*In A. Bianchi, ed.,* On Reference*, Oxford, Oxford University Press, 2015, pp. 1-18.*

INTRODUCTION – OPEN PROBLEMS ON REFERENCE

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Most of the times we open our mouth to communicate, we *talk about things*, be they restaurants, movies, or soccer teams. Indeed, it is hard to imagine a more than rudimentary linguistic exchange that does not involve talking about things.

Undoubtedly, talking about things is the result of the interaction of various factors: a number of different cognitive abilities are involved; a language, with its complex syntax, is called upon; the context in which the utterance takes place often makes its own contribution. But it is almost indisputable (see, nevertheless, Christopher Gauker’s chapter in this volume for an expression of skepticism) that a crucial role is played by the fact that (some of) the linguistic expressions we use have *semantic properties* that connect them to extra-linguistic entities. Thanks to these properties, they may be used by us to *refer* to things. Or, as we may also say, they themselves *refer* to things, though in certain cases they do so only relative to a context of use. It is no exaggeration, then, to say that all linguistic communication, from a simple chat at the pub to a scientific lecture or a literary work, rests on these semantic properties. Indeed, no matter how sophisticated and developed a language is in other respects, it would be of no use if it were not anchored to the extra-linguistic world by them.

But how is language anchored to the world? Which are the linguistic expressions that are connected to extra-linguistic entities, and how are they connected to them? How should their semantic properties be characterized? Philosophers have been trying to answer these questions at least since Plato’s *Cratylus*. The late-medieval scholastic tradition, for example, produced interesting work on the subject. However, it was not until the last century, when language occupied center-stage in philosophy, that the problem came to be felt really pressing, especially in the analytic tradition.

In the last decade of the nineteenth century, Gottlob Frege produced an account of reference that set the stage for the contemporary discussion. Basically, according to that account a linguistic expression refers in virtue of its being associated by the speaker who uses it with a condition (Frege’s *Sinn*), in most if not all cases descriptive, which determines the referent of the expression. Although the condition is objective, and as such can be grasped by different people, the glue between it and the expression itself is *mental*, so to speak. All in all, what a linguistic expression refers to depends according to this account on the mental state of the speaker who uses it.

Frege’s account has been immensely influential. Thanks to the pioneering work of Rudolf Carnap and Alonzo Church, and then of Richard Montague, it gave birth to contemporary formal semantics for natural languages. And thanks to the work of Bertrand Russell (who, however, acknowledged the existence of a more intimate connection between certain (uses of) expressions and certain, very peculiar, things), it soon became received wisdom among philosophers, who saw in it the key to the solution of a number of epistemological problems related to the use and understanding of language (among which, of course, is the so-called *Frege’s puzzle* itself).

Around 1970, however, things changed rather radically. A group of philosophers, led by Saul Kripke (but at least Keith Donnellan, Hilary Putnam, and David Kaplan must also be mentioned), produced a battery of powerful arguments against Fregean accounts of the reference of certain types of expressions (proper names, indexicals and demonstratives, terms for substances and natural kinds, and, more questionably, singular definite descriptions), showing that they do not refer to what they refer to in virtue of their being associated by the speaker who uses them with a descriptive condition determining it. They also offered sketches of positive accounts of reference for those types of expressions (but, importantly, not a unified theory), highlighting the crucial role played by worldly historical facts that may be unknown to the speaker.

Even though the last ten or fifteen years have witnessed a reaction against the anti-descriptivist arguments (e.g., by experimental semanticists, who questioned the universality of the intuitions backing some of them), a revival of certain Fregean themes (e.g., in the rise of two-dimensional semantics and in the re-emergence of predicativist views about proper names), and the resilience of non-referentialist approaches to semantics (e.g., use theories of meaning), nowadays probably the majority of philosophers of language locate themselves in the camp generated by the work of Kripke and company in the late 1960s and early 1970s.

However, while inviting us to look at reference from a perspective that is certainly very different from Frege’s, the semantic revolution promoted by Kripke and company left us with a number of open problems (an “unfinished agenda,” as has been aptly said). It may perhaps be useful to group them in three main categories.

First of all, there are what we might call *foundational problems*. As I have said, Kripke and company were very productive in devising arguments against Frege’s account of reference. So, if their arguments are sound, we know what reference is not. Unfortunately, they have been much shyer about developing a positive account. With their claims (not always completely convergent, alas), they certainly have indicated a direction, but left us with a lot of work to do. Are we sure that the direction they have indicated is the right one? If so, can we unify the ideas they have offered us concerning the working of particular types of expressions into a single, general theory of reference, thus finally unraveling the nature of the basic relation between linguistic expressions and the extra-linguistic world on which linguistic communication seems to rest?

Problems in the second category stem from our understanding of *cognition*, and concern the place that our understanding of reference should have in it. Frege’s account was grounded in a coherent, and perhaps natural, view of the relationship between language and thought, and one of the main reasons that drove so many philosophers to adopt it was that it seemed perfectly suited for dealing with a number of pressing epistemological problems. What should we say about the relationship between language and thought from the new perspective fostered by Kripke and company’s work in the late 1960s and early 1970s? Couldn’t it be that not only linguistic communication but also important forms of cognition rest on the basic relation they put their finger on? And how can the epistemological problems concerning the use and understanding of language that were felt to be so pressing by the preceding generation of philosophers be dealt with in the new perspective?

Finally, there are *semantic* problems proper. How should the new ideas concerning the working of particular types of expressions (e.g., proper names) be implemented in an overall semantic theory for natural language? How should specific cases (e.g., empty names) and constructions (e.g., propositional attitude reports) that have often been felt to be problematic for the new approach be dealt with? And what should we say of those types of expressions, simple (e.g., common nouns other than natural kind terms, verbs, adjectives, adverbs, and pronouns) or compound (e.g., indefinite descriptions), that were not the focus of attention of Kripke and company?

The eighteen original chapters collected in this volume deal with at least some of these problems, thus hopefully contributing to our understanding of the nature of reference, its role in cognition, and the place it should be given in semantic theory.

