To appear in A. Goldman / B. McLaughlin (eds.): *Metaphysics and Cognitive Science*, Oxford UP.

**Natural Language and its Metaphysics**

Friederike Moltmann

July 2017

draft – comments welcome!

**Introduction**

It is uncontroversial that our conception of the world is at least in part reflected in natural language. Natural language displays a great range of types of referential terms that appear to stand for objects of various sorts and it also involves many constructions and expressions that appear to convey metaphysical notions, for example identity, causation, parthood, truth, and existence. But it is also largely agreed that natural language reflect ontological categories, structures, and notions that not everyone may be willing to accept, certainly not every philosopher, but often not even an ordinary person when thinking about what there is and the general nature of things.

Most notably, natural language appears to involve a wealth of referential terms that display a rich ontology of abstract, ‘derivative’ or ‘minor’ entities that philosophers generally tend to reject and even ordinary person when thinking about what there really is. This includes terms for qualities or properties (*wisdom, the property of being wise*), tropes (*Socrates’ wisdom, John’s tallness*), complex facts (*the fact that John won the race or Bill did*), variable objects, as I call them (Moltmann 2013) (*the increasing number of students, the problem John needs to solve*), truth values (*the truth value true*), and merely intentional (nonexisting) things (*the building mentioned in the guide*). Whether abstract objects such as qualities or properties really exist is disputed as is existence of tropes and facts, and even more so, of course, the existence of variable objects, truthvalues, and merely intentional objects.

There are different reactions philosophers take in view of such discrepancies between the ontology implicit in language and the reflective ontology that a philosopher or ‘ordinary’ person is willing to accept explicitly. For some philosophers it means a complete rejection of language as a guide to ontology, the ontology of what there really is. But many philosophers tend to take language seriously for some purposes, but not others, an example being Frege. Frege was guided by language for his views of numbers as objects, but not for his view of truth values having that status.

In fact, throughout history philosophers have made appeal to language for the purpose of some philosophical arguments, without doing so in a systematic fashion, and certainly not with any explicit methodology. This also holds for socalled ordinary language philosophy. Philosophers that made appeal to natural language generally did so in a nonsystematic way, appealing to one or two sentences without ensuring that a real linguistic generalization was at hand. This happened, for example, in one of the main arguments for propositions, that is, in an argument for propositions being semantic values of *that-*clauses and arguments of attitudinal relations like the belief-relation. The argument is that a *that*-clause can be replaced without change in meaning by an explicit proposition-referring term, in the inference from *John believes that Mary is happy* to *John believes the proposition that Mary is happy*. However, this substitution is impossible for most attitude verbs without changing the meaning of the sentence, for example with *think, judge, claim, desire, want, hope, fear, remember* (*John thinks / hopes the proposition that S is impossible, John hopes / fears the proposition that S means something different*). In fact, a quick look at the entire range of attitude verbs shows that *believe* is exceptional; only a few other verbs (such as *assert* and *prove*) allow for the substitution.

The development of theoretical linguistics in the twentieth century, both natural language semantics and syntax, forces a rethinking of such an appeal to language. It is no longer convincing or appropriate to make arbitrary appeal to some linguistic examples or others at a time when establishing linguistic generalizations, even philosophically relevant ones, has become the domain of a highly developed theoretical discipline. In addition, it is no longer only a matter of a philosopher’s choice of being more or less interested in the ontology reflected in language. Rather the ontology implicit in language emerges as a domain of study in itself, as the subject matter of *natural language metaphysics*, as a branch both of linguistics and of metaphysics.

This raises a range of questions. One of them concerns the characterization of the ontology of natural language: how should the ontology reflected in natural language be characterized given that it may significantly differ from the reflective ontology of an ordinary speaker (or philosopher)? A second question concerns the sorts of linguistic data that could bear on it: what sorts of sentences could be taken as evidence for the ontology implicit in language? A third question concerns the philosophical importance of the ontology reflected in natural language. If natural language presents a metaphysical notion so different from the reflective or philosophically accepted notion, what should one make of it and why should one care?

