Use Against Scepticism

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By

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To my parents,
for all their love and support.

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INTRODUCTION

1. Background

I make two main assumptions in the background of this essay. The first regards realism and the second naturalism. I accept realism in the formulation proposed by Michael Devitt:[1]

> Tokens of most current common-sense and scientific physical types exist and most have the properties attributed to them by science and folk theories.

Realism is a metaphysical doctrine about reality, about what there is and what its nature is. As Devitt maintains,[2] realism can be justified by an inference to the best explanation. We infer the truth of realism from the need to posit it in order to explain the evidential character of experience. Why is our experience as if there is such and such a world out there? The best explanation is to say that the evidential character of our experience is as if there is such and such a world, because there actually is such and such a world out there; e.g. it looks as if there is a tree covered with green leaves outside my window, because there is a tree covered with green leaves outside my window.

Admittedly, there is no compelling reason why the radical sceptic should accept such inference to the existence of the external world. The inference is not a valid deduction from indubitably true premises and leaves open the possibility of inferences to other explanations of the evidential character of our experience, like the evil influence of the Cartesian demon or the artificial stimulations of the brain in the vat. However, the inference looks convincing from within the approach of naturalised epistemology, according to which there is no privileged and *a priori* perspective from which our scientific, epistemic and methodological principles can be justified, apart from the standard scientific – operational and theoretical – canons like predictive adequacy and simplicity. So, radical scepticism remains ultimately unanswered since it imposes

[1] Cf. Devitt (1984 p. 23, 2006 p. 102).
[2] Cf. Devitt (1984 ch. 5).

standards of knowledge that are too high relative to scientific canons, but for the very same reason turns out to be uninteresting for naturalists. According to naturalists, philosophy does not have any foundational role with respect to sciences, rather philosophical investigations become continuous with science.[3] For example, the task of epistemology is not to look for certainty, the ultimate foundation of our knowledge, but to give an explanation of the processes that generate knowledge from within science, keeping faith to the empiricist idea that our cognitive capacities are grounded in the architecture of our cognitive system and in causal relations to the world. This project includes both a descriptive part and a normative part. The first explains the processes that lead us to knowledge and the second explains that in virtue of which something qualifies as a piece of knowledge. In general, philosophical investigations concern the conceptual parts of folk and scientific theories which, as a whole, have an empirical content because, according to W.V.O. Quine's picture of the web of belief, as a whole face the tribunal of experience.

The foregoing lead to my second assumption in this essay: naturalism. We need to distinguish two strands of naturalism, each motivated by its empiricist root: the ontological and the epistemological. From the ontological standpoint, naturalism implies the rejection of whatever does not find its place in nature. From the epistemological standpoint, naturalism implies the rejection of the view that conceptual analysis is a source of *a priori* and unrevisable knowledge. From the ontological standpoint, then, everything that exists is an empirically accessible part of nature. The crucial point is to understand what counts as an empirically accessible part of nature. Some philosophers hold that we have cognitive access only to things to which we stand in causal relation, and we stand in causal relation only to things that belong to the physical world. The physical world is empirically accessible through impingements on sense organs and the realm of nature coincides with the causal sources of such impingements. Thus, everything exists only in the causal order of nature: if anything exists, either it belongs to the physical world or can be reduced to it. Conversely, if something is not physical or is not reducible to the physical order, it must be expunged from our ontology. This is the austere physicalistic version of naturalism. Other naturalist philosophers try to define what an empirically accessible part of nature is by privileging the

[3] According to naturalism – at least in its more liberal version – the task of philosophy is to participate in the solution of some problems in the most conceptual parts of the particular sciences and to reflect upon and integrate the results in the particular sciences in order to form a coherent overall picture of the world. Cf. Devitt and Sterelny (1999 p. 275).

epistemological strand in naturalism. In general, from this perspective something is an empirically accessible part of nature if it is required by the ontology and the methodology of natural sciences. Sorts of entities that lack causal efficacy might nonetheless be counted as empirically accessible if the theories that involve them form indispensable parts of the body of natural sciences. The typical example of this approach is Quine's attitude towards mathematical entities. We are committed to the existence of all and only those entities that are indispensable to our best scientific theories. As mathematical entities are indispensable to our best scientific theories, we are committed to their existence.[4] The epistemological strand allows for a more liberal version of naturalism[5] than the austere physicalistic version. In this essay I assume the more liberal version of naturalism.

Given the above version of realism and liberal naturalism in the background, what place is left for semantic notions? This essay tries to answer that question. There are three main positions in response to it:[6]

> Eliminativism: our theory of the world is strictly and austerely physical, having no need of any semantic notion.[7]
>
> Physicalism: our theory of the world has need of semantic notions which are reducible to non-semantic terms – ultimately to physical terms.
>
> Semanticalism: our theory of the world has need of semantic notions which are basic and irreducible to non-semantic terms.

In this essay I argue in favour of a version of semanticalism. The version of semanticalism I hold does not make semantic notions mysterious and does not make them seem as if they are added from outside the realm of nature, as is the case with the Cartesian conception of mental properties. I defend the view that semantic properties are emergent properties reference to which serves to play a normative role in the account of the nature of linguistic expressions.