The first part of the volume, “The Nature of Reference,” contains six chapters that address foundational problems in various ways. It begins with an expression of skepticism towards the relation itself of semantic reference. In fact, as the title of his contribution, “The Illusion of Semantic Reference,” also makes clear, Gauker believes that no satisfactory account can be given of it. As a consequence, he has attempted over the last twenty years to develop a semantics that does not appeal to reference, in terms of assertibility in a context. In the chapter included here, he sets out to explicate a recalcitrant intuition we have to the effect that, in general, we know the referents (or, as he also says, the *extensions*) of the expressions, be they predicates or singular terms, that we use. From this intuition, “we are tempted to infer that the relation of reference must exist.” Gauker, however, argues that the intuition rests on the intuition that we know the meanings of such expressions, and offers a “skeptical” account of *knowing the meaning* of an expression that is somehow reminiscent of the skeptical account of *knowing how to add* that Kripke famously ascribed to Ludwig Wittgenstein when discussing his considerations on following a rule. In the same way as in the latter account “[i]n declaring that someone *knows how to add*, we mark a person as capable of playing certain roles in society,” so according to Gauker, when we say that someone (even ourselves) knows the meanings of the expressions he or she uses, we do not describe him or her but rather *grant* him or her a *status*, having recognized that we do not “need to interpret him or her by substituting some other words for those that he or she actually used.” If Gauker’s explication of the original intuition is on the right track, then we are not forced to assume that the expressions we use *refer*. Non-referentialist approaches to semantics are therefore not doomed to failure from the start.

Gauker is not the only philosopher who took on the “hard work,” to use the words by which he ends his chapter, of “constructing alternative accounts of those linguistic and mental phenomena that we might have thought we should explain in terms of semantic reference.” Also well known is Paul Horwich’s theory of meaning as use, which is inspired by Wittgenstein’s famous slogan according to which “the meaning of a word is its use in the language.” In Horwich’s theory, meaning properties are taken to be constituted by use properties, while reference and truth are seen from a deflationary point of view. However, Horwich as well must face some apparently recalcitrant intuitions: the *externalist* intuitions about meaning prompted by Putnam’s and Tyler Burge’s famous thought experiments. In fact, as Diego Marconi remarks in his contribution to this volume, “Reference and Theories of Meaning as Use,” a speaker’s dispositions to use seem to be based on his or her cognitive resources, but those intuitions suggest that some expressions have different, or even disjoint, extensions (e.g., Earth “water” and Twin-Earth “water”) notwithstanding that the difference is cognitively inaccessible to the speaker. Marconi argues that the problem is more serious than Horwich thinks, and in particular that Horwich’s attempt at reconciling his theory with the externalist intuitions fails. If Marconi is right, then “Horwich’s account of meaning in terms of use is incompatible with both the externalist account of semantic deference and with natural externalism *à la* Putnam.” However, Marconi does not regard his arguments as refuting Horwich’s theory, as he does not take the externalist intuitions as “sacrosanct.” His moral is rather that “there is an irremediable tension between accounts of semantic value based on the notion of use and semantic externalism of both standard varieties [social and natural]: so, one must choose.”

The following chapter still deals with intuitions, but this time it is Kripke’s chain of communication picture, together with similar historical accounts of proper name reference, that is claimed to be in trouble. In 2004 Edouard Machery, Ron Mallon, Shaun Nichols, and Stephen Stich published a paper where they presented some experimental data suggesting that while most (but, importantly, not all) Americans have Kripkean intuitions about the reference of proper names, a majority of (but, again, not all) Chinese have descriptivist intuitions. This seems to considerably weaken at least one of the arguments that Kripke, as well as Donnellan, advanced against the description theory of proper names, the so-called *argument from error* (in fact, the intuitions elicited in the experiments concerned the Gödel/Schmidt example Kripke used to formulate it). More generally, this appears to show that the case for Kripke’s picture is not as strong as is usually supposed, at least insofar as it is taken to rest on people’s intuitions regarding reference. For this and other reasons, the paper provoked a widespread and heated debate (also touching on important methodological issues such as that concerning the role of intuitions in assessing semantic claims). Perhaps the criticism most commonly raised against it is that the vignettes used to elicit intuitions from the American and Chinese participants to the experiments asked questions that were ambiguous with regard to Kripke’s distinction between *speaker’s reference* and *semantic reference*. But, if they are taken by the participants as concerning speaker’s reference, obviously the answers given by them cannot be used as data against an account of semantic reference such as Kripke’s chain of communication picture. Machery’s, Justin Sytsma’s, and Max Deutsch’s contribution to this volume, “Speaker’s Reference and Cross-Cultural Semantics,” is meant to rebut this criticism. It presents some new experimental studies concerning the Gödel case, where two different strategies are employed to forestall eliciting intuitions about speaker’s reference rather than semantic reference. The results are very similar to those of the experiments discussed by Machery, Mallon, Nichols, and Stich in the 2004 paper: “while most Americans have the anti-descriptivist intuitions that Kripke professes to have, a majority of Chinese have intuitions about the reference of proper names that are consistent with descriptivism.” This time, however, no one can object that these intuitions are about speaker’s reference. Thus, Machery, Sytsma, and Deutsch feel justified in concluding that their findings “provide strong evidence that genuine intuitions about semantic reference vary both across and within cultures.”

The last three chapters in the first part of the volume address more directly the issue of the nature of reference, with a special focus on the case of proper names. All three take Kripke’s chain of communication picture as their starting point. In her contribution, “Reference without Cognition,” Genoveva Martí argues against a new trend in foundational semantics. According to Martí, one of the two ideas at the heart of the semantic revolution in the late 1960s and early 1970s is that referring does not require what Howard Wettstein has called “a cognitive fix”: “[w]e do not need special cognitive access to things to refer to them.” In fact, “referring with uses of proper names depends on factors that are out of the cognitive sphere of the speaker.” More specifically, as Kripke’s chain of communication picture tells us, “speakers refer because they are part of a chain of communication that connects their use of a name to previous uses all the way back to the introduction of the name and the referent,” and “[i]t is the fact that speakers are part of the chain, that their use is *de facto* connected to previous uses, and not what is in their minds that makes their use of a name designate its referent.” All this notwithstanding, Martí notes, “there has been, as of recent, a reconsideration of accounts of reference that ground reference in cognition.” Indeed, in the last few years some direct referentialists (most notably, Kaplan and Joseph Almog), inspired by Donnellan’s classic account of referential uses of definite descriptions, have defended the idea that “referring with the use of a name is parasitic on having in mind.” According to Martí, this move “is contrary to the lessons that inspire direct reference theory.” In her chapter, she explores “some aspects of naming and name usage” that “highlight that havings in mind do not play the determinant role that neo-cognition advocates afford them.” In fact, “[l]anguage has its rules,” and “[u]sing a name requires being part of a practice, and bestowing a name consists in succeeding in launching a practice,” since, “for a sound to be the name of something, there has to be a pattern of repeated, systematic use.” As for reference, “the job of explaining that [speakers] refer, and what they refer to, is done simply by the fact that they rely on and conform to a practice.” Hence, “[h]aving the referent in mind is neither necessary nor sufficient for a use of a name to refer to it.”