One might take a strictly descriptivist approach regarding the last question and consider the ontology of natural language the only one worth figuring out. This contrasts with the nowadays more common approach that dismisses natural language as a guide to metaphysics and considers only foundational metaphysics, the metaphysics of what there really is, worthy a philosophers’ attention. An alternative view recently advocated by Fine (to appear a) is to consider descriptive metaphysics and what Fine calls ‘naïve metaphysics’, ‘the metaphysics of appearances’ to be a branch of metaphysics that indispensable to study before any questions of foundational metaphysics can be pursued, that is, questions of the metaphysics of what there really is. Again, natural language metaphysics would be part of naïve metaphysics and as such have an important role to play even in the interest of foundational metaphysics.

While it has generally been admitted that the ontology that natural language reflects may differ from the ontology a philosopher, or even a nonphilosopher upon reflection, may want to accept, little attempt has been made to characterize that ontology and to clarify the methodology of natural language metaphysics, which is both a practice philosophers have pursued throughout the history of philosophy and an emerging discipline that is part of both theoretical linguistics and metaphysics. This paper aims to contribute to the issues raised by natural language metaphysics by clarifying its subject matter in relation to other branches of metaphysics, by laying out some core cases that show a discrepancy between the reflective or philosophical ontology and the ontology implicit in language, and by making the criteria explicit that distinguish linguistic data that may reflect the ontology of natural language from those that may not, and by giving a characterization of the ontology of language. In addition, the paper argues for the importance of distinguishing the core and the periphery of language for purpose of pursuing natural language metaphysics and for the creativeness and construction-drivenness of part of the ontology of natural language.

**1. The metaphysics of language as the subject matter of natural language metaphysics**

Throughout the history of philosophy, there has been a philosophical practice of making crucial appeal to linguistic examples or generalizations in support of a particular ontological category or structure or a metaphysical notion or view. In this sense, natural language metaphysics has been a practiced to a greater or lesser extent by many thinkers throughout the history of philosophy. Aristotle and medieval metaphysicians such as Aquinus, Ockham among others made crucial use of natural language to support an ontological view. More recently, of course, philosophers such as Frege, Strawson, Austin, and Ryle did as well.

The ontology of natural language, that is, the ontological categories, structures and notions that are implicit in the use of language, is also a subject matter of study in itself, the subject matter of natural language ontology. Along with the development of theoretical linguistics, it is becoming clear that natural language metaphysics needs to be recognized as a discipline in itself, as part of both natural language semantics and metaphysics.

Natural language metaphysics is a branch of descriptive metaphysics in Strawson’s (1959) sense, metaphysics whose aim is to uncover our shared conceptual scheme, or better, since metaphysics is not about concepts but objects, the ontological categories, structures and metaphysical notions represented in our shared conception. Natural language metaphysics would fall under descriptive metaphysics in a particularly strict sense: descriptive metaphysics whose subject matter is the metaphysics implicit in natural language and that is strictly be based on linguistically reflected intuitions.

For Strawson, ‘descriptive metaphysics‘ contrasts with what he calls ‘revisionary metaphysics’. The aim of revisionary metaphysics, for Strawson, is to conceive of a better ontology than the one we ordinarily conceive of. Strawson does not specify further how ‘better’ is supposed to be understood, whether for the purpose of the progress of science or otherwise. Natural language ontology is certainly part of descriptive metaphysics in Strawson’s sense , but the latter may also pursue metaphysics based on common sense intuitions that are not reflected in language and may even contradict intuitions reflected in language (examples of which we will see later).

Descriptive metaphysics is metaphysics that has a subject matter displayed by particular data, judgments that are part of a common sense notion or that are reflected in natural language. A notion somewhat similar to descriptive metaphysics has recently been proposed by Fine (2001, to appear a), namely naïve metaphysics or the metaphysics of appearances. Naïve metaphysics for Fine concerns itself with how things appear to be, without trying to address the question of what there really is. Naïve metaphysics deals with common sense judgments broadly speaking and has as its subject matter the things and their nature that appear to be reflected in them. The subject matter of naïve metaphysics is not what there really is, but what appears to be. It is only what Fine calls ‘foundational metaphysics’ that deals with what there really is. Foundational metaphysics, as Fine emphasizes, presupposes naïve metaphysics. Foundational metaphysics has the task of explaining, if possible, the notions of naïve metaphysics in more fundamental terms and thus presupposes a clarification and an account of those notions. Naïve metaphysics as the metaphysics of appearances, Fine argues, should not be guided by considerations of foundational metaphysics, but rather foundational metaphysics relies on naïve metaphysics in order to do its foundational work.