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[4] For a discussion of Quine's argument see, for example, Colyvan (2003).
[5] For an overview of liberal naturalistic positions see De Caro and Macarthur (2004).
[6] Here I draw on Devitt (1984 pp. 182-3).
[7] See, for example, Quine (1960, 1969) and Leeds (1978). See also Churchland (1981).

Emergentism[8] is the view that certain properties (i) cannot be reduced by reductive definitions to physical properties, (ii) cannot be explained by physical properties, and (iii) cannot be simply added from outside the realm of nature. The idea of emergentism is that emergent properties are higher-level properties that are genuinely 'novel' in the sense that they are not purely consequences of the lower-level properties or reducible to them. According to emergentism, higher-level properties emerge when and only when an appropriate set of lower-level conditions are present and this means that the occurrence of the higher-level properties is metaphysically dependent on the instantiation of appropriate lower-level properties. The concept of emergence combines three components: (i) property co-variance, (ii) dependence and (iii) non-reducibility.[9] Emergent properties are metaphysically dependent on the lower-level properties in such a way that there is no variation in the emergent properties without variation in the lower-level properties. Therefore emergentism implies supervenience: every physical duplicate of the actual world is a duplicate in every respect. Thus, what distinguishes emergentism from physicalism is the denial of the idea that the physical has an ontological priority or an explanatory priority.[10] The ontological priority entails that all entities belong to a subclass of the class of physical entities. The explanatory priority entails that all truths can be explained in principle in broadly physicalistic terms. While accepting the supervenience thesis, emergentism is not committed to the ontological priority nor to the explanatory priority of the physical over the rest. Emergentism assumes supervenience to be a brute metaphysical fact, which we are not able to explain. Although emergentism assumes supervenience as a brute metaphysical fact, emergentism prevents semantic properties from being metaphysically mysterious, or at least from being as mysterious as the idea that there might be the same distribution of physical properties and two different distributions of semantic properties, which would imply that the realm of physical properties and the realm of semantic properties are metaphysically independent of each other. In other words, semantic properties would be added from outside the realm of nature. That would be a sort of Cartesian dualism in respect of semantic properties and I reject such a dualism.

I endorse the view that the need for semantic properties in our theorising about the world stems from the fact that our best overall theory of the world treats linguistic expressions as having semantic properties.

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[8] See Broad (1929).

[9] Cf. Kim (1995 pp. 576-7).

[10] For the distinction between ontological and explanatory reduction see Crane (2001).

The best explanation of why and how linguistic expressions can be used as a guide to reality involves semantic properties. We use utterances and inscriptions as devices to inform and to learn about the states of the world. What is it about the nature of linguistic expressions that makes them suitable instruments for informing and for learning about the states of the world? Our best explanation consists in giving linguistic expressions semantic properties that correlate them to things and states of the world. Indeed, the instances of the disquotational schema are sufficient to pair sentences to worldly situations. It is in virtue of a sentence having a certain truth-condition, the state of the world that must obtain in order for the sentence to be true, that the sentence can serve as a guide to reality. Semantic properties are that in virtue of which linguistic expressions can serve the role of guides to reality. I follow Devitt's view[11] in locating the need for semantic properties not in the explanation of linguistic behaviour but in the explanation of the nature of linguistic expressions. Therefore, I regard semantics not as theory of speakers' linguistic competence. We need an account of linguistic competence in order to explain speakers' linguistic behaviour, but we need semantics in order to explain the nature of the objects produced by the behavioural output of linguistic competence.

Thus, I argue that we should keep semantics distinct from the theory of meaning. The theory of meaning is a theory of speakers' linguistic competence. Linguistic competence is a practical ability and a theory of meaning must model that practical ability. The model is a set of sentences which represent what a competent speaker knows. This does not mean that a competent speaker has propositional knowledge of those sentences. Knowing a language is a knowing *how* not a knowing *that*. It is ability knowledge, not propositional knowledge. In other words, a competent speaker need not have propositional knowledge of the theory of meaning, although his linguistic behaviour is such that it is as if he did have such knowledge. Consider a speaker who reads the sentence "tomorrow will be sunny and warm" on the weather forecast page of the newspaper. My contention is that we do not need to model his understanding as if he knew the semantic properties of the expressions occurring in that sentence. Rather, we need to invoke the semantic properties of that sentence in order to explain the social practice of uttering and writing it in order to inform people about weather conditions. In general, semantic properties are normative properties that occur in our best explanation of the fact that linguistic expressions are suitable instruments for certain social practices

[11] Cf. Devitt (1984 pp. 101-5).

and purposes. Semantics is called for in explaining the truth-conditions of sentences. The intuitive idea is that any sentence is true or false in virtue of (i) its syntactic structure, (ii) the referential relations between its parts and reality and (iii) the states of the world. Strict physicalistic naturalists demand that the notion of reference be reduced or explained in physicalistic terms. By contrast, I argue that liberal naturalists are entitled to endorse the same attitude towards semantic properties as Quine's attitude towards mathematical entities. We ought to accept semantic properties since our best theory of the world makes reference to them. The metaphysical principle of the supervenience of semantic properties over naturalistic properties, though unexplained, is justified to the extent that it too belongs to our best overall theory of the world, which as a whole faces the tribunal of experience.

However, this liberal naturalistic approach to semantics faces a threat. At the least, emergentism implies that the truth-values of sentences expressing semantic facts cannot vary without variance of the truth-values of sentences expressing facts of the supervenience base. The problem is that the arguments for underdetermination of semantics[12] show just that there might be the same distribution of naturalistic properties but two different distributions of semantic properties. Those arguments show that a theory of truth that employs semantic notions as primitive notions is underdetermined by the empirical evidence. If a theory of truth for a language L is confirmed, then there are other alternative theories that are confirmed equally well by the same evidence. The threat to emergentism is the move from the epistemological level to the metaphysical level since the empirical evidence is constituted by all naturalistic facts about environment and speakers' linguistic and non-linguistic behaviour. Therefore, the arguments for underdetermination become arguments for indeterminacy of semantic notions because one cannot rule out the possibility that two different distributions of semantic properties correspond to one and the same distribution of naturalistic properties. That result undermines the metaphysical thesis of emergentism. And worse, it undermines emergentism from within liberal naturalism itself. Indeed, according to liberal naturalism the entitlement to semantic notions is grounded on the fact that they occur in our best overall theory of the world. Yet, underdetermination shows that if we have one empirically adequate semantic theory, then we have many. This result conflicts with the metaphysical principle of supervenience, which is part of the same liberal naturalistic image of the world.

[12] See Quine (1960, 1969) and Kripke (1982). See also Putnam (1977, 1980, 1981).

2. Summary

This essay takes its start from the response to the objection to the principle that semantic properties emerge upon naturalistic properties. In chapter 1 I offer an answer to the indeterminacy arguments, and argue that these arguments are misplaced. They rest on the assumption that semantic properties are needed to account for linguistic competence. Accordingly, it is the theory of meaning that makes reference to semantic properties. This means that the indeterminacy arguments assume the truth-theoretic conception of meaning according to which linguistic competence is modelled by theories of truth. Of course, it is compulsory to test the theory of meaning against the empirical evidence – evidence about environment and speakers' behaviour – since the theory of meaning as theory of linguistic competence is called for in the explanation of linguistic behaviour. Therefore, if the theory of meaning takes the form of the theory of truth, it is compulsory to test the theory of truth directly against the empirical evidence. But theories of truth turn out to be underdetermined. So, the charge of indeterminacy follows and undermines the thesis of emergentism.

I hold that matters change radically if one endorses the use conception of meaning, according to which meaning properties are constituted by acceptance properties.[13] On the use conception, the theory of meaning attributes acceptance properties and not semantic properties to linguistic expressions. It is, then, attributions of acceptance properties that are tested against the empirical evidence and not attributions of semantic properties. I argue that the theory of meaning inspired by the use conception is not underdetermined by the empirical evidence. It is not the case that two theorists can come up with two different theories of meaning for the same language that are equally well supported by the empirical evidence. If meaning is not underdetermined, then synonymy is not either. And if synonymy is not underdetermined, then semantic properties can be specified by deflationary schemata in which the expressions of the object-language are synonymous with the expressions of the metalanguage. Of course, this view will be criticised from the standpoint of strict and austere physicalistic naturalism, but it could be accepted from the view that combines realism and liberal naturalism. Semantic properties are posits of our best theory of the world to explain the nature of linguistic expressions. As such they play a normative role and our understanding of them is given in terms of deflationary schemata.

[13] See, for example, Horwich (1998).

The conclusion of chapter 1 is that the indeterminacy arguments are misplaced because, assuming that the need for semantic properties is located in the theory of meaning, they endorse the truth-theoretic conception of meaning. By contrast, the theories of meaning inspired by the use conception do not fall prey to those arguments and can be combined with the idea that the need for semantic properties is located in the theory of linguistic expressions and not in the theory of linguistic competence.

Semantic properties serve to explain the linguistic nature of the objects produced by certain bodily movements like speaking and writing. The objects produced by those bodily movements, such as emissions of sounds and incisions of signs, have a linguistic nature in so far as they have semantic properties that allow them to represent other things.[14] In this essay I argue that semantic properties are essential properties of linguistic expressions. This view presupposes that words are individuated by appealing to more than their phonological and morphological structure. I hold that words can be individuated as pairs of sounds/signs types and meanings. Thus individuated, words have their semantic properties essentially. Any word has the same semantic properties in all possible worlds in which it exists. In chapter 2 I argue that the use conception of meaning serves to introduce meanings into our ontology via abstraction. The idea is to employ synonymy as the equivalence relation for building a principle for abstracting meanings over linguistic expressions. Synonymy is then defined in terms of sameness of acceptance properties: two expressions are synonymous if and only if they have the same acceptance properties. After refining the definition of synonymy for compound expressions, I consider three main objections that have been levelled at the idea of abstracting meanings over linguistic expressions:[15] (i) the plenitude objection, (ii) the modal objection and (iii) the circularity objection. I reply to these objections. My conclusion is conditional: if the use conception of meaning is tenable, then we can introduce meanings into our ontology for simple and compound expressions via abstraction.

Abstraction makes meanings entities whose existence depends on the existence of linguistic practice. This means that meanings inhabit only those worlds in which there is a certain linguistic practice. In chapter 3 I argue that this view about the nature of meanings does not imply any form of semantic antirealism according to which the notion of truth is epistemically constrained. I maintain that those philosophers who claim

[14] This is not a sufficient condition for possessing a linguistic nature. At least, linguistic objects need to have compositional syntactic structures as well.
[15] These objections have been recently reinforced in Wrigley (2006).

otherwise combine the truth-theoretic conception of meaning with the view that meanings need to be spelled out in terms of some epistemic notion. They do not keep the theory of meaning as theory of linguistic competence distinct from semantics as theory of the nature of linguistic expressions. My contention, then, is that the philosophers who accept Wittgenstein's slogan that meaning is use divide into two groups: those who agree that the notion of truth and the notion of meaning are intimately connected to the extent that the theory of meaning must employ some truth-theoretic notion and those who reject such a view. I address the issue by discussing two of Michael Dummett's arguments against the (classical) truth-theoretic conception of meaning: the manifestation argument and the argument for the unintelligibility of classical logic. I examine the dialectic of these arguments and show that the assumption that truth and meaning are intimately connected plays an indispensable role in them. I argue that the use conception of meaning (i) entitles us to reject the intimate connection between truth and meaning, (ii) meets the requirements that, according to Dummett, the view that meaning is use makes compulsory on the theory of meaning and (iii) is compatible with semantic realism.

Semantic realism is captured by the view that the truth of a sentence depends on (a) its syntactic structure, (b) the referential relations between its parts and reality and (c) the states of the world. As noted above, strict physicalists demand that the relation of reference be reduced.[16] Liberal naturalists can hold that our entitlement to semantic notions derives from the fact that semantics occurs in our best overall theory of the world. To this effect it is necessary for liberal naturalists to present an adequate theory of semantic properties. The Tarskian definition of truth in L fits well with the requirements (a) to (c). Indeed, the Tarskian definition entitles us to derive the instances of the disquotational schema which pair sentences with worldly situations and the derivation is grounded in the syntactic structure of the sentences and in the referential relations between their subsentential parts and the world. In chapter 4 I defend the Tarskian definition of truth in L against the objection that it fails to define the property of truth in L. I offer a reply to (i) the modal objection,[17] (ii) the explanatory force objection,[18] (iii) the truth-conditions objection,[19] and (iv) the substantivity objection.[20] My claim is that liberal naturalists can avail themselves of the Tarskian definition of truth, regarding it as an adequate

[16] See, for example, Field (1972).
[17] See Soames (1984), Etchemendy (1988), Putnam (1994).
[18] See Field (1972).
[19] See Bar-On et al. (2000).
[20] See Blackburn (1984).

theory of semantic properties restricted to specific languages.

I endorse Devitt's view that semantics has no special philosophical authority. It is just one theory about the world, more precisely about the manner in which one part of the world, i.e. languages, represents other parts of the world. Our overall theory of the world must include metaphysical pictures about what kinds of entities exist and what their nature is. Devitt rejects the proposal to set metaphysical questions in the form of semantic questions.[21] Rather, semantics is subsidiary to metaphysics. This attitude raises a problem concerning the relationship between semantics and certain regions of discourse, especially if semantics takes – as I claim it should – the form of the Tarskian definition. The Tarskian definition shares with deflationary theories of truth (i) the manner in which semantic properties are specified, (ii) the rejection of reductionism. In so far as the Tarskian definition entitles us to derive biconditionals that pair sentences and states of the world, the Tarskian definition captures the representational role of language. Yet, according to some philosophers,[22] there is a tension between the idea that a theory with a deflationary inspiration captures the representational role of language and the idea that such a theory aligns with metaphysical pictures that deny the existence of entities of any kind. The difficulty arises from the view that semantics is subsidiary to metaphysics. A metaphysical picture might maintain that entities of a certain kind do not exist. For example, a metaphysical picture might hold that aesthetic properties do not exist. If semantics is subsidiary to metaphysics, semantics ought to allow us to infer that aesthetic discourse has no representational role, because there is nothing out there to be represented. In other words, semantics ought to allow us to say that sentences in aesthetic discourse are not factual. The problem is how to spell out the notion of factuality. It has been argued that nothing close to deflationism has the resources to justify the distinction between factual and non-factual sentences. In chapter 5 I argue for the conditional claim that if the use conception of meaning can be defended successfully, then a modified Tarskian definition of truth can be shown to be consistent with the standard formulation of non-factualism, according to which non-factual sentences are not truth-apt and lack any representational role.