As Martí’s chapter, too, shows, it is difficult to exaggerate the importance of Kripke’s chain of communication picture. At the same time, however, one should not forget that Kripke himself took care to make it explicit that it was only a picture, and he even expressed some skepticism towards the possibility of developing it into a full-blown theory. The fact is that even today, more than forty years after its first appearance, we do not possess a full-blown theory built on the picture. In my own contribution to this volume, “Repetition and Reference,” after discussing the reasons for Kripke’s skepticism, I hint at how I think his picture could be developed and offer an outline of a theory of reference based on it. One of the key notions my ‘theory’ makes use of is that of *repetition*, which I take from Kaplan’s work on the metaphysics of words. However, a major problem, related to Gareth Evans’ well-known “Madagascar” case, still needs to be solved. In order to do so, I end by suggesting that philosophers of language should pay more attention to how referential relations come to be instituted, since that is where the problem really lies.

But is it really true that we do not possess yet a full-blown theory of proper name reference built on Kripke’s chain of communication picture? In the first part of his long chapter in this volume, “Should Proper Names Still Seem So Problematic?,” Michael Devitt claims that it is not so. In fact, he presents a theory based on developments that he had already arrived at in the 1970s, “within a naturalistic and anti-Cartesian framework,” of Kripke’s picture. The theory is a *causal* theory. It accounts for proper name reference in terms of *designating-chains*, which “consist of three different kinds of link: groundings which link the chain to an object, abilities to designate, and communication situations in which abilities are passed on or reinforced (reference borrowings).” Both groundings and borrowings are explained by Devitt in causal terms. In fact, what makes it the case that a particular object gets named is “its unique place in the causal nexus in the grounding situation.” What is more, a speaker who has acquired “an ability to designate a particular object with a particular name as a result of groundings ... can pass on that ability by using the name in conversation,” since “[s]omeone who perceives this use and processes it right ... thereby gains the ability herself.” This acquisition is “a causal process,” and “[t]he borrower’s ability, hence her future uses of the name, are causally grounded in the object via the ability of the lender.” Devitt proceeds by introducing his notion of *multiple grounding*, which “is vital in explaining confused designation and designation change,” like those involved in Evans’ “Madagascar” case. In fact, “[d]ubbings and other first uses of a name do not bear all the burden of linking a name to the world,” since every time “the name is used as a result of a direct perceptual confrontation with its bearer,” it gets re-grounded in it. From all this, the explanation of confused designation and designation change is, according to Devitt, “straightforward”: “Groundings fix designation. From the causal-perceptual account of groundings we get the likelihood of multiple groundings. From multiple groundings we get the possibility of confusion through misidentification. From confusion we get the possibility of designation change through change in the pattern of groundings.” In the second part of his chapter, Devitt focuses instead on the issue of proper name *meaning*. His view “stands in stark contrast to two standard views”: “the Fregean view that a name’s meaning is a descriptive mode of referring” and “the direct reference view that a name’s meaning is simply its bearer.” He claims that “Kripke refuted the Fregean view,” while “direct reference faces seemingly overwhelming problems and is theoretically unmotivated.” Fortunately, the generally accepted “inference from the revolution in the theory of reference to the direct reference theory of meaning” is fallacious. So, we are free to accept Devitt’s “apparently shocking view that a (designational) name’s meaning is its causal mode of referring,” since, “[s]hocking as it may be, it solves the meaning problem for names and seems to have nothing against it but a misguided attachment to traditional ways of thinking.”

The three chapters collected in the second part of the volume, “Reference and Cognition,” deal with various issues related to cognition. In “Thinking about an Individual,” Antonio Capuano contrasts two pictures of thinking about an object, which he calls the *inside-out* and the *outside-in* pictures (not to be confused, writes Capuano, with internalism, or individualism, and externalism, or anti-individualism). The inside-out picture can be traced back to the work of Frege and Russell, but is still widespread in contemporary philosophy of mind, as Capuano argues focusing especially on Burge’s work. According to it, cognition is inside-out in the sense that it proceeds “from the mind to the world through some representation” of which we have “perfect and complete knowledge.” Indeed, “thinking must start with the mind grasping some intermediate entity,” and “[o]nly later on, when what really matters for cognition has already happened, objects enter into the picture, almost as afterthoughts.” What is more, continues Capuano, according to this picture “cognition is grounded in a *non-natural* relation,” since “[i]f the knowledge one acquires is produced by natural processes, it is going to be real but hardly complete and perfect.” According to Capuano, however, some observations by Kripke and Donnellan “put a lot of strain” on the inside-out picture. Inspired by these observations, Capuano outlines a different picture, according to which “[t]hinking is from the outside – the object – *in* – the mind”: “[c]ognition is the result of thinkers receiving, by way of natural processes, incoming signals from objects about which later they come to know truths.” This is, in fact, what Kripke (as well as Donnellan) showed: “[t]he essential point [of Kripke’s chain of communication picture] is that for someone to be able to go back to something – in [Kripke’s] particular case, Feynman – one has first to receive information from that something – again, Feynman.” In conclusion, then, we may say that according to Capuano “thinking is like seeing”: “as when seeing an object enters our visual field and strikes us by sending photons, when thinking an object enters our mind and strikes us by sending information.”

Marga Reimer’s contribution, “Drawing, Seeing, Referring: Reflections on Macbeth’s Dagger,” approaches the problem of empty reference from an original perspective, with a particular focus on demonstrative reference to visual hallucinations. Reimer begins by noting an “ambiguity” between what she calls the *ontic* and *non-ontic* senses of the ordinary notion of *drawing an X*. Indeed, “[t]he ontic sense of ‘drawing an *X*,’ which is akin to the artist’s notion of portraiture, essentially involves a *model*: an actual *X* which the artist intends to portray.” We may then say that “[t]he drawing is *of* that particular *X* and is in that sense *derivative*.” In contrast, “[t]he *non-ontic* sense of ‘drawing an *X*’ … involves no such model: no actual *X* which the artist intends to portray.” Thus, “[t]he drawing is … *of* no particular *X* and is in that sense *creative* – even if ‘modeled on’ actual *X*’s previously encountered.” Interestingly, continues Reimer, the ordinary notion of *seeing an X* is “similarly ambiguous.” The ontic sense of “seeing an X,” which “is operative in characterizations of *veridical* visual experiences,” “involves an actual *X* which is visually experienced,” so that we may say that “[t]he experience is *of* that particular *X* and is in that sense *derivative*.” In contrast, the non-ontic sense of “seeing an *X*,” which “is arguably operative in characterizations of *non-veridical* visual experiences,” e.g., hallucinations, “involves no actual *X* that is seen.” Thus, “[t]he experience is … *of* no particular *X* and is in that sense *creative*.” It is important to note that, when either “drawing” or “seeing” are used in their non-ontic sense, the inference from “*A* draws (sees) an *X*” to “There is an *X* that *A* draws (sees)” is fallacious. Now, Reimer suggests that “referring to an *X*” might behave similarly to “drawing an *X*” and “seeing an *X*.” Its ontic sense “would involve an actual *X* to which the speaker refers, to which she intends to draw the audience’s attention.” Its non-ontic sense, in contrast, “would involve no such *X*, no actual *X* to which the speaker refers, to which she intends to draw the audience’s attention.” The non-ontic sense might be operative, for example, in characterizations of demonstrative reference to hallucinations, as in the famous Macbeth’s dagger case. However, there is a “particularly troubling objection” that needs to be faced. In fact, the analogy between “drawing an *X*” and “referring to an *X*” seems not to hold in the non-ontic cases, for “in the case of drawing, there is clearly *something* that is created or produced, namely an *X*-drawing,” whereas there appears to be no artifact that is created when, e.g., Macbeth refers to a dagger. Reimer’s reply, inspired by Nathan Salmon’s treatment of what he calls *mythical names*, is that, on the contrary, even in the case of non-ontic referring there actually is an artifact, albeit *abstract* rather than physical, that is “created by the inadvertent hypostatization of an ordinary visual experience.” It is to such an abstract artifact, which is neither a physical dagger nor a “dagger of the mind,” that Macbeth can be said to refer, concludes Reimer.

In his chapter in this volume, “The Cognitive Contribution of Names,” John Perry addresses some of the epistemological problems related to the use and understanding of language that have often been thought to lend support to Frege’s account of reference. Indeed, he focuses on Frege’s puzzle itself, though in relation only to proper names. As is well known, what needs to be explained is the cognitive difference between sentences that are alike except for containing distinct but co-referential names (e.g., “San Sebastian is a wonderful city” and “Donostia is a wonderful city”). According to Perry, this amounts to establishing what the *direct cognitive contribution* of names, namely “the property of names that is responsible for the difference in the direct cognitive motivation [of the speaker] for and cognitive impact [on the hearer] of [such] sentences,” is. Perry’s main claim concerning this “is not far from what beginning students in the philosophy of language often suggest as the answer to Frege’s problem”: “[t]he direct cognitive contribution of a spoken name is how it sounds; the direct cognitive impact, is that the speaker is referring (or trying to refer, or pretending to refer) to something with a name that sounds this way; the direct cognitive motivation is to use a name that sounds this way to refer (or try to refer, or pretend to refer) to something.” The same holds, *mutatis mutandis*, for written names. Behind it, there is the idea that “[w]hen a person hears a statement with a certain content, she doesn’t grasp the content directly and immediately, although it may often seem like it.” On the contrary, “[s]he needs to recognize the words, parse the sentence, apply her knowledge of how the language works, and feed in the relevant contextual facts, to arrive at the proposition expressed.” Perry illustrates and defends his claim by discussing a number of examples and by addressing some potential problems (ambiguous names, empty names, indirect discourse) and objections, and compares it with Frege’s solution to his own problem. If Perry is right, in fact, “[t]he cognitive contribution of names neither requires nor motivates something in the semantics that associates names with ideas, or Fregean senses, or anything else except what they stand for.” Thus, Perry’s chapter may be seen as a defense of referentialism “against the charge that it does not provide an account of cognitive contribution of names, adequate to solve Frege’s original problem”: “[t]he fact that a name stands for a thing … is a fact about both the name and the thing, which a competent user of the language will understand,” and “[i]t is this relation between the name and the thing that we rely on, in speaking and understanding, when we pay attention to the cognitions that lead to the use of one name rather than another, or the cognitions that one use of a name rather than another leads to.”