I disagree with Fine in that I doubt that a strict separation between foundationalist considerations and ‘naïve’ considerations can be pursued. Objects are semantic values of singular terms and singular terms when combined with a predicate are meant to give truth or falsehood. To figure out what sorts of objects a singular term stands for thus requires considerations as to what grounds the truth or falsehood of sentences in which it occurs, and thus conceiving of the object in relation to what there really is.

In any case, natural language metaphysics would be part of naïve metaphysics in Fine’s sense. The choice of the predicate ‘naïve’ in this context is misleading, though. Natural language ontology does not concern itself with what the ordinary person naively takes there to be (if one can even speak of a generic ordinary person). Rather, it deals with the ontological categories, notions, and structures that only a deep and systematic analysis of natural languages may uncover.[[1]](#footnote-1) It is the ontology implicit in language, not the ontology displayed by ‘naïve’ ontological reflections of non-philosophers. For that reason, the term ‘descriptive metaphysic’s is a less misleading one and is also to be preferred since it is a more established term.

Should natural language ontology be strictly based on intuitions reflected in natural language? This need not be the case. The ontology implicit in language may be manifested in both natural language data and intuitions that are independent of natural language. In fact, the way natural language ontology is practiced generally involves some considerations of ontological notions that have been established language-independently.

There are also areas where natural language may play no role and descriptive metaphysics would also cover metaphysical analyses that are based on common sense intuitions that are not as such reflected in language. Fine’s (to appear c) recent paper on form falls explicitly within naïve metaphysics, but does not take into consideration any linguistic data.

Linguistically reflected intuitions need not coincide with common sense judgments about ontological issues. There may be discrepancies between a metaphysical notion reflected in language and the one a philosopher, or a nonphilosopher person upon reflection, may be willing to accept. An example is existence. Existence as expressed by the predicate *exist*, at least in contemporary philosophy, is commonly held to be a notion that is univocal and trivially applies to everything there is, or at least every actual thing. However, in natural language *exist* is subject to strict conditions on the type of entity to which it can apply. While it applies to material and abstract objects, it cannot apply to events, as seen below (Hacker 1982, Cresswell 1986, Fine 2006, Moltmann 2013d):

(1) a. The house still exists.

b. The largest prime number does not exist.

(2) a. ??? The rain still exists.

b. ??? John’s death existed yesterday.

Not only philosophers, but even an ‘ordinary person’ may have a reflective notion of existence that is not the one conveyed by the verb *exist.*

Also the predicate *true* displays such a discrepancy. Truth should be applicable to all truth-directed mental states such as beliefs or (products of) acts, such as judgments, assumptions, etc. But *true* is just hardly applicable, for example, to impressions and suggestions:

(3) a. John’s belief is true.

b. John’s claim is true.

(4) a. ??? John’s impression that S is true.

b. ??? John’s suggestion that S is true.

*Correct* instead appears to convey the philosophical notion of truth being applicable with that notion to impressions, suggestions, as well as beliefs and claims:

(5) a. John’s impression that S is correct.

b. John’s suggestion that S is correct.

Later we will see a range of objects reflected in terms that belong to the core of language that an ordinary speaker upon reflection is not likely to accept. These are entities, though, that speakers implicitly accept -- at least when using the language. Characterizing the ontology of natural language thus requires a distinction between implicit acceptance of an object or a category of objects and explicit acceptance -- or in fact degrees of explicit acceptance. Implicit acceptance defines the ontology implicit in language, explicit acceptance the reflective ontology of speakers.

The ontology of natural language thus needs to be distinguished from both the reflective ontology of speakers and the ontology of what there really is. It is not quite correct to speak of *the* reflective ontology, actually, since there may be various reflective ontologies of speakers, at least in certain areas. The ‘data’ for descriptive metaphysics to take into account when directed toward a reflective ontology are much less clear and stable than the data relevant for the metaphysics of natural language, as we will see in the case of the ontological categories of events and tropes. