1 Editorial Introduction: History of the Philosophy of Language[1]

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The Philosophy of Language has a history almost as long as the history of Philosophy itself. Plato's *Cratylus* and *Sophist*, and Aristotle's *De Interpretatione* and *Prior Analytics*, contain important reflections on topics such as the conventionality of language, the subject–predicate structure, valid inference and its relations with the structure of language and thought, truth, or the ontological implications of linguistic categories. Medieval philosophers carried out studies of reference ("suppositio") and generalization as sophisticated as any. The *Port-Royal* logicians, Hobbes and Locke took those discussions forward, and, in the latter case, anticipated current concerns about the way natural kind terms work. In the following few pages, however, I will limit myself to drawing a very rough (and rather idiosyncratic) map of the terrain of the contemporary scene, as it was set out in the work of Frege, Russell and the early Wittgenstein – the presupposed common background, taught to beginners in the discipline, for the themes to be further explored from a present-day perspective in the ensuing chapters. In the first part of the chapter, I will outline some core issues as they are presented in what in my view is the insightful systematic articulation of Frege's and Russell's themes in Wittgenstein's *Tractatus Logico-Philosophicus*. In the second part, I will sum up the main issues, describe some contributions to them in Frege, Russell, Wittgenstein and other historical landmarks, and indicate how they are approached today, as presented in the ensuing chapters. The introduction concludes with a brief discussion of research methods and problems in the field.

Meaning and Modality in the *Tractatus*

The core issues in the philosophy of language are first put forth with compelling self-conscious depth in Wittgenstein's *Tractatus Logico-Philosophicus*, his appraisal of the presuppositions of Frege's and Russell's Logicist Program

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– even if the book would not have been possible without Frege's and Russell's ground-breaking research. It is true that, in contrast with Frege's and Russell's works, the *Tractatus* is an opaque piece, whose claims (and even more, the reasons, arguments or at least motivations for them) are difficult to make out, in this respect a reflection of the rather dogmatic methodological attitude of its author. It is also true that such dogmatism appears to have precluded Wittgenstein from seeing the, in some cases glaringly manifest, difficulties for the views he had put forward, and the extent to which the alternative views of his two predecessors, which he had haughtily dismissed, were much more sensible. However, in my view it was in the *Tractatus* that the proper dimensions and interconnections of the main problems confronted afterwards in the discipline are clearly envisaged for the first time. Neither Frege nor Russell appears to have paid much thought to what has become, since the *Tractatus*, a core issue in the philosophy of language – the link between grasping the representational contents of thoughts and sentences, and knowledge of modality; or so I will try to suggest in the next few paragraphs. For the most part they aim not mainly to establish this perhaps idiosyncratic historical point, but to sketch out these core problems, so that later we can trace the relations with how they are approached today, as presented in the chapters to follow.

Those core problems in the philosophy of language only perspicuously adumbrated in the early history of analytic philosophy in the *Tractatus* concern the relations between meaning, modality and our knowledge of them. Frege's project, which he pursued relentlessly for most of his intellectual life and whose (from his perspective) tragic failure Russell spotted, was the *Logicist Program*, aimed at proving that arithmetic reduces to pure logic. Frege's work was hardly a fully-fledged failure: he had come very close to at least reducing arithmetic to logic and set theory, along the lines used later in Russell's and Whitehead's *Principia* or in the independently pursued Cantorian program. In the process, he came up with outstandingly significant conceptual innovations, from modern logic and semantics to an original and influential view in the philosophy of mathematics that many still think fundamentally correct. However, a full appraisal of the epistemological and ontological yields of the project required an examination of the epistemological and ontological status of logic and logical validity themselves; and that in its turn leads to a thorough examination of the nature of the representational devices through which we carry out logically valid inferences: natural language and the thoughts it conveys (what we may call a *theory of intentionality*). Frege and Russell somehow saw this, and in fact made suggestions about the matter (outlined below) at times more sensible than those in the *Tractatus*, at times simply incorporated into it. But it is only in that work, I think, that the nature of the problems and their interconnections is systematically realized, through the

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realization that representation in natural languages and in thought is inextricably tied up with discrimination between possibilities.

Notoriously, the *Tractatus* contains a flawed theory of intentionality, the so-called "picture theory"; but, more than its failures, what is interesting for our present purposes is to appreciate what it set out to achieve – especially how Wittgenstein hoped that it would deliver what in his view Frege and Russell had failed to provide: a philosophically adequate account of logical validity and hence of the foundations of their *logicist* project.[3] To put it in the metaphor he later used in the *Investigations*, criticising his earlier views, Wittgenstein's objection in the *Tractatus* to the view on the nature of logical validity that Frege and Russell had defended is that it does not account for the "sublimity" of logic: they did not account for the characteristic modal properties of logical truths and validities, and our knowledge thereof, as resulting from essential properties of the representational means in which they are cashed out. It is such an account, according to him, that the picture theory provides.

According to Frege and Russell, logically valid propositions, and inferential transitions among them, are distinguished by their *maximal generality*; for instance: given that *a* equals *b*, and *b* equals *c*, we can infer that *a* equals *c*, no matter what *a*, *b* and *c* are. According to the *Tractatus*, however, this is wrong (*Tractatus* 6.1231). On the one hand, some logical truths are not literally speaking general (*if Hesperus is Phosphorus, and Phosphorus is Venus, then Hesperus is Venus* is *itself* a logical truth); on the other, a general truth may well be only accidentally true (we can express in purely general terms the claim that there are infinitely many things, which according to Wittgenstein is not a logical truth). Logical validities are *necessary*; and they are *a priori*.[4] Frege's and Russell's proposals do not account for this crucial fact: why should *maximal generality* entail *necessity* and *apriority*? It was the fact that, in his view, the picture theory accounted for it that mainly recommended it in his eyes. The picture theory is relevant to solve the problem because for Wittgenstein logical validities are expressed in natural languages (*Tractatus* 5.5563) – or the thoughts they convey – whose essential representational properties the picture theory characterizes. Artificial languages, far from being "ideal languages" worth studying in their own right as more adequate to carrying out valid inferences – as Frege and Russell thought – are mere "frictionless planes"; they are useful fictions whose study is a convenient means to exhibit in a simpler way the logical properties of our ordinary assertions and thoughts.

Aside from its motivation as a way of accounting for the modal properties of logical truth and validity, Wittgenstein supported his picture theory of intentionality arguing that only such a theory accounts for two fundamental facts about representation in language and thought. First, we understand linguistic representations and grasp thoughts (at least in paradigm cases, let us say, so as not to prejudge any relevant issue) without knowing whether or not they are

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correct, whether or not the represented reality is in fact as represented; I will summarize this henceforth with the slogan "representations may fail". Second ("representations may be new"), we can understand or grasp immediately, without further explanation, representations that we have not encountered before.[5] How is the picture theory supposed to deal effectively with these explanatory issues? (There will be no point in considering the further issue of whether it really is the only theory that accounts for them.) The picture theory, as I understand it, ascribes to any intentional system, i.e., any system exhibiting the two properties to be explained, two crucial semantic features, which we may describe as an *external* and an *internal* one. The external ingredient comprises a lexicon and the correlations of the items in it with independent objects, correlations which Wittgenstein thought of as consisting of implicit ostensive definitions. The internal ingredient is an abstract syntax applying to the items in the lexicon which signifies, by way of what Goodman (1976, 52) calls *exemplification*,[6] identical relations between the items correlated with them by the external ingredient. It is the latter feature that makes sentences and thoughts into *pictures*: the distinguishing feature of pictures is that they represent properties that they themselves exemplify; they represent thanks to the fact that there is a range of properties they literally *share* with the represented situations.

Let us see how this is supposed to solve the first problem, that representations may fail. The syntax determines a class of well-formed elementary sentences; not just any concatenation of items in the lexicon is acceptable, only some are permitted. Each of them is in that respect a *possibility*: it is possible to say it, as opposed to abstaining from saying it, independently of the others. *Saying* is here the lowest common factor of different speech acts – asserting, ordering, conjecturing, requesting, and so on – whose distinguishing differences Wittgenstein thought irrelevant for his concerns. The syntax thus determines a class of maximal "discourses" – allowed combinations of the two designated possibilities for each elementary sentence. Correspondingly, given that the syntax is *shared* by the lexicon and correlated items, it determines the possibility that the combination of items corresponding to the names in any given elementary sentence (a state of affairs) obtains, and the possibility that it does not obtain. It determines thereby a corresponding logical space of maximal combinations of these two possibilities for each state of affairs; only one of them can be actualized, constituting the actual world. What is required to understand a sentence is to know the interpreted lexicon from which it is built, and its logical syntax; what is thereby known is a possible state of affairs, the class of maximal combinations constituting the logical space compatible with its obtaining, what Wittgenstein calls (following Frege) the sentence's *truth-condition*; it is not required to know whether or not this class includes the actual world.[7]

According to this, all (and only) truth-conditions are (contents of) possible sayings, not only those expressed by elementary sentences. Some appropriate set of expressions (the "logical constants", on the Tractarian account) is needed, to gain the additional expressive potential needed to express all truth-conditions. But the claim made about the explanatory virtue of the picture theory for the case of elementary sentences is intended to apply also to complex sentences including these expressions. Understanding them requires, according to the picture theory, knowing the interpreted lexicon, their logical syntax and the identical "syntax" in the world signified by exemplification, plus the set of logical constants needed in order to express every possible truth-condition thereby determined. This assigns to any non-defective (neither tautologous nor contradictory) sentence a truth-condition, without thereby establishing whether or not it actually obtains. Wittgenstein (*Tractatus*, 2.1511; cf. *Investigations*, §§ 95, 194) particularly liked the fact that this little theory accounts for the first problem of intentionality, that representations may fail, while preserving an essential connection between linguistic representations and the world – and thus representations are of real items, not some intermediate ghosts, as in representationalist accounts of perceptual experience. This is achieved in that the represented possible states of affairs are made of real objects, constituting the actual world (all possible worlds, given that all lexical items are on the Tractarian view Kripkean "rigid designators", designating the same entity with respect to all possible worlds) and of equally real, possibility-determining, "syntactical" relations between them.

Accounting for the second explanatory issue (that representations may be new), assuming the picture theory as presented, is straightforward. Knowing the lexicon, the logical syntax that as we have seen signifies by exemplification, and the relevant set of logical constants suffices for understanding sentences beyond those that one has in fact encountered; in contrast, the meaning of any new lexical item must be explained to us.

Finally, this is how the picture theory is supposed to account for the "sublimity" of logic, the fact that we know *a priori* necessary truths and relations of necessary truth preservation, to conclude this sketchy outline: "It is the peculiar mark of logical propositions that one can recognize that they are true from the symbol alone, and this fact contains in itself the whole philosophy of logic" (*Tractatus*, 6.113). If the relations that determine which states of affairs are possible are reflected by identical relations determining which combinations of lexical items are logico-syntactically well formed, we have at the very least the impressionistic beginnings of an explanation. Knowing the facts that determine which possibilities there are, which ones correspond to a given saying, and which ones, expressed by a given saying, are included in the ones expressed by others is already a presupposition of understanding those (or any) sayings. Logical truth is just truth with respect to all possibilities, and

logical validity the containment of all the possibilities for the premises in the possibilities for the conclusion. All these matters are determined by the logico-syntactical relations determining well-formedness, signified by exemplification (what I called the "internal" semantic relations). No particular set of "external" semantic relations (no specific lexicon, set of correlations with external objects) must be known for that, although some must; in that respect, the knowledge might be considered *a priori*.

I have summarily sketched the picture theory of representation that appears to be propounded in the *Tractatus*, the evidence allegedly supporting it, and how it is supposed to deal with what appears to be its main motivation, providing an account of the modal properties of logical truths and validities and our *a priori* knowledge thereof. But there are good reasons to remain sceptical about this account, to say the least. For starters, when one leaves behind the toy examples that Wittgenstein considered early on (such as three-dimensional models of car accidents) and moves to the paradigm cases to which the theory is supposed to apply – linguistic representations in natural languages and the thoughts they express – it seems unbelievable that there are any properties shared by the representation and the objects they are about. How could identical relational properties, no matter how abstract, relate lexical items to determine logico-syntactical well-formedness, on the one hand, and the items they stand for to determine possible situations, on the other? Agreed, this is not obviously wrong. Wittgenstein mentions, to justify his view, the case of transitive relations and the sentences representing them (*Tractatus*, 3.1432). At first sight, the syntactic resources that "accusative" languages and "ergative" languages use to represent transitive eventualities are indeed very different. However, some grammarians argue that, at a sufficiently abstract level, all languages use the same syntactical relations (Baker, 1997). Granting this, however, does not yet take us to the claim that *the very same* abstract syntactic relations are instantiated in the represented transitive eventualities.

Aside from this, the theory appears to be plainly false, and therefore actually unable to provide the explanations predicated of it. If the picture theory were true, at most elementary logical validities would be necessary, and known *a priori*. But modal intuitions as strong as those establishing the necessity and apriority of elementary logical validities credit the same modal status to *red is a colour* or *nothing can be entirely red and entirely green*, and the suggestions by Wittgenstein to deal with these cases on behalf of his theory lead nowhere; not to mention his suggestions of how to deal with mathematical truths, or alleged philosophical truths, like the picture theory itself. And there also are Kripkean examples such as the necessity, given its truth, that *water contains oxygen*, also established by compelling modally relevant intuitions (more on them below). None the less, even though the picture theory stands as refuted

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as any philosophical view might be, one can see how it is supposed to account for some philosophically relevant data; and, in so doing, it draws attention to the data: there must be a philosophical account of logical validity, which should explain, or at least explain away, the "sublimity" of logic – our *a priori* acquaintance with modal reality manifest in this case; such an account should rely on a philosophical account of intentionality; a philosophical account of intentionality should explain our capacity to understand new thoughts, and our capacity to understand false thoughts.

Some psychologists are prouder of discovering "effects" (unexpected data for any theory to account for) than of the theories they put forward to account for them: the theories will probably be superseded, while the effects will probably remain. A similar attitude might well prevail in philosophy. The picture theory highlights what in my view makes the *Tractatus* important, which is the conglomerate of philosophical "effects" just mentioned. In the second section, I will indicate how they (and related suggestions by Wittgenstein's predecessors) have been developed in the current literature, as discussed in the ensuing contributions. I will refer the reader to the chapters in which further elaboration can be found, expanding only on a few issues not taken up by our contributors.

Contemporary Themes from Frege, Russell and the *Tractatus*

(i) *Reference*. Genoveva Martí's chapter, "Reference", presents the debates that have occupied centre stage in contemporary philosophy of language between the descriptivist accounts rooted in the work of Frege and Russell and the New Theory of Reference put forward since the 1970s by philosophers such as Burge, Donnellan, Kaplan, Kripke, Perry and Putnam. Here I will present some differences between Frege's and Russell's forms of descriptivism – in the *Tractatus*, Wittgenstein hails Russell's Theory of Descriptions as a philosophical turning point, adopting the Russellian view.

The core claim of the Theory of Descriptions (cf. Neale's (1990) excellent discussion) is that, in at least one of their semantic functions, definite descriptions such as "the King of Spain" or "my father" make contributions to the contents expressed by sentences in which they occur analogous to those of quantifiers such as "every" or "some", and contrasting with those of genuinely referential expressions, such as some proper names and indexicals. Russell himself made the point by contending that descriptions are "incomplete symbols" which, having merely "contextual definitions", lack a meaning of their own, and disappear on analysis; but this was just a product of the theoretical tools – the formal system – by means of which he presented the view. Thus, consider a sentence such as (1):

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(1)   The King of Spain is tall.

The way Russell put it, the main claim of the theory is that, in at least one of its semantic interpretations, this sentence expresses a content equivalent to the one expressed by (2) – a more or less strained natural language equivalent of (3), (1)'s formalization in the sort of formal system Russell was using, assuming the obvious translation key.

(2)   Someone is such that he is King of Spain, there is no King of Spain other than him, and he is tall.

(3) $\exists x\ (Kx \land \neg\exists y\ (Ky \land y \neq x) \land Tx)$

Indeed, in (2) the definite description has vanished as a specific constituent, distributed into quantifiers, negation, and the identity relation. However, as Neale explains, this aspect of Russell's view can be shown to be idiosyncratic by presenting the core of Russell's theory by means of a different formal system.

In contemporary semantics, quantifiers are analysed in the framework of the theory of Generalized Quantifiers. I refer the reader again to Neale (1990) for additional details and references; Josh Dever's chapter in this book, "Formal Semantics", has a useful introduction to the use of formal frameworks in semantic theorizing, and, in Section 7, further information about the Generalized Quantifiers framework. In an intuitive version of this framework, quantifiers such as "every" and "some" contribute to express quantity relations between the classes of objects to which two predicates apply. For instance, "some writer smokes" expresses the claim that the class of writers and the class of smokers share at least one object; and "every writer smokes", the claim that the difference between the class of writers and the class of smokers has no members. One advantage of this framework, relative to the one Russell was using, is that it allows us to account for other similar expressions, such as "few", "most", "many", etc.

In this framework, what I take to be the core of Russell's theory can be put like this: in at least one of its semantic functions, "the" is an expression in the general category of determiners, including also "every", "some", "most", "few", "many" etc; when it occurs in sentences of the form *the P Q*, it helps to make the claim that the class to which *P* applies has just one member, and it is fully included in the class to which *Q* applies. Put in this way, descriptions do not disappear after analysis: in the semantic analysis, "the P" is as much a specific constituent as "every P" in "every P Q". What remains is what I take to be the core claim of a Russellian Theory of Descriptions; to repeat: in at least one of its semantic functions, definite descriptions contribute to making general, quantificational claims, exactly like quantificational expressions such

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as "every child" do, in contrast with the singular claims made with the help of genuine referential expressions such as some proper names and indexicals.

Before moving on to explain what this contrast might be between making singular and general claims, I need to elaborate on a few issues I have passed by quickly in the previous paragraphs. In the first place, I have been speaking of *at least one* of the semantic functions of definite descriptions because, as we are about to see once we have said more about the difference between singular and general terms, the Russellian should allow for the possibility that definite descriptions also have a referential function. Russell himself, and many Russellians, reject that view; but the core Russellian claim, I take it, is only that descriptions behave like quantifiers in at least one of their semantic uses. The second warning I need to make at this point is that I have been ignoring issues of context-dependence. Thus, "tall" in (1) is a context-dependent expression: what counts as being tall in a context differs from what counts as such in other context. Also, for the predicate "King of Spain" with which "the" forms the definite description in (1) to apply to just one object, some hidden context-dependence must be presumed; it might be that the predicate is somehow "*present* King of Spain", or that quantificational expressions somehow presuppose a contextually given "domain of discourse". The other example of definite description I mentioned, "my father", is more obviously context-dependent. Kent Bach's chapter, "Context Dependence", discusses this issue in general, and Dever's chapter, "Formal Semantics", describes ways for formal theories to encompass the phenomenon.

Let us go back now to the contrast between general and singular claims. Following Kripke (1980, 14), by relying on the Tractarian view that a crucial component (if not the whole) of the contents of sentences and thoughts that we grasp are their *truth-conditions* (the way they discriminate between possibilities, those relative to which the relevant content would obtain from those relative to which it would not) we get the following characterization. When we consider different possibilities for a general claim such as "every writer smokes" to be true, the smoking writers in some of them might well differ from those in others; all that matters is that all writers in each possible state of affairs smoke. The same applies to definite descriptions such as "the first Spaniard to win the Tour de France", in the sense that Russell's Theory of Descriptions captures. The false sentence "the first Spaniard to win the Tour de France was born in Cuenca" is easily intuitively understood in such a way that it selects possible worlds where F. M. Bahamontes, the actual first Spaniard to win the Tour de France, was born in Cuenca rather than being born in Toledo as in fact he was, but it also selects possible worlds where the actual second Spaniard in winning the Tour, L. Ocaña, who was actually born in Cuenca, is in fact the first Spaniard to win the Tour. In other words, the person satisfying the description might differ from possibility to possibility, among those where the content obtains.

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However, only worlds of the first kind are selected by "F. M. Bahamontes was born in Cuenca". In this sense, definite descriptions are not "rigid designators": they pick out different individuals with respect to different worlds; but proper names such as "F. M. Bahamontes" (and indexicals such as "this man", uttered pointing to the same person) are.[8] These "intuitions of rigidity", the fact that when we consider possible states of affairs compatible with the truth of a given utterance we keep fixed the denotation, if any, of the referential expression in the actual state of affairs, is the most important mark distinguishing singular from general claims. Kripke pointed out that, as we just confirmed, "we have a direct intuition of the rigidity of names, exhibited in our understanding of the truth conditions of particular sentences" (Kripke 1980, 14; cf. 6, 62).

Russell might have been sensitive to this intuition. In the famous chapter "Knowledge by Acquaintance and Knowledge by Description" in *The Problems of Philosophy* (p. 30), after asking us to consider the use that Bismarck himself makes of "Bismarck" to refer to himself, he says: "Here the proper name has the direct use which it always wishes to have, as simply standing for a certain object, and not for a description of the object." Russell is contrasting here a "direct" use that names "wish" to have, in cases in which we understand them by being "acquainted" with their contents (as Bismarck is with himself), with the descriptive one they most of the time have, according to him, for reasons we are about to see; this "direct use" might well be that rigid use that our intuitions about the truth conditions of particular sentences reveal, according to Kripke. In Russell's direct use, the name simply stands for the bearer; the bearer is the name's content: no wonder that, when we consider possible situations relative to which sentences including the name are true, all that we have to examine is how things stand with the bearer in each situation.

Most of the time, however, proper names such as "Bismarck" (for instance, when they are used by people other than Bismarck himself) express according to Russell the contents of definite descriptions; understanding them involves that descriptive knowledge, and not an acquaintance with their referents that, for Russell, would be impossible to have in that case.[9] Why is this? A main epistemological consideration for Russell and Wittgenstein – let us refer to it as *potential wreck* – is that, unlike when used by Bismarck himself, a use of "Bismarck" cannot guarantee the existence of a referent. In the "direct" use, however, the referent is the meaning; without referent there would be no meaning, for the name or for the sentences including it. Intuitively, however, even if Bismarck were a massive hoax and in fact there was no Bismarck, "Bismarck was Prussian" is meaningful in our mouths. Another epistemological consideration (*aspectual bias*) is that names with the same referent, such as "Hesperus" and "Phosphorus" (or a single name, for different users), might be associated with different purportedly identifying aspects of the intended referent, so that replacing one with the other in a sentence might intuitively

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alter its significance. *Aspectual bias* suggests that in the relevant cases the referent cannot be all that there is to the meaning of a referential expression; *potential wreck*, that the referent is not even a constitutive part of it.

The reader will find in Genoveva Martí's chapter considerations speaking in favour of Russell's form of descriptivism (fundamentally, the way it accounts for *aspectual bias* and *potential wreck*), and also the almost decisive reasons offered by Kripke and others against it. It is worth noticing at this point that Russell's (and Wittgenstein's) descriptivism was not exposed to the problem presented in Michael Nelson's chapter, "Intensional Contexts", Strawson's reduplication argument – that, intuitively, reference would be unacceptably indeterminate given descriptivism, for we cannot exclude that there are quali-tative duplicates of our intended referents. For, as we have seen, both Russell and Wittgenstein accepted the thesis of direct reference (that the referent exhausts the term's meaning-contribution; see also Martí's and Nelson's chapters for further clarification) for some expressions, which they thought were not subject to the two concerns of aspectual bias and potential wreck. Entities in this category that Russell mentions as objects of acquaintance and direct reference include the self (until Wittgenstein talked him out of it), sense data, and their universal qualities.[10] Wittgenstein himself is cagier, speaking merely of *simples* without giving any example; but, on the basis of some of the latter remarks in the *Tractatus*, his critical discussion of his previous views on the early sections of the *Philosophical Investigations*, and other indirect material, I think it is clear that he also had in mind sense data and their attributes. In any case, if the descriptions of entities such as Bismarck are allowed to include directly referential expressions to a self, or to the particular sense data a self is aware of, reduplication will not pose a problem; reference would be determinate, for it would not be solely based on qualitative identification. The Kripkean arguments that Martí presents, however, still show how implausible this Russellian–Wittgensteinian descriptivist conception of reference is.

Structurally, the alternative views proposed by partisans of New Theories of Reference do not differ much from the one we have just described; it is mostly the epistemology that changes. Some expressions (most proper names, including "Bismarck" in all of its uses, indexicals) refer directly; their referents are their contents, and for speakers to understand them they must be acquainted with their contents – but acquaintance is now conceived on the basis of a more lenient epistemology, allowing for acquaintance with the spatiotemporally remote. Not all proper names are like that, however; on most of those views, "descriptive" names (such as Gareth Evans's "Julius", which by definition refers to whoever invented the zip fastener, if anybody uniquely did) can be understood without any acquaintance with their referents, and are therefore excluded from the picture, even if partisans of these views are unclear about what their semantics is. The reader is referred to Martí's and Nelson's

chapters to find out how *aspectual bias* and *potential wreck* are supposed to be handled by New Theorists.

Although Frege's picture is also motivated by these two problems, and can be naturally classified as descriptivist, it in fact differs importantly from Russell's. The difference originates, I think, in the fact that Frege focused on the other use of definite descriptions I had in mind when, in presenting above the Theory of Descriptions, I spoke of "at least one of the uses" of descriptions. Suppose that, in telling an episode in the biography of F. M. Bahamontes, I say "and so, the first Spaniard to win the Tour de France might have been born in Cuenca". It is clear in the context that I am using "the first Spaniard to win the Tour de France" as a merely rhetorical alternative to "F. M. Bahamontes" or "he", to avoid boring repetitions of that name, presupposing that my audience is fully aware of the fact that Bahamontes was in fact the first Spaniard to win the Tour de France. This is a case of what Donnellan (1966) calls "referential use" of descriptions. There has been a debate confronting strict Russellians, for which these uses are merely "pragmatic", perhaps to be accounted for in the model of Gricean conversational implicatures (cf. Kripke 1977), those for whom definite descriptions are just semantically ambiguous between the referential and quantificational uses, and "contextualists" who reject the dichotomy as both parties in the debate understand it. François Recanati's chapter, "Pragmatics", introduces the reader to these debates. For our purposes, however, we only need to keep in mind both that the quantificational uses that Russell's theory accounts for undoubtedly exist, and that referential uses also exist, be they "semantic" or "pragmatic".

Now, the reader might check his or her intuitions to establish that in the referential case the expression works "rigidly": all the possibilities with respect to which my claim would be true concern F. M. Bahamontes, and not anybody else who happens to be according to those possibilities the first Spaniard to win the Tour de France. Frege had a semantic category of proper names ("Eigenname") in his system, including ordinary proper names, descriptions and indexicals; it seems clear to me that he was thinking of referential uses of descriptions as the paradigm case. This leads to a view rather different from the Russellian division between expressions understood by acquaintance with their contents, and expressions understood by definitional synonymy with general expressions, even if it is similarly descriptivist, and motivated by the same problems of aspectual bias and potential wreck.[11]

The main difference lies in that, instead of a dichotomy of types of referring expressions, the Fregean proposal has a dichotomy of semantic features for referential expressions (in fact for all expressions). The problem of *aspectual bias* is dealt with by ascribing to referential expressions a descriptive sense, in addition to the referent ("Bedeutung" in the original German). The problem of *potential wreck* is dealt with by classifying cases of reference failure as

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somehow derivative from cases of reference success. The most straightforward version of this proposal, due to Evans (1982) and McDowell (1977), would be a "disjunctivist" account, on which both cases are essentially different, the referent being an essential component of the meaning of a successful referential expression; but there are other, less radical variants (cf. Sainsbury 2005). Proposals along these lines may still be subject to Kripkean criticisms, this time not of views on which referential expressions are synonymous with descriptions, but rather of views on which descriptions are supposed to "fix their referents". The "two-dimensional" semantics mentioned in the next epigraph provides another framework for alternative neo-descriptivist, neo-Fregean contemporary perspectives on reference. I refer the reader again to Martí's and Nelson's chapters for a fuller appraisal than can be undertaken here.

(ii) *Meaning and modality*. As we have seen, in the *Tractatus* Wittgenstein was centrally concerned with accounting for the modal properties of logical truths: how it is that they are necessary, and how it is that, consistently with our potentially knowing their modal status, we can come to know them. According to his own remarks later, the picture theory is intended to provide the required explanations in a way that allows for the objectivity of the modal status of necessary truths, i.e., it avoids characterizing them as "mind-dependent" in any way. In spite of the failure of the picture theory, he was successful in convincing philosophers of the importance of the topic; and his logical positivist followers, such as Carnap or Ayer, were influenced by his suggestion that the way to approach the issue was through a theory of intentionality. They gave it an anti-realist, conventionalist twist, however. The view now was, in a nutshell, that the semantic rules of a given language, which have a conventional status, determine the space of possibilities and with it the necessary truths, which can be known by knowing those rules and are to that extent knowable *a priori* and analytic. Albert Casullo's chapter, "Analyticity, Apriority, Modality", carefully explains these concepts, providing important distinctions and clarifications. He presents Ayer's and Carnap's view, the main challenges to it in the work of Quine and Kripke, and critically evaluates these challenges.

To a large extent, recent debates about these matters have focused on the scepticism about our modal knowledge that Kripke's views in particular might engender, and to developments of the "two-dimensional" suggestions that Kripke's own work already intimates, which Casullo's chapter also helpfully introduces. As we have seen, Kripke (1980) argued that referential expressions such as indexicals and demonstratives, proper names and natural kind terms are *de jure* rigid designators – expressions that designate the same thing with respect to every possible world. This feature distinguishes them from other singular terms such as definite descriptions, which (putting aside referential uses) might also behave *de facto* as rigid designators, but *de jure* are not so.

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Kripke was well aware that his proposals created a philosophical puzzle. His view about referential expressions and alethic modalities entails the existence of *modal illusions*: truths that are in fact necessary appear to be contingent. Paradigm cases are instances of the schema *if n exists, n is F*, with a rigid designator in the place of "n" and a predicate signifying a hidden essential property of its referent in the place of "F". For the sake of illustration, let us replace "F" in the schema with "is-identical-to-Hesperus" and "n" with "Phosphorus":

(1)   If Phosphorus exists, Phosphorus is-identical-to-Hesperus

The existence of those modal illusions elicited by Kripke's views about referential expressions and alethic modalities is puzzling in the light of another compelling view about the epistemology of modality: that we have a reasonably reliable access to possible worlds. Kripke suggests this (to me, at least) when he states the intuition that a possible world "isn't a distant country that we are … viewing through a telescope … 'Possible worlds' are *stipulated*, not *discovered* by powerful telescopes" (Kripke 1980, 44); "things aren't 'found out' about a counterfactual situation, they are stipulated" (*op. cit.*, 49). Of course, according to Kripke himself we are not free to stipulate any possible world we want into existence; otherwise, it would make little sense to speak of modal illusions, such as those previously described. What the dichotomy of stipulation vs. discovery rather suggests is that we have a *prima facie* reliable access to modal reality – that, *prima facie*, what we conceive as possible *is* possible.

    This puzzle is not an outright paradox constituted by contradictory claims; that one has in general reliable access to the modal realm allows for mistaken modal impressions. However, Kripke's views suggest that modal illusions do not arise only in a few, systematically unrelated cases; on the contrary, a systematic and far-reaching pattern is predicted. To sustain modal reliabilism requires thus a philosophical account of the illusions consistent with it. Kripke is sensitive to this, and, in his characteristically nuanced, cautionary mood, he provides one: "Any necessary truth, whether *a priori* or *a posteriori*, could not have turned out otherwise. In the case of some necessary *a posteriori* truths, however, we can say that under appropriate qualitatively identical evidential situations, an appropriate corresponding qualitative statement might have been false" (Kripke 1980, 142). In cases such as (1), something more specific can be said:

    In the case of identities, using two rigid designators, such as the Hesperus-Phosphorus case above, there is a simpler paradigm which is often usable to at least approximately the same effect. Let "R_1" and "R_2" be the two rigid designators which flank the identity sign. Then "$R_1 = R_2$" is necessary if true. The references of "R_1" and "R_2", respectively, may well be fixed by nonrigid

designators "D_1" and "D_2", in the Hesperus-Phosphorus case these have the form "the heavenly body in such-and-such position in the sky in the evening (morning)". Then although "$R_1 = R_2$" is necessary, "$D_1 = D_2$" may well be contingent, and this is often what leads to the erroneous view that "$R_1 = R_2$" might have turned out otherwise. (Kripke 1980, 143–4)

What Kripke proposes here, cautiously, only as a possible model applying in some cases, is the blueprint for two-dimensional accounts; the central idea is that "an appropriate corresponding qualitative statement", different from the original, necessary one, which, unlike this "might have been false", is somehow mixed up with it, thus engendering the illusion of its contingency. Kripke refrains from making general claims about the applicability of this model. Nevertheless, his influential arguments against mind–body identity later in the *Naming and Necessity* lectures depend essentially on the premise that the model is the only available one that properly explains the facts at stake.

This core two-dimensionalist idea can also be invoked to deal with the other puzzling Kripkean category of the contingent *a priori*, although Kripke's indications about this application are less clear. As he also famously noted, if one stipulates that a designator *N* is to be used to refer to an object introduced by a description *D* that thus fixes its reference, one can be said to know thereby *a priori* "in some sense" (*op. cit.*, 63) the truth of the corresponding statement "*N* is *D* if *N* exists"; (2) provides an example, corresponding to (1):

(2)   Phosphorus is whatever appears as shining brightly in the east just before sunrise, if it exists.

To apply the model here we should have that, although what (2) says is a contingent proposition, there is "an appropriate corresponding qualitative statement" which expresses a necessary one. This would provide for the partial rescue that Kripke (1980, 63 fn.) envisages for the traditional view that everything *a priori* is necessary.

Kaplan (1989) had suggested related ideas, for specific examples of the contingent *a priori* involving indexicals, like "I am here now" or "I am the utterer"; Kent Bach's chapter, "Context-Dependence", discusses them. Kaplan invoked his distinction of two different semantic features of context-dependent expressions, indexicals such as "I", "here" and "now" in particular, a *character* that captures the standing meaning of the expression, and a *content* that consists of their truth-conditional contribution in particular contexts. Given a particular context, sentences such as "I am here now" express a contingent content; however, they are "character-valid" in that expressions in them have characters such that they will always express truths when uttered in any context.

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Finally, Kripke suggested that the availability of (what I am presenting as his blueprint for) the core two-dimensionalist explanation of the necessary *a posteriori* and the contingent *a priori* supplies an important role for conceptual analysis, compatible with the Aristotelian-essentialist view that there are *de re* necessities which can only be known through empirical research:

> Certain statements – and the identity statement is a paradigm of such a statement on my view – if true at all must be necessarily true. One does know *a priori*, by philosophical analysis, that *if* such an identity statement is true it is necessarily true … All the cases of the necessary *a posteriori* advocated in the text have the special character attributed to mathematical statements: philosophical analysis tells us that they cannot be contingently true, so any empirical knowledge of their truth is automatically empirical knowledge that they are necessary. This characterization applies, in particular, to the cases of identity statements and of essence. It *may* give a clue to a general characterization of *a posteriori* knowledge of necessary truths. (Kripke 1980, 159)

Kripke's and Kaplan's suggestions were taken up and developed in technically systematic ways in the two most influential articles originating the two-dimensional tradition after Kripke's inaugurating considerations, Stalnaker's (1978) "Assertion" and Davies and Humberstone's (1980) "Two Notions of Necessity". Other writers, including Chalmers (1996), Jackson (1998, chs 1–3) and Peacocke (1999, ch. 4) in particular, have subsequently elaborated on the idea.

(iii) *Compositionality and Semantic Theorizing*. As we saw, following suggestions in Frege and Russell as well as his own insight, Wittgenstein highlighted two pieces of data that any philosophical account of representational systems such as natural language should capture: the fact that we can understand sentences we have never encountered before, and the fact that in understanding declarative sentences (those susceptible of evaluation as true or otherwise) we typically grasp possibilities that need not be actual (truth-*conditions*). Both issues inform two of arguably the most successful and influential programs for understanding natural languages, initially propounded in the 1960s and leading to work that is still flourishing today. One is the Chomskian program in linguistics; the other is the tradition of formal truth-conditional semantics started in slightly different directions by researchers such as Richard Montague and Donald Davidson. Recent manuals introducing the very substantial explanatory achievements of the Montagovian and Davidsonian traditions such as, respectively, Heim and Kratzer (1998) and Larson and Segal (1996) show the extent to which the Chomskian program in linguistics and truth-conditional

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semantics in each of those versions are converging nowadays into a fruitful research program. James Higginbotham's chapter, "The Nature of Language", together with the ones already mentioned by Josh Dever, "Formal Semantics", and Kathrin Glüer, "Theories of Meaning and Truth Conditions", will provide the reader with further elaboration and references on these matters.

(iv) *Semantics and Pragmatics*. As already mentioned, Wittgenstein concentrated in the *Tractatus* on the representational properties of what he called *sayings*, whose core he took to be truth-conditions. Material from his lectures and conversations in the late 1920s and early 1930s shows that he was well aware that, as part of our mastery of language, we do not merely deploy declarative sentences susceptible of truth and falsity, but also, say, interrogative or imperative sentences not subject to truth-evaluation; we do not merely *assert* by means of language, or perform other similarly truth-evaluable speech acts, but we also *ask*, *request*, *promise*, and so on and so forth. The early Wittgenstein might have dismissed this point with a move made explicit much later by speech act theorists such as John Austin or John Searle – work presented in François Recanati's chapter, "Pragmatics". Those other acts may also be evaluated in terms of, say, their fulfilment or satisfaction or otherwise, if not truth or falsity. Their contents, which we grasp as competent speakers, then encode these *fulfilment* conditions, which might be entirely coincident with the truth-conditions of assertions, and which pose the same two problems that Wittgenstein highlighted: we can understand the fulfilment conditions of orders we consider for the first time, and we grasp them independently of whether or not they are actually fulfilled. The semantic undertaking may thus be characterized as purporting to systematically characterize these fulfilment conditions, using "truth" instead of "fulfilment" in an extended way. Contents in this generic sense appear to be what Wittgenstein meant by *sayings*, something very close to what Austin later called *locutionary acts*. Characterizing the nature of what, in addition to the potentially common contents or fulfilment conditions, distinguishes the different speech acts (what Austin called *illocutionary acts*) is one of the tasks left to pragmatics; the early Wittgenstein, in this way, did not overlook this task but simply dismissed it as unimportant for what he took to be his main concern – accounting for truth-conditions.

Something similar might be said about another task usually left to pragmatics, context-dependence in general and the working of indexicals in particular – but the reader should examine both Recanati's and Bach's chapters for developments and important reservations about the purely pragmatic nature of the meaning of context-dependent expressions. Frege had occupied himself with the topic, and, of course, the author of the *Tractatus* was greatly concerned at the very least with the way "I" functions.[12]

Notoriously, in his later writings Wittgenstein rejected his earlier dismissive attitude towards such "pragmatic" matters. In a much discussed programmatic paper, discussed again here in both Glüer's "Theories of Meaning and Truth Conditions" and Recanati's "Pragmatics", Strawson spoke of a "Homeric struggle" confronting, according to him, the truth-conditional formal semanticists with an opponent emphasizing instead the constitutive character in the philosophical account of meaning of notions such as intentional action, norms or conventions. The linchpin, according to Strawson, concerns the possibility of a sufficiently substantive explanation of the nature of *truth* and the *truth-*conditions that the "formal semanticist" appeals to. According to Strawson, such an account can only come from the role the notion has in the appraisal of speech acts such as assertion, which according to him gives the victory to the opponent. In recent discussions, Kripke's (1982) related reconstruction of the later Wittgenstein's remarks on the normativity of meaning has been very influential; many researchers have focused in particular on the bleak consequences for projects such as Chomskian linguistics or truth-conditional semantics that appear to follow from Kripke's account. José Zalabardo's chapter, "Semantic Normativity and Naturalism", takes up these matters. On a related note, different writers – some influenced by the later Wittgenstein and other philosophers in the "Meaning–intention–action" Strawsonian camp, such as Austin or Grice, others simply as a result of their paying close heed to the implications of the many forms of context-dependence present in our use of natural languages (as discussed in Kent Bach's chapter on the topic) – have emphasized that the contribution to what sentences signify from a systematic, compositional semantic component appears to be very abstract and remote from ordinary intuitions (if there is any such contribution at all, which some of these "contextualist" writers such as Charles Travis doubt). Recanati's and Bach's chapters will further present these matters to the reader.

Research Methods in the Philosophy of Language

In this summary of themes and topics from the early history of analytic philosophy of language, I have at several points made appeal to *intuitions*. For instance, we saw that Kripke claims that our intuitive understanding of the distinctive truth-conditions of sentences including proper names gives us a direct intuition of their rigidity; and I mentioned that we have similar intuitions about the rigidity of definite descriptions in referential uses. Similarly, in one of his most celebrated arguments against descriptivist theories – discussed in Martí's chapter – Kripke famously elicits our intuitions about a thought-experiment concerning a fictitious situation, in which the person usually addressed by the name "Kurt Gödel", whose passport registered that name,

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etc., in fact did not prove the incompleteness of arithmetic, but stole the proof from someone called "Schmidt". Under the (probably true) assumption that all the descriptive information we associate with the name "Gödel" is *the discoverer of the incompleteness of arithmetic*, if the imagined circumstances were real, by "Gödel" we would be referring to Schmidt. However, intuitively this does not seem so, Kripke contends.

Intuitions are generally supposed to play an important evidential role in contemporary analytic philosophy; particularly intuitions concerning circumstances imagined in thought experiments such as the one just mentioned, which act as "crucial experiments" with respect to contrasting theories about the nature of some concepts in which philosophy is interested (such as the descriptivist and direct theories of reference). Thus, Gettier's (1963) three-page article famously refuted the claim that knowledge is justified true belief by means of one such thought experiment, describing a situation in which (we would intuitively concur) someone has justified true belief without having knowledge. Similarly, intuitions also play a fundamental evidential role in contemporary linguistics: intuitions about the acceptability or otherwise of sentences play such a role in syntax, and the sort of intuition about the truth-conditions of specific sentences we saw Kripke appealing to above, to establish the rigidity of proper names, similarly play a fundamental evidential role in semantics.

What are intuitions? To secure for them a central evidential role in philosophy, Bealer (1998) takes intuitions to be "intellectual seemings" – specific mental states such as perceptual experiences are usually thought to be, playing in philosophy a similar role to the one played by experiences in empirical knowledge: like perceptual experiences, they are "given", they cannot be justified or unjustified; none the less they have justificatory power, making beliefs based on them immediately justified (justified not by other beliefs), even if they can be illusory (keeping their "pull" or attraction while we resist it, as in the Müller-Lyer illusion); they provide basic information about the intension of concepts – the conditions under which they apply in possible circumstances – confirming or disconfirming *a priori* general theories about their nature (the way Kripke's thought experiment disconfirms the descriptivist theory of reference, and Gettier's the traditional theory of knowledge), and thereby establishing conceptual necessities, which is what philosophy is about. Others such as Sosa (2007, ch. 3) argue that there are important differences between experiences and intuitions; Sosa suggests understanding them instead as conscious entertainings of content which attract our assent; under that guise, he also gives them an equal epistemologically salient role in philosophy, understood as a fundamentally *a priori* discipline providing theories about the nature of fundamental concepts such as *knowledge* or *reference*.

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Finally, others such as Williamson (2007, ch. 7) – sceptical of the traditional conception of the philosophical undertaking as conceptual analysis conducted *a priori* and seeing philosophy, in a Quinean light, as continuous with science and ordinary empirical belief – refuse to understand intuitions as anything other than conscious opinions or beliefs that we find appealing for some reason or other. Although Williamson disqualifies the main Quinean arguments for such scepticism – contending that notions such as synonymy, meaning, belief, necessity and possibility, are in a sufficiently good standing, even if we have to understand them in terms of each other – he ends up propounding a similar view. Meaning-determining factors are, according to him, facts about our linguistic practices and dispositions, at most empirically accessible (2007, 121–30); and thought-experiments should be understood as a form of reasoning about counterfactual circumstances, essentially dependent on premises only known *a posteriori*. "Intuitions" (i.e., just conscious judgments we find appealing) do constitute evidence, but the evidence consists of the contents we thus intuitively accept, not the psychological fact that we have those intuitions.

Here Williamson's view is close to Soames's (1984, 174) "Platonistic" view of what linguistics is about, and his corresponding view about the role of intuitions in that discipline: "even intuitions of grammaticality are not *data* for theories in linguistics; whereas facts about grammaticality are"; Soames is assuming here that "data" is "what theories make claims or predictions about." Intuitions of grammaticality, or semantic intuitions, are like mathematical or geometrical intuitions: indications, which we must take to be reliable if we are to have some starting point at all, of some of the facts – the only real *data* – about numbers or space that mathematicians aim then to collect under an encompassing system characterizing the structure of numbers or space. Number theory is about *two plus three being five* and related intuitive facts, not about *our intuition* that this is so; similarly, linguistics, on this view, is about abstract languages, say, languages that have "the cat is on the mat" as a grammatical sentence, and "some cat is on the mat" as logically following from it – not about our intuition that any of this is so: these intuitions merely provide the facts to be captured and systematized by the linguist.

In the case of linguistics, there is, I think, a decisive reason to reject Soames's view, and to take intuitions themselves, not just their contents, as evidence to be accounted for by linguistic theories. The reason is the guiding role that the Principle of Compositionality plays in linguistic theorizing, which we have already mentioned at several points above. The syntactic and semantic structure assigned by those theories to natural languages is taken to explain the facts that lead us to accept the Principle of Compositionality. But these are facts such as our capacity to understand new sentences, manifested by the intuitions expressing understanding of those "new" sentences, and their

grammatical acceptability. (The reader will find useful Higginbotham's chapter on "The Nature of Language" in this regard.) In a nutshell: if the Principle of Compositionality is to have any theoretical bite, it is because only theories that accommodate it are capable of explaining our having specific syntactic and semantic intuitions.

In the case of philosophy, in order to confront Williamson's sceptical challenge, the friend of conceptual analysis and the conception of philosophy as a fundamentally *a priori* discipline providing knowledge of conceptual necessities should try to point out that the having of intuitions themselves, and not just their contents, provides crucial data for philosophical theories to account for. In this case, the idea to be articulated is that intuitions about cases (in particular, the interesting intuitions elicited by well-designed "crucial" thought-experiments, such as Kripke's or Gettier's) are just manifestations of the possession of the relevant concepts, and constitute access to their intensions. I refer the reader to Ichikawa and Jarvis (2009) for interesting recent suggestions along these lines; but it must be said that the difficulties of these attempts highlight the importance of Williamson's challenge.