The third, and last, part of this volume contains nine chapters dealing with various semantic problems related to reference. In particular, the first four of them assess the claim that proper names are predicates rather than referring singular terms, a claim that harkens back to ideas by Russell and Willard Van Orman Quine, was explicitly advanced and argued for by Burge in 1973, and has recently found new supporters among both philosophers and linguists. Roughly, the claim implies that a proper name N is semantically equivalent to a predicate such as “bearer of N,” and one of the main motivations for it is that there are apparently predicative uses of proper names, as in “Both an Edouard and an Edward contributed to this volume.” Such uses are difficult to account for under the assumption that proper names are referring singular terms. Thus, only by claiming that in all of their uses proper names are predicates does it seem possible to offer a uniform account of them. Nonetheless, in his chapter, “Names as Predicates?,” Ernesto Napoli voices a number of qualms about the claim. He begins by focusing on the notion itself of a proper name (or, as he prefers to say, a “name of an individual”). He argues, first, that “being a name of an individual is for an expression no more and no other than being used as a name of an individual,” and, second, that being used as a name of an individual consists in “being used as an arbitrary, contextually unconstrained, tool for reference to an individual.” Accepting this understanding of “name of an individual,” however, would amount to rejecting from the start the claim that names are predicates. Thus, Napoli tentatively considers a different notion, according to which “being a name of an individual is for an expression to be arbitrarily imposed on an individual via a stipulation.” Notice that “[i]n virtue of the stipulation the individual acquires the property of being a bearer of the expression imposed on it.” Hence, one could try to rescue the claim that names are predicates by arguing that when used in a sentence “the expression that has been imposed on the individual does not act as a tool for unconstrained reference to the individual it was imposed on, but as a provider of the property of being a bearer of the expression, a property that the individual has acquired because of the stipulation.” However, Napoli argues, first, that this notion of a name of an individual is untenable (mainly because there are expressions that come to be used as names of individuals without there being any stipulation), and, second, that the resulting claim that names are predicates would in any case be problematic, for various reasons. Moreover, he suggests that “there are cases of apparently argumental occurrences that cannot be accounted for either by thinking that names are tools for reference or by thinking that names are tools for description of individuals [i.e., predicates],” and “there are cases of apparently predicative occurrences that cannot be accounted for in either way.” Therefore, predicativism would be no more able than referentialism to offer a uniform account of proper names.

Robin Jeshion’s contribution to this volume, “Names Not Predicates,” begins where Napoli’s ends, so to speak (although it also contains a very clear introduction to the debate between predicativists and referentialists about proper names). Indeed, Jeshion discusses and challenges the uniformity argument that is supposed to favor predicativism over referentialism. The argument is based on a uniformity principle, according to which, “[o]ther things equal, a theory that explains the semantics of singular unmodified occurrences of names in the same way that it explains the semantics of those (and just those) pluralized, quantified, modified and otherwise determiner-fronted occurrences of proper names true of those that have the name, is superior to a theory that does not.” It is important to note that some other pluralized, quantified, modified and otherwise determiner-fronted occurrences of proper names (e.g., “Napoleon” in “George Wallace is a Napoleon”) are left aside because deemed to be clearly non-literal. Jeshion objects to the crucial role that is given by predicativists to uniformity considerations: “[l]eft entirely out of theory assessment are considerations about the semantic theory’s intuitive plausibility; explanatory power and comprehensiveness; simplicity, construed as independent of uniformity; coherence with theories of how and why proper names are given to particulars, how proper names are used within pragmatics, how proper names are psychologically processed, and so on.” However, Jeshion’s challenge to predicativists does not rest on this. Her point is rather, simply, that the predicativist proposals, according to which “[a] proper name is a predicate true of an individual if and only if the individual is given that name in an appropriate way,” or something like that, “do not supply the correct truth conditions for numerous uses of proper names taking the plural, definite and indefinite articles, quantifiers, and other determiners,” notwithstanding the fact that these uses do not seem to be non-literal. Indeed, Jeshion supplies a “large and robust” set of examples that seem to show just that, where names are used to indicate “dynasty membership” (e.g., in “Joe Romanov (my barber) is not a Romanov”), or “bearing a genetic relation to a parent or family” (e.g., in “Many Kennedys have died tragically”), or “identification with a family” (e.g., in “I am a Kaufman, not a Jeshion”), or “a creator’s creation” (e.g., in “Two Stellas are inside the museum”), or again “a representation of an individual” (e.g., in “Two Osama bin Ladens came to the Halloween party”). Jeshion argues, first, that these are “*bona fide* uses of proper names that any semantic theory of proper names must confront and, as predicativists like to say, may not sweep aside as special cases,” and, second, that the predicativist proposals “deliver an incorrect semantics” for them. So, she concludes that “referentialism is not vulnerable to the Uniformity Argument advanced by predicativists.” However, while her chapter’s “aims have been *almost* exclusively critical, largely confined to undermining the Uniformity Argument advanced by predicativists,” Jeshion also offers some hints on how apparently predicative uses of proper names should be treated from a referentialist perspective, by noting that they all seem to have a “common form”: “they signal a certain relation to the name’s referent, where the name itself, in the context, either refers to an individual, a family, or the name itself (perhaps others).”

In her contribution, “‘Literal’ Uses of Proper Names,” Delia Fara, a prominent proponent of predicativism, takes up Jeshion’s challenge. Indeed, after outlining the main rationale for adopting a predicativist proposal such as her own, which appeals in semantics to what she calls the *being-called condition* (“A proper name ‘*N*’ is true of a thing just in case it is called *N*”), Fara sets out to “rebut an argument against the being-called condition which is intended to show that it is false by appealing to examples in which predicative names are allegedly used literally but without satisfying the being-called condition,” which she ascribes to Jeshion. In order to do this, Fara considers “a variety of such examples,” many of which come from Jeshion’s chapter, categorizes them under three headings (*deferred interpretation examples*, *resemblance examples*, and *Romanov examples*), and argues that “no example under any of the headings gives a relevant counterexample to the being-called condition.” As for deferred interpretation examples (e.g., an utterance of “Two Stellas are inside the museum” or “There were two Osama bin Ladens at the Halloween party”), and resemblance examples (e.g., an utterance of “Two little Lenas just arrived”), Fara employs the same strategy. For each of the examples, she finds “an analogous example with a common count noun” instead of a proper name (e.g., an utterance of “There were two green witches at the Halloween party”), and notes that the fact that, for instance, “[t]he phenomenon of deferred interpretation occurs just as easily with common count nouns as it does with proper names” is certainly not taken by anyone to “scotch the application conditions” for common count nouns in their normal uses. In fact, no one would argue against the semantic claim that, say, “green witch” is true of a thing just in case it is a green witch from the fact that, in a given context, an utterance of “There were two green witches at the Halloween party” is appropriate if not true (this last issue depending on the specific account that is given of deferred interpretation), notwithstanding that of course there were no real witches at the party. For parity of reasoning, no one should argue against the semantic claim that, say, “Osama bin Laden” is true of a thing just in case it is called Osama bin Laden from the fact that, in a similar context, an utterance of “There were two Osama bin Ladens at the Halloween party” is appropriate if not true, notwithstanding that there were no people called Osama bin Laden at the party. So, Fara concludes, “the phenomenon of deferred interpretation does not require the predicativist to reject her being-called condition as the normal applicability condition for proper names.” The same, holds, *mutatis mutandis*, for the case of resemblance examples. The case of Romanov examples (e.g., utterances of “Joe Romanov (my barber) is not a Romanov,” or “Waldo Cox (my gardener) is a Romanov,” the latter made in order to reveal something exciting discovered through historical investigations) is different. Contrary to the other alleged counter-examples to the being-called condition, certainly “Romanov examples involve literal uses of proper nouns.” However, Fara claims, “the proper nouns in question are not in fact being used as proper *names*,” hence the examples do not count as counter-examples to the being-called condition, as this is a condition that is supposed to hold only for proper names. The fact is that, according to Fara, “[a] proper noun need not be a proper name,” and “a proper noun that sometimes occurs as a proper name need not always occur as a proper name” (a typical example is family names and brand names). Roughly, proper nouns are “those nouns that require capitalization.” Now, “capitalization conventions … have nothing to do with grammar.” Thus, “[a] capitalized noun need not be a proper name any more than a capitalized adjective need be.” Indeed, being a proper noun is “a trivial, purely orthographical, feature of nouns.” Being a proper name is, in contrast, an important syntactic feature. To come back to the Romanov examples, then, we may say that in them “the count noun ‘Romanov’ is a proper noun that may apply to something even if it is not called Romanov,” but “it is not in those examples a literally used predicative proper name that does not satisfy the being-called condition.” Rather, “it there occurs as a literally used proper count-noun that is not a proper name.” So, Fara concludes that “none of the examples offered [by Jeshion] refutes predicativism.”

In her response, “A Rejoinder to Fara’s ‘“Literal” Uses of Proper Names’,” also included in this volume, Jeshion clarifies the dialectic in her chapter and assesses “Fara’s analysis of the three main classes of examples she considers.” Contrary to what Fara thought, in her chapter she did not “aim to refute predicativism,” and, more specifically, she did not offer her examples “as a piece of an argument that predicativism is wrong.” Rather, she meant to show that “the predicativist’s own *Uniformity Argument* *on behalf* of predicativism, as a superior theory to referentialism, does not hold up.” To this end, she offered her examples “as new examples of apparently predicative uses of proper names that any theory needs to address and that the predicativist is not in a position to cordon off as obviously *different in kind* from the examples” that he or she takes as paradigmatic (e.g., “There are relatively few Alfreds in Princeton”). In other words, the point of Jeshion’s examples was to show that “*the predicativist is not entitled to simply assume without argument that* [*the examples he or she takes as paradigmatic*] *are* the *canonical examples of predicative uses of proper names that illustrate proper names’ normal application conditions*.” Hence, Jeshion’s “challenge” to predicativists is to demonstrate that the examples that are taken as paradigmatic “are syntactically or semantically different in kind” from her own, which do not seem to satisfy anything like Fara’s being-called condition. Consider, for instance, what Fara says about the Romanov examples. Why, Jeshion asks, couldn’t we say exactly the same thing about, e.g., “There are relatively few Alfreds in Princeton,” namely that the proper noun “Alfred” does not occur in it as a proper name? But if it were so, then obviously the latter example could not be taken as illustrating “the normal or default use of proper names,” since it would not even contain a proper name. Therefore, the predicativist’s uniformity principle based on it and similar examples would simply be misbegotten.

As Marco Santambrogio remarks in his contribution, “Empty Names, Propositions, and Attitude Ascriptions,” “[e]mpty names pose thorny problems to all semantic theories.” The fact is that “[t]here are a host of sentences, in which empty names occur, that we feel strongly inclined to take as being definitely either true or false.” This is especially challenging for “those theorists who endorse the doctrine that proper names directly refer,” as that doctrine appears to imply that these sentences do not express any proposition that can account for their intuitive truth value. Santambrogio, however, argues that this is not so. The key idea of his chapter, in fact, is that there is no need to force direct reference into the Procrustean bed of the singular propositions apparatus. Indeed, his theory of empty names “has recourse to a notion of structured propositions that are quite unlike singular propositions, but it still assumes that all proper names, empty or otherwise, have no descriptive content that is semantically relevant.” Santambrogio’s starting point is Kripke’s characterization of Millianism, according to which “proper names of the same thing are everywhere interchangeable not only *salva veritate* but even *salva significatione*,” so that “the proposition expressed by a sentence should remain the same no matter what name of the object it uses.” This suggests, according to Santambrogio, that we can “define the expressive value [i.e., the propositional contribution] of a name by abstraction, as being its equivalence class, modulo sameness of reference, either on the domain of all names or on that of all names in a particular language.” The result is new-style propositions, which are “language-*bound*” rather than language-*independent* like the traditional ones. Santambrogio defends his proposal both directly, by addressing a number of potential objections, and indirectly, by arguing that these new-style propositions serve the “two main purposes” propositions are supposed to serve, namely “to be the bearers of truth values and to figure in the semantics of sentences ascribing belief and other propositional attitudes.” In fact, he first outlines the truth conditions of his new-style propositions, which “are relative to some previously understood language and are such that even propositions expressed by sentences containing empty names … are not valueless,” and then offers a semantics for belief ascriptions, which “flows naturally from the truth conditions given … for ordinary atomic sentences, without any need to supplement them with special clauses.” Finally, Santambrogio compares his theory with “two of the most influential theories of empty names that are consistent with the doctrine of direct reference and Millianism,” the Gappy Propositions View, originated by Kaplan, and the Metalinguistic View, inspired by Donnellan, and argues that it fares better than either of them.

Besides empty names, another well-known problem for Millianism (which in his contribution, “Millianism, Relationism, and Attitude Ascriptions,” Ángel Pinillos defines as “the thesis that the meaning of a proper name is exhausted by its referent”) is constituted by “the presumed failure of substitutivity, *salva veritate*, of co-referring names in attitude contexts” (a version of Frege’s puzzle different from the one we encountered when presenting Perry’s chapter). In the last decade, Kit Fine has developed a new solution, “consistent with Millianism,” to this problem: *semantic relationism*. The basic idea is that “the meaning facts concerning a discourse may involve semantic relations between representations”: certain representations (e.g., proper name tokens) may be *coordinated*. Hence, even though “the semantic content of a proper name, taken on its own, is exhausted by its referent,” sentence uses involving coordination (e.g., standard uses of “Hesperus is Hesperus”) express, according to relationism, propositions that are different from those expressed by sentences not involving coordination (e.g., certain uses of “Hesperus is Phosphorus”). This would explain the difference in truth value between, say, “Hammurabi believed that Hesperus is Hesperus” and “Hammurabi believed that Hesperus is Phosphorus,” since the two reports would ascribe to Hammurabi belief in two different propositions. It might seem, however, that the proposal is not general enough to solve all the problems: what about, e.g., “Hammurabi believed that Hesperus is inhabited” and “Hammurabi believed that Phosphorus is inhabited,” neither of which appears to involve coordination? After introducing his own version of relationism, which differs from Fine’s in taking coordination to be a primitive non-transitive relation (*p-linking*), Pinillos criticizes Fine’s way out of this difficulty, which has recourse to “a notion of inter-discourse coordination which links uses of words and mental states” and to new theoretical objects (*token propositions*), and offers his own. According to Pinillos, in fact, intra-discourse coordination may be enough to deal with Frege’s puzzle concerning substitutivity in its general form, if only we realize that a discourse also includes what is presupposed, and in particular that *de dicto* uses of sentences like those above concerning Hammurabi “are always accompanied, often implicitly, by other mental state ascriptions.” Pinillos’s working hypothesis is the following: “A use of ‘A V’s that P’, where ‘P’ contains a *de dicto* use of a name N which refers to X and ‘V’ is an attitude verb, either presupposes that *A thinks of X as D* or presupposes that *A thinks of X in way C*,” where ‘D’ is a “stand-in for a definite description” and ‘C’ a “stand-in for a conception,” no matter what a conception is. If this hypothesis is true, Pinillos argues, the relationist has all the resources necessary for handling cases such as the above and does not need to appeal to problematic inter-discourse relations and token propositions.

In his contribution to this volume, “The Dilemma of Indefinites,” Samuel Cumming challenges an assumption that, from Frege on, has characterized the reflection on meaning and related matters, according to which “[t]he truth-value of an utterance is jointly determined by its semantic content and its proper circumstance of evaluation.” Abandoning this assumption, Cumming argues, is the only way of resolving a “dilemma about the behaviour of indefinites.” In fact, “[o]n the one hand, there is evidence best explained by treating indefinites as a kind of referring expression, on a par with proper names and demonstratives,” while “[o]n the other, the truth conditions of sentences containing indefinites are not object-dependent; corresponding instead to weaker, existentially quantified claims.” In other words, and schematically, there is empirical support for claiming both that (a) “‘An *F* is *G*’ has an *object-containing* semantic content” and that (b) “‘An *F* is *G*’ does not have an *object-dependent* truth condition.” If (a) and (b) are both true, however, we cannot but conclude that “semantic content doesn’t determine the truth condition.” In this case only, in fact, “it is consistent for an utterance to have both a singular content and an existential truth condition.” In his chapter, Cumming defends both (a) and (b). He claims that (b) “is supported by our truth-conditional intuitions,” according to which “‘An *F* is *G*’ is true just in case the things that are *F* and the things that are *G* overlap,” and is in fact accepted by most semanticists. Cumming spends more time in arguing in favor of (a). In particular, he shows that “indefinites carry a requirement of *epistemic specificity*” and claims that this requirement, which he characterizes by using the now fashionable theoretical apparatus of *mental files*, “is a hallmark of referring expressions.” The resulting picture is the following: an utterance of, e.g., “A woman came to my office today” transmits a proposition about a particular woman the speaker has in mind, “[y]et the utterance can be true without that proposition holding at the relevant circumstance of evaluation,” since it is sufficient for it to be true that a woman, *no matter which*, visited the speaker’s office on the day of the utterance. In the final section of his chapter, Cumming tries to make this sound less counter-intuitive by sketching “a novel view of the relation between semantic content and truth.” In particular, what needs to be realized is that “it’s possible to secure reference through *private commitment*”: “when passing on new reference, a speaker must privately commit to a referent, but is not in a position to publicly ratify that commitment.” In contrast, “truth conditions are a sort of public commitment”: “roughly speaking, an utterance is true if things are the way the speaker’s utterance publicly commits to them being, and false if they are not.” But, “[i]f passing on new reference is a semantic function of some expression type [e.g., indefinites], then utterances containing expressions of that type will have referential, or object-containing, semantic contents, yet will eschew public commitment to the referent, and so will fail to have object-dependent truth conditions.” In fact, Cumming concludes, “it is only with expressions that refer by means of public commitment [e.g., definites] – that is to say, devices of coordination – that semantic content and truth condition will coincide.”

In their rich chapter (“A Unified Treatment of (Pro-)Nominals in Ordinary English”), Almog, Paul Nichols, and Jessica Pepp address foundational issues in semantics by focusing on the case of pronouns. They argue against what they call “the formalist program” in the study of natural language semantics, which aims at a “reduction of English nominals and their generated pronouns to the variables and sentential operators of (generalized) quantificational languages and their model theories.” Indeed, “[f]ree variables and generalizing (first-order) quantification over the open sentence were key in Frege and Russell, and in Quine and Chomsky, and are still key all the way to Montague.” But, Almog, Nichols, and Pepp claim, “[n]ouns, verbs, and adjectives are not open sentences”: “[o]pen sentences are devices of formal languages that involve *variables* at the syntactic/combinatorial level, and the idea of *satisfaction* at the correlated model-theoretic level,” and “[w]hen we look at the elemental parts of English – nouns, verbs, adjectives – no such technologies are involved.” For Almog, Nichols, and Pepp, in particular, “there is no invisible level of logical form, with a split trinity of ‘deictic’ *vs.* ‘anaphoric’ *vs.* ‘bound’ (logically separate) words ‘he’; there is just the one and only visible English ‘he’ and it is always referential.” In fact, they hold that “pronouns are semantically uniform with the English nominals of which they are pro-forms,” and offer “two models of the semantics of English nominals, including the analysis of pronouns that follows from each.” Both models treat pronouns as “pro-forms of directly referential, nominal expressions.” According to the first model, “*complete* noun phrases (‘the man in the window’) refer” (hence, “it would be more accurate to call pronouns *pro-noun phrases*”). According to the second model, on the contrary, “it is *nouns* that refer (both common and proper), prior to being modified by adjectives or determiners,” and pronouns perform the same semantic function as they do. Almog, Nichols, and Pepp do not adjudicate between the two models. From their point of view, it is more important to highlight what the two models have in common, namely that they treat *all* pronouns as referential, no matter “whether they refer to demonstrated or salient entities, (co-)refer to entities referred to by whole noun phrases appearing in the sentence or discourse, or (co-)refer to entities referred to by proper or common nouns appearing in the sentence or discourse.” According to Almog, Nichols, and Pepp, in fact, “[t]here is … no syntactic distinction that marks a pronoun as anaphoric, and the process of determining whether or not a pronoun is anaphoric is precisely the process of identifying the referent.” Therefore, “[t]he ambiguity exhibited by pronouns is referential ambiguity, not scopal ambiguity.” Since “pronouns refer in virtue of causal-historical connections,” this referential ambiguity is only to be expected: the causal-historical connections in question are what Almog, Nichols, and Pepp call “perceptual chains,” and “[a]ny link in a perceptual chain may be a joining of two perceptual chains, and any two perceptual chains that are joined may or may not reach back to the same object.” Thus, “what has traditionally been thought to be an ambiguity special to uses of pronouns (i.e., deictic *vs.* anaphoric *vs.* bound) is just an instance of the ambiguity to which all uses of words are subject in virtue of being links in perceptual chains.” Indeed, “[t]his unified type of ambiguity explains the various readings that pronoun-involving sentences can have, without appeal to underlying logical forms displaying differences in variables or scopes.” What is more, Almog, Nichols, and Pepp claim that “[this] unification of nouns and pronouns and [this] conception of semantics as a science of historical facts pave the way for another, more foundational, unification in the cognitive processing of information,” that is “the integration of linguistic reference and perception.” In fact, the role of both nouns and pronouns, and more in general of all words, is to “enhance perception beyond the local neighborhood accessible to our ‘naked’ sense organs.” To close with a thought-provoking image, then, we may say that “[l]inguistic noun-scopes are no less perception-enhancers than are the light-based scopes used by Galileo.”

In the last chapter included in this volume, “Individuals Explained Away,” Edward Keenan defends an approach to the semantics of natural language that is certainly in stark contrast with that of Almog, Nichols, and Pepp. His first aim is to offer a semantic analysis of certain evaluative adjectives (e.g., “skillful”) that are used as modifiers in agentive common noun phrases (e.g., “skillful surgeons”). These adjectives exhibit properties that make them difficult to account for in standard model-theoretic semantics: while they are restrictive (“John is a skillful surgeon” entails “John is a surgeon”), they are *non-*extensional: “[f]or p,q agentive cnp [common noun phrase] interpretations and F an evaluative adjective interpretation it may happen that ext(p) = ext(q) but ext(F(p)) ≠ ext(F(q)).” Thus, for instance, “[i]f the heart surgeons and the portrait painters happen to be the same individuals in some context, the skillful heart surgeons and the skillful portrait painters may still be different individuals.” According to Keenan, since “no cross model comparisons” are suggested by judgments in this area, “the appeal of a possible worlds approach to non-extensionality is absent.” Indeed, in providing his semantic analysis, Keenan “generalizes standard extensional model theory without adding novel entities such as possible worlds or propositions.” He proceeds in two steps. First, he recasts standard extensional semantics (“whose ontological primitives are two: a booleanly structured set of truth values {T,F} in which sentences are interpreted, and an unstructured non-empty universe E in which proper names and individual constants are interpreted”) in “purely boolean terms.” This involves “no change in entailment relations or truth conditions of sentences,” but “the unstructured universe E is eliminated in favor of a booleanly structured set P of properties which provides interpretations for common nouns.” In a nutshell, “interpretations for sentences and common nouns … are both [complete and atomic] boolean lattices.” Moreover, “[i]nterpretation sets for other categories of expression also have a boolean structure, as the expressions combine quite freely with the boolean connectives *and*, *or*, ....” Therefore, “proper name interpretations are now derivative, defined in terms of properties and truth values” (a move that Keenan takes to be supported also by the observation that “proper names are often (always?) historically derived from property-denoting expressions”): *individuals* are nothing more than “homomorphisms from the property lattice to the truth value lattice.” In the second step, Keenan generalizes this boolean construal of standard extensional semantics to non-extensional semantics, by relaxing the “atomicity requirement” on the boolean lattice whose elements provide denotations for common nouns, and shows how in this semantics it is possible to account for the properties of evaluative adjectives mentioned earlier. Apart from this, it should be noted, the resulting intensional semantics is interesting from a foundational point of view. In particular, as Keenan remarks, it has “some consequences for Direct Reference Theory,” as “it eliminates from our naïve ontology a universe of objects we think of singular terms as denoting and unbound pronouns and individual variables in logic as ranging over.” Moreover, since it gives priority to common noun interpretation rather than proper name interpretation, it can perhaps be regarded as an ideal framework for developing predicativism about proper names, the view discussed in Napoli’s, Jeshion’s, and Fara’s contributions to this volume.

To conclude, some acknowledgments. I am grateful to the University of Parma, which hosted conferences and lectures where earlier versions of many of the chapters collected in this volume were presented and discussed, to three anonymous referees for Oxford University Press for their suggestions, and to all the contributors for their willingness to contribute and for their patience. Almog, Capuano, Devitt, Napoli, and Nichols also provided helpful comments on this Introduction. Finally, I owe special thanks to Paolo Leonardi, who suggested and encouraged the project, and to Peter Momtchiloff, who made realizing it possible.