a story of how reference is fixed as well. As I argued in sec. 2.2.2, in some cases something in the vicinity of the Kripkean model is also available to the deflationist.

The second and more important reply to the present objection is the following. The distinction between the "essentialist" and the Platonic or metasemantic question about reference closely resembles a distinction between similar questions about

⁵Not to mention that one might deem reference to be a primitive inflationary notion, in which case one's acceptance of SU clearly depends on one's view on how reference is fixed and nothing else.

3.4 Replies to a possible objection

truth. On the one hand, we can ask what truth is and under what circumstances a sentence (or a proposition) is true. On the other hand, we can ask why a sentence (or a proposition) is true. A deflationary theory of truth takes that truth (the truth predicate) is a logical device to increase the expressive power of a language and that an equivalence scheme determines when a sentence (or a proposition) is true. When you ask why a sentence (or a proposition) is true, a deflationist may submit that you need to look at other facts explaining why the disquoted sentence holds. For example, one may wonder why 'snow is white' is true. A deflationist may suggest that 'snow is white' is true because snow is white and that we need to look at the chemical composition of snow to discover the reasons of its whiteness (see [Horwich, 1998b, p. 105]). When it comes to reference, we might ask what reference is and under what circumstances a name x refers to an object y . In analogy with truth, a deflationist may reply that reference is a logical device to make some generalizations over terms position and that an equivalence scheme determines when a name refers to an object. Then, if we ask why that name refers to that object, we need to look at other kinds of facts which do not say anything about the concept of reference. Rather, such facts concern how we use language. Thus, the analogy between truth and reference is meant to show that the distinction between the "essentialist" and the Platonic or metasemantic question is part of the deflationist attitude to distinguish questions about a concept and questions about things which are related yet different from that concept. Rather than an *ad hoc* expedient to solve a problem (e.g. whether or not indeterminacy and deflationism about reference are compatible), the distinction between the "essentialist" and the Platonic or metasemantic question is natural from the deflationist point of view. Importantly, the present distinction is also acceptable (and, I submit, should be accepted) for a supporter of the inflationary view about reference, as the discussion of the previous paragraph makes clear. Therefore, the objection that the distinction between the "essentialist" question and the Platonic or metasemantic question is *ad hoc* is unwarranted.

Conclusion

I have introduced the distinction between the "essentialist" question concerning reference - what reference is - and the Platonic or metasemantic question - how it comes that words designate the objects they do designate. The distinction between these two questions leads to a further distinction between a theory of the concept of reference and a theory of names, which specifies how reference is fixed, or rather how the connection between words and some parts of the world is established.

With this distinction in mind, I have tried to defend a deflationist view about reference as opposed to the traditional inflationist view. In the first chapter, I showed that an inflationist view about reference is challenged by the phenomenon of referential indeterminacy (which affects the Platonic or metasemantic question, hence, theories of names). Indeed, an inflationist view about reference holds, at the very least, that reference is a correspondence relation with some metaphysical import. Typically (but not necessarily), the inflationist takes a theory of names or of how reference is fixed and uses it to define this correspondence relation. However, a consequence of the Problem of the Many is that we are not able to decide which object among many equally admissible candidates words bear a relation to. Therefore, words does not refer at all given the inflationist conception of reference. In other words, given the inflationist conception of reference, indeterminacy does not affect just how reference is fixed, but it becomes also a phenomenon affecting the concept of reference itself. I endorsed McGee and McLaughlin's suggestion that this is a reason to move to a deflationist view about reference.

In the second chapter, I discussed deflationism about reference. I compared deflationism about reference with deflationism about truth. In particular, I claimed that a deflationist view about reference holds (or should hold) that (i) the concept of reference has a logico-expressive role in a language and (ii) the concept of reference has *only* this logico-expressive role. Hence, reference is no a substantial notion (given a reading of 'substantial' as 'having an explanatory role'). In order to accomplish its logico-expressive role, the concept of reference is governed by some equivalence scheme, which is supposed to give the meaning of 'refers'. It follows from any equivalence scheme for reference that a word refers exactly to one object.

3 Deflationism and indeterminacy of reference

I have noticed that a deflationist theory of reference is a theory of the concept of reference. It is not a theory of names, hence, it does not provide a story of how the connection between a word and a part of the world is established. This is a task for a theory of names which fits the deflationist picture of reference. As I argued, any such a theory should be a use theory of names.

In the last chapter, I showed that deflationism about reference is still compatible with indeterminacy of reference. A deflationist view of reference goes together with a (deflationary-friendly) theory of names that addresses the Platonic or metasemantic question. This theory must be a use theory of names. Since there is room to think that use underdetermines which part of the world a name is connected to, a deflationist view of reference is compatible with indeterminacy of reference.

Finally, it is important to recognize some limits of the deflationary project. Its success hinges on at least two open questions. The first is a philosophical question about how to work out properly a use theory of meaning. This issue is relevant as long as a use theory of names is part of a use theory of meaning in general. In [Horwich, 1998a], Horwich undertakes this task and suggests that (i) *meanings are concepts* (the meaning of a word is the concept expressed by that word), (ii) *the overall use of each word stems from its possession of a basic acceptance property* (see [Horwich, 1998a, p. 44 and 45]) and (iii) *two words express the same concept in virtue of having the same acceptance property*. For example, the acceptance property underlying our use of 'red' is the disposition to apply 'red' to an observed surface when and only when it is clearly red (see [Horwich, 1998a, p. 45]). When it comes to names, there is not a uniform way to specify the acceptance property underlying their use, rather it needs to be done on a case-by-case basis (for example, the acceptance property for a proper name may be different from the one of a number term). However, the case of names is an instance of a not completely worked out aspect of Horwich's theory, as he himself admits (see [Horwich, 1998a, p. 129]). Moreover, Horwich's use theory of meaning is still subject to some objections. For example, there is a worry that it implies the existence of differences in meaning which do not exist (two people's use of some term might be explained by distinct basic acceptance properties without their meaning different things by that term (see [Speaks, 2019] and [Schiffer, 2000])).

The second open question constraining the success of the deflationist project is how to provide a satisfactory formal theory of reference. Horwich's minimal theory (i.e. the set of all instances of the minimal scheme for reference) suffers from the problem raised by T. Button in [Button, 2014], which I mentioned in subsec. "Minimalist approach to reference". In short, the minimal theory of reference is not

3.4 Replies to a possible objection

comprehensive, since it is not possible to provide an instance of the minimal scheme for those propositional constituents which are not expressible in a given language. On the other, a disquotational theory may not be satisfactory precisely because it is confined to a particular language. As long as one of the main tenets of deflationism about reference is about the logical function accomplished by the concept of reference, the present open question is a gap in the deflationist picture.

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