A more radical challenge – in that, if compelling, it questions both the traditional conception of philosophy and Williamson's *a posteriori* methodological alternative – has been recently posed by some results of the so-called "experimental philosophy". This consists in the design of empirical experiments of the kind psychologists regularly conduct, addressed to examine whether or not ordinary people have the intuitions which are supposed to be elicited by philosophical thought-experiments such as Gettier's or Kripke's. Some of the researchers conducting them argue that, surprisingly, whether or not people share those intuitions appears to be influenced by factors such as culture, race or social class. These results would question the traditional approach to philosophy (as traditionally understood, the method would at most provide information about culturally idiosyncratic concepts) but also Williamson's, because they would suggest that the contents to which we have intuitive access are very doubtfully *facts*. The last section in Genoveva Martí's chapter discusses some of these experiments – those relating to the concept of *reference* and Kripke's thought-experiment – and provides further references.

Assuming we can have a convincing reply to the experimental philosophy challenge, and no matter whether we end up supporting a form of *a priori* methodology or rather think we must make sense of the methodology we employ in philosophy along the lines envisaged by Williamson, it seems plausible that we need to adopt a "wide reflective equilibrium" view of the kind described by Daniels (2011) thus: "working back and forth among our considered judgments (some say our 'intuitions') about particular instances or cases, the principles or rules that we believe govern them, and the theoretical considerations that we believe bear on accepting these considered judgments, principles,

or rules, revising any of these elements wherever necessary in order to achieve an acceptable coherence among them." In particular, we need to make sure that philosophical theories are consistent with the results of empirical science (the way a philosophical account of persistence in time should be consistent with Special Relativity), and we should admit that philosophical theories are defeasible on the basis of empirical evidence; Jeshion (2000) provides good reasons why this should be so even on the most aprioristic conception of the discipline. Thus, in the case of the concept of *reference* we have been discussing, writers have appealed to facts about the understanding by autistic people or little babies of referential expressions, contending for instance that they are incompatible with descriptivist views (cf. García-Ramírez and Shatz (2011) for a recent example of that line of argument, and references therein). Reflective equilibrium, however – as Williamson (2007, 244–6) points out – is not what distinguishes philosophy. A similar methodology is employed in science; but what is characteristic of science is the way it depends on empirical evidence, and the criteria for selecting adequate empirical evidence. Likewise, in the case of philosophy the crucial issue is the role that intuitions play, whether it is distinctive and whether it underwrites an *a priori* knowledge of necessary truths. On that matter, as we have seen, the jury is still out.

Notes

1. I am grateful to Max Kölbel for comments on a previous version that led to improvements. Financial support for my work was provided by the DGI, Spanish Government, research project FFI2010-16049 and Consolider-Ingenio project CSD2009-00056; through the award *ICREA Academia* for excellence in research, 2008, funded by the Generalitat de Catalunya; and by the European Community's Seventh Framework Programme *FP7/2007–2013* under grant agreement no. 238128.
2. Departament de Lògica, Història i Filosofia de la Ciència, Universitat de Barcelona, email: m.garciacarpintero@ub.es
3. There are many indications of the centrality of this issue among the problems that Wittgenstein was concerned with at the time, beginning with the amount of discussion devoted to it in the *Tractatus* itself. The early letters and notebooks reflect how his focus on intentionality evolved from his primary interest in giving an account of logical validity improving on those put forward by Frege and Russell. Another piece of evidence comes from the *Investigations*. The early hundred-odd sections of that work read like a criticism of the Tractarian philosophy. While providing, to serve as a foil, some glimpses of his new views on the issues, Wittgenstein criticises there several aspects of the *Tractatus*, in an order that appears to retrace in reverse the intellectual path leading to them: the disregard for the differences between illocutionary forces (to which we will come back later) and its focusing only on what I will call *sayings*; the notion of a logical name, and the correlative notion of a simple (to which we will also

come back); the assumption of a unique analysis of all contents, and so on and so forth. After all this, in § 65 we are told that "the great question which lies behind all these considerations" is the problem of giving "the general form of propositions", for which the picture theory provided the intended answer. There follows a therapeutic bashing of the assumptions setting this as an issue, and finally we are told, in § 89, that the problem to which the preceding considerations lead is "In what sense is logic something sublime?"

4. For Wittgenstein, as for Kant before him, these properties are manifestly coextensive; Albert Casullo's chapter, "Analyticity, Apriority, Modality", discusses these notions.

5. The central element of the picture theory that Wittgenstein marshals to account for these features is the claim that the picture and its represented reality share a certain "form". Thus, regarding the first explanatory issue, 2.17 says that, in order for a picture to be able to depict reality correctly or incorrectly, it "must have in common" with reality its form; regarding the second, 4.02 says that we can see that a proposition is a picture of reality "from the fact that we understand the sense of a propositional sign without its having been explained to us". (I assume that the demonstrative "this" occurring in 4.02 refers to material in 4.01, the paragraph immediately preceding it in the "alphabetic" order indicated by their numbers.)

6. The way a sample signifies a set of properties by itself instantiating those very properties.

7. Kathrin Glüer's chapter, "Theories of Meaning and Truth-Conditions", develops the notion further.

8. In fact, they are *de jure* so, Kripke contends, unlike descriptions such as "the even number", which merely *de facto* pick out the same entity with respect to every possibility. Kripke never explains what he means with the *de jure – de facto* dichotomy; what it suggests is that proper names are rigid as a matter of the semantic *norms* or *rules* governing them.

9. See Sainsbury (1993/2002) for a nuanced examination of Russell's actual views, in contrast with what it is attributed to him in contemporary discussions.

10. We have been discussing singular terms so far, but our considerations apply to expressions in other categories. If we thought that common nouns such as "water" and "tiger", or predicates such as "electrically charged", "yellow" or "circular", signify objective kinds or properties, whose nature is to be discerned (to the extent that it is) only through scientific investigation, then we would have equivalents of the *aspectual bias* and *potential wreck* problems; according to descriptivism, they would have similar solutions.

11. For Russell's actual views, the reader should consult Sainsbury (1993/2002).

12. The proposal in the *Tractatus*, as explained later by the author in lectures and conversations in the late 1920s and early 1930s, appears to be close to David Lewis's (1979) account of so-called *de se* contents – the contents whose "irreducibly indexical" character is pointed out by Perry (1979) with forceful examples. Lewis's proposal is to take away the subject from the content itself, and thinking of truth-conditions not as functions from worlds to truth-values (i.e., not as discriminating among possible worlds), but rather as functions from subjects, worlds and times to truth-values (i.e., as discriminating among possible subjects, as they are at a particular time in their lives at a given possible world).

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