[21] Lowe (1998) is another example of those philosophers who reject the proposal to set metaphysical questions in terms of semantic questions.
[22] Many of them are deflationists, for example Paul Horwich.

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CHAPTER ONE

MEANING SCEPTICISM

The arguments for the underdetermination of the theory of meaning[1] raise an objection to any metaphysical view according to which semantic properties supervene on naturalistic properties without being reducible to them. Those arguments tell us that there might be the same distribution of naturalistic properties and two different distributions of semantic properties. They force upon theorists the choice between reductionism, eliminativism and dogmatic dualism. Each of these three options is problematic. On the one hand, there is no viable reduction of semantic properties in place. On the other hand, eliminativism and dogmatic dualism demand a high theoretical price to be paid. The first conflicts with our best account of the nature of linguistic expressions, which attributes semantic properties to them, and the second is suspicious since it divides semantic properties from naturalistic properties, in contrast with any naturalistic picture of the world.

In this chapter I argue that the underdetermination arguments are effective only if one accepts the truth-theoretic conception of meaning, which explicates meaning in terms of truth-theoretic notions, such as reference and truth, to the effect that linguistic competence is modelled by a theory of truth. In other words, it is assumed that the linguistic competence relative to a given language L is represented by a theory from which the truth-condition of any sentence of L is derivable. I argue that the use conception of meaning, which explicates meaning in terms of basic acceptance properties of linguistic expressions, is not underdetermined. I show that on the use conception it is not the case that two theorists can build up two incompatible and yet equally empirically adequate theories of meaning.

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[1] See Quine (1960, 1969) and Kripke (1982). One might – and ought to – count also Putnam's (1977, 1980, 1981) model theoretic argument among the arguments for the underdetermination of theories of meaning. As Putnam himself acknowledges, his model theoretic argument is a stronger version of Quine's argument on proxy-functions.

My line of argument rests on the distinction between the theory of meaning and semantics. The theory of meaning is the theory that models linguistic competence and is called for in the explanation of linguistic behaviour. Semantics is a theory about the nature of linguistic expressions, which are the objects produced by the behavioural output of the linguistic competence. More specifically, semantics is about the properties that make linguistic expressions suitable instruments for informing people and for learning about states of the world. On the use conception, semantics requires the theory of meaning in the sense that before giving the semantics for a language one needs to know the theory of meaning for that language. Once the meanings of linguistic expressions are fixed, their semantic properties can be determined by means of deflationary schemata. Semantics, then, does not face the empirical evidence directly, since deflationary schemata are treated as analytic.[2] It is the theory of meaning that is tested against the empirical evidence on the basis of its capacity to explain linguistic behaviour. This is the key to my response to the underdetermination arguments. Their attempt to show that semantics is underdetermined is based on a conflation of semantics and the theory of meaning, whereas on my view it makes no sense to say that semantics is underdetermined, because semantics need not be tested directly against the empirical evidence. In brief, my claim is that on the use conception of meaning the underdetermination arguments are misplaced.

In section 1 I will recapitulate W.V.O. Quine's and Saul Kripke's arguments for underdetermination and explain the move from underdetermination to indeterminacy. In section 2 I will expound the truth-theoretic conception and the use conception of meaning and the difference they make about the manner in which truth-theoretic theories and use theories of meaning are tested against the empirical evidence. In section 3 I will explain the conceptual tie between the use conception of meaning and deflationism and offer a reply to one important objection to my line of argument. In section 4 I will prove that the theories inspired by the use conception of meaning do not fall prey to the underdetermination arguments. In so far as theories of meaning are theories that assign basic acceptance properties to words, it is not the case that the same empirical evidence can confirm two incompatible theories of meaning. In section 5 I will respond to Hilary Putnam's *Twin Earth* thought experiment. I owe a response to it because on the use conception if two words have the same acceptance properties then they have the same meaning, and if two words

[2] Here I use "analytic" in the weak sense that linguistic competence is sufficient to justify the acceptance of an analytic sentence, not in the strong sense that an analytic sentence is immune from revision.

have the same meaning then they are guaranteed to have the same semantic property in virtue of the deflationary schemata. Putnam's thought experiment purports to supply a counterexample to that conclusion. In section 6 I will reply to other objections concerning realism and convergence in science that Putnam presents in order to strengthen the case against the idea that in 1750 Oscar and his *Doppelgänger* on Twin Earth would have used the word "water" with the same meaning as they would have used that word in accordance with the same acceptance properties.

1. Meaning Scepticism

We are tempted to take the following sentences to be fact stating:

(1) "Cat" means CAT.
(2) "Cat" is truly translated into Italian by "gatto".
(3) "Cat" is true of all and only cats.

Quine and Kripke[3] maintained that this temptation must be resisted. Quine argues that if there are meanings, then there must be a fact of the matter as to whether any two expressions are synonymous or not. And if it is a fact that two expressions are synonymous, then there must be a fact of the matter as to whether a translation from one into the other is correct. But, according to Quine, it is an illusion to think that translation is an objective relation. Quine's starting point is the methodological principle that we have access to facts about meanings and synonymy through the observation of facts concerning behaviour and the environment in which behaviour takes place. We can appraise the truth-values of sentences about

[3] See Quine (1960, 1969) and Kripke (1982). In this chapter, I discuss Kripke's argument on the finiteness of speakers' dispositions. This is only one of Kripke's arguments against dispositionalism. Among them we can list the argument on the normative import of meaning (the concept of meaning has a normative import that the concept of disposition does not have), the argument on the guidance requirement (we feel guided and justified in using expressions as if we were following a rule and the reduction of meaning properties to dispositions does not explain such feeling) and the argument on error (there is no principled distinction between meaning constitutive acceptance properties and patterns of use that are not meaning constitutive since there might be dispositions to make mistakes). I claim that Kripke's argument on the finiteness of speakers' dispositions reveals a line of reasoning for underdetermination (and then for indeterminacy) similar to Quine's arguments on radical translation and proxy-functions.

ascriptions of meanings and synonymy only by the appraisal of sentences about speakers' behaviour and environment. Quine argues that facts about speakers' behaviour and other observational evidence are not sufficient to pick out the translation manuals that are true. If the empirical evidence confirms one translation manual, then there are other incompatible translation manuals that fit the same empirical evidence equally well. The conclusion is that we cannot isolate the translation manual that truly describes the facts about synonymy and ascriptions of meanings. Synonymy and ascriptions of meanings are underdetermined by the empirical evidence.

Kripke, too, denies the possibility of tracking facts about meanings by tracking facts about behaviour. It must be conceded that the number of speakers' performances is finite, as speakers are finite beings. Kripke's contention, then, is that no meaning can be determined by extrapolation from a finite number of cases in which speakers use a given linguistic expression. His argument aims to prove that two linguistic expressions with the same use might diverge in extension – truth-theoretic value – and thereby in meaning.[4] Kripke's thought experiment[5] presents a linguistic community whose members use the expression "quus" the same way English speakers use the expression "plus". In order to know what "quus" means, one starts by observing how speakers use it and then proceeds to extrapolate the rule that governs their performances. One can make the hypothesis that "quus" means the addition function. However, there are many different functions that accord with the finite list of speakers'

[4] I follow Boghossian (1989) and Hale (1997) in distinguishing the underdetermination objection from the error/normativity objection in Kripke's rule-following considerations. The distinction is justified because the underdetermination objection stands even though a principled distinction between patterns of use that are meaning constitutive and those that are not is accepted. Suppose we can justify the claim that speakers are disposed to make mistakes in computing numbers that are very large. We can single out those computations as the effects of dispositions to make mistakes and conclude that the patterns of use caused by those dispositions are not meaning constitutive. However, even in that case, the challenge posed by the underdetermination objection remains unanswered, for no matter how we select the patterns of use that are meaning constitutive, they are finite.

[5] Actually, this is not the way Kripke presents his argument on the finiteness of speakers' dispositions. Here I follow the version of Kripke's argument given by Horwich (1995 p. 364). I choose Horwich's version because it helps recognise in Kripke's argument the line of reasoning for underdetermination that is similar to Quine's arguments: two theorists might come up with theories of meaning that are incompatible, though equally supported by the empirical evidence.

performances. To show this, it is sufficient to choose a number *n* so large that no human being is able to compute and then define the following function:

x quus y = the sum of x and y if x, y < n
x quus y = 5 otherwise.

The conclusion of Kripke's argument is that one cannot decide which function is meant by the use of "quus". "Quus" and "plus" might have different extensions, while having the same use. Like Quine's conclusion, assignments of meanings are underdetermined.

Both Quine's and Kripke's arguments lead to meaning scepticism. The sort of scepticism at stake is ontological as there is a move from underdetermination to indeterminacy. Their arguments show that we are not in a position to know which translation manuals and what assignments of meaning properties to expressions are true, but their conclusions have an ontological import. There are no facts of the matter about translation and meanings. On their view, the theory of meaning has no subject-matter and assertions in the field of the theory of meaning cannot be taken at face value as attempts to describe objective features of the world. The move from underdetermination to indeterminacy is justified within any metaphysical picture according to which meaning properties supervene[6] on the distribution of naturalistic properties – the properties that are accessible through the vocabulary of natural sciences – without being reducible to them. Indeed, underdetermination shows that the empirical evidence underdetermines the theories of meaning: the same evidence confirms incompatible theories of meaning equally well. The point is that the empirical evidence consists in facts concerning speakers' behaviour and the environment in which it takes place. These facts are constituted by the distribution of naturalistic properties or properties that supervene on naturalistic properties. Underdetermination, then, shows that there might be the same distribution of naturalistic properties and two different distributions of meaning properties. Hence, meaning properties do not supervene on the distribution of naturalistic properties. As a consequence, underdetermination puts us in front of the dilemma between dogmatic dualism and indeterminacy: either meaning properties are real but independent of the distribution of naturalistic properties or meaning properties are not real. Quine and Kripke (at least according to many

[6] For a discussion of the relationship between underdetermination, indeterminacy and supervenience see Van Cleve (1992).

commentators) chose indeterminacy.[7]

Doubts can be cast on the soundness of Quine's and Kripke's arguments by questioning whether facts about behaviour and observational evidence are the only facts that are relevant to meaning discourse. One might, for example, suggest that the restriction to behaviour is too strong a constraint, as the structure of the brain and neurophysiological processes are relevant to linguistic performances. I do not want to pursue this line of argument against Quine's and Kripke's attacks to the notion of meaning. Rather, I accept Quine's view that varieties in the inner life of speakers make no difference to our judgments about their linguistic competence unless those varieties manifest themselves in behavioural differences. Nevertheless I hold that the conception of meaning as use does not fall prey to Quine's and Kripke's sceptical arguments. In the next section, I will expound the contrast between the use conception and the truth-theoretic conception of meaning.

2. Two Conceptions of Meaning

There are two main alternative ways of explaining the notion of meaning. One explains meaning in terms of language-world relations. The other explains meaning in terms of speakers-language relations. The first view holds that meaning properties are constituted by truth-theoretic properties.[8] This conception of meaning is captured by the idea that to know the

[7] In *Theories and Things*, Quine makes the difference between underdetermination and indeterminacy vivid. He claims that even if we made a choice between two alternative theories in physics, equally supported by all possible empirical evidence, the choice of the correct manual of translation would still remain underdetermined by physical facts as described by the theory we chose. If synonymy and translation are not determined by physical facts, then the theory of meaning is not a factual discourse. Cf. Quine (1981 p. 23): "Suppose, to make things vivid, that we are settling… for a physics of elementary particles and recognise a dozen or so basic states or relations in which they may stand. Then when I say there is no fact of the matter as regards, say, the two rival manuals of translation, what I mean is that both manuals are compatible with all the same distributions of states and relations over elementary particles. In a word, they are physically equivalent". For a discussion of this point see also Hookway (1988 ch. 8). It is worth noting that Quine's arguments do not presuppose reductionism, but the much weaker view that meaning properties supervene on the distribution of naturalistic properties. This is not to say that Quine was not a reductionist.

[8] This is the conception of meaning that underlies Davidson's programme. In this essay, I use "truth-theoretic theories of meaning" to refer to Davidsonian theories of meaning.

meaning of an expression is to know the contribution it gives to the truth-conditions of the sentences in which it may occur. To know, say, the meaning of "London" is to know that "London" refers to London, the meaning of "cat" that "cat" is true of all and only cats. On this conception, the theory of meaning for a language L takes the form of a theory of truth in L. The alternative conception of meaning holds that certain aspects of the use of expressions are constitutive of their meanings. According to this conception, speakers-language relations and not language-world relations are constitutive of meaning properties. This is the view that to have a certain meaning is to be governed by certain basic and explanatorily fundamental patterns of use. In general, for each expression e there is a regularity of the form: all uses of e are explained in virtue of its possession of the acceptance property A(e), where A(e) specifies the circumstances in which certain sentences containing e are accepted.[9]

Every theory of meaning has to face two orders of explanations.[10] The first concerns the fact that meaning is grounded on use. We need to explain the fact that the meaning of a linguistic expression depends on the manner in which speakers use that expression. The second concerns the fact that meanings determine the representational aspect of language. We need to explain how meanings turn expressions into tools for representing things. To put it another way, we need to explain how the truth-theoretic properties of expressions depend on their meanings. The dependence of truth-theoretic properties on meanings is captured by the meaning-to-truth schemata.[11] For example, if "e" is replaced by singular terms, we get the following schema:

For any x, if e means C then e refers to x if and only if x is c.

If "e" is replaced by predicates, we get the following schema:

For any x, if e means F then e is true of x if and only if f(x).

According to the truth-theoretic conception, the schemata are truisms that follow analytically from the view that meaning properties are constituted by truth-theoretic properties. On the use conception matters stand differently, because meaning properties are not taken to be constituted by truth-theoretic properties. Yet, both sides agree on the generic view that

[9] Cf. Horwich (1998 p. 45). I refer to Horwich's (1998, 2005a) theory as a paradigm of theory inspired by the use conception of meaning.
[10] Here I draw on Gupta (2003 p. 655).
[11] Cf. Horwich (1998 p. 7).

use determines meanings and, therefore, that use determines truth-theoretic properties: if two expressions are used in the same way in circumstances of the same kind, they express the same meaning, and if two expressions express the same meaning, they have the same truth-theoretic property (context dependent expressions apart).

This generic view, however, may be given two interpretations, a strong one and a weak one. The strong interpretation addresses an explanatory issue, while the weak interpretation addresses an epistemological issue.[12] The *explanatory issue* deals with the question: given the use of a linguistic expression, why does that expression have a certain truth-theoretic property? The answer to this question calls for an explanation that goes hand in hand with the analysis of truth-theoretic notions. Think, for example, of the truth-theoretic notion of *being true of*. The explanation of why a given predicate is true of the members of a certain set in virtue of its use takes the following form:[13]

(1) We analyse the notion of being true of:
For any e, for any x, e is true of x if and only if R(e, x).
(2) We scrutinise the use of an expression E.
(3) We infer that E bears the relations R to the members of a certain set.
(4) We conclude that E is true of each member of that set, i.e. that that set is the extension of E.

In general, then, the explanation of why a certain expression has a certain truth-theoretic property in virtue of its use proceeds from the investigation of the use of that expression to the claim that such expression stands in a certain relation to things of a certain type and from that to the conclusion that that expression has a certain truth-theoretic property.

On the other hand, the *epistemological issue* deals with the question: given the use of a linguistic expression, what puts us in a position to assign a certain truth-theoretic property to it and to rule out any other assignment? The epistemological issue, then, takes as its central concern the justification of our assignments of truth theoretic-properties to expressions. With respect to the epistemological issue, to show that the truth-theoretic property of an expression depends on its use amounts to explaining how the manner in which speakers use that expression justifies

[12] For a discussion of the difference between the explanatory issue and the epistemological issue see Horwich (1995 p. 365 fn 9) and Lance and Hawthorne (1997 ch. 4).
[13] Cf. Horwich (1995 pp. 362-3).

the assignment of that truth-theoretic property to that expression. Any answer to the explanatory issue is also an answer to the epistemological issue. On the contrary, an answer to the epistemological issue might be distinct from and independent of any answer to the explanatory issue. A theorist who holds that truth-theoretic notions are not in need of analysis or reduction might address the epistemological issue and avoid the explanatory issue. It is worth noting, then, that while the epistemological issue needs to be answered, the explanatory issue might not be in the agenda of all theorists.

Certainly, the truth-theoretic conception and the use conception are on a par in respect of the explanatory issue. It is not obvious, however, that they are on a par also in respect of the epistemological issue. I argue that they are not and this fact has philosophically important consequences, in particular relative to the underdetermination arguments. The philosophically interesting point concerns the relation between theories of meaning, theories of truth and confirmation by the empirical evidence. According to the truth-theoretic conception of meaning, the evidence confirms the theory of meaning for a language L to the extent that it confirms the theory of truth in L, since the theory of meaning for L takes the form of the theory of truth in L. On the contrary, according to the use conception of meaning, the empirical evidence confirms the theory of meaning by confirming assignments of acceptance properties to expressions. Whether and how, on the use conception, the test against the empirical evidence is needed to confirm assignments of truth-theoretic properties depend on the account of the meaning-to-truth schemata that the use conception is able to provide. Suppose the meaning-to-truth schemata are justified independently of the empirical evidence.[14] Then, if a use theory of meaning for a language L is confirmed, the truth-theoretic properties of L-expressions can be derived from the instances of the meaning-to-truth schemata. In that case, the empirical evidence is employed for the confirmation of the theory of meaning for L but not for the confirmation of the theory of truth in L, in the sense that assignments of truth-theoretic properties need not be checked directly against the empirical data. In other words, the truth-theoretic conception of meaning needs to employ the empirical evidence to confirm the theory of truth in L and, doing so, to confirm the theory of meaning for L, making the assumption that (i) meaning properties are constituted by truth-theoretic

[14] Here I use "independently of empirical evidence" to mean that the meaning-to-truth schemata need not be directly tested against the empirical evidence, as they stand at the centre of the web of belief the same way mathematical and logical truths do.

properties and (ii) the theory of meaning for L takes the form of the theory of truth in L. By contrast, on the use conception, while the empirical evidence is certainly needed to confirm the theory of meaning for L, it remains to be settled as to whether we must invoke the empirical evidence also for the confirmation of the theory of truth in L.

We can make the point clearer by putting it another way. As stated above, according to the truth-theoretic conception, meaning properties are constituted by truth-theoretic properties. For example, the property of meaning DOG is constituted by the property of being true of all and only dogs:

> For any e, for any x, e means DOG if and only if e is true of x if and only if x is a dog.

According to the truth-theoretic conception, the confirmation of the statement, say, that "dog" in English means DOG proceeds in accordance with the following steps:

> (1) From the epistemology of meaning we state the following principle:
> For any e, if e is true of all and only dogs, then e is used in a certain way.
> (2) We hypothesise that "dog" is true of all and only dogs.
> (3) We derive that "dog" must be used in a certain way.
> (4) We check whether it is true that "dog" is used that way.
> (5) If it is true that "dog" is used that way, then we conclude that the hypothesis that "dog" is true of all and only dogs is confirmed.
> (6) If the above hypothesis is confirmed, we conclude that "dog" means DOG from the assumption that the property of meaning DOG is constituted by the property of being true of all and only dogs.

By contrast, according to the use conception of meaning, the theory of meaning for a language L is confirmed to the extent that it succeeds in disclosing the explanatorily fundamental acceptance properties of L-expressions. After that, the truth-theoretic properties of L-expressions must be fixed and it is an open question as to how this can be done. Maybe the appeal to the empirical evidence is necessary, maybe not. That much depends on the account of the meaning-to-truth schemata. But if the appeal to the empirical evidence is not necessary, then we can conclude that the use conception might adopt a totally different strategy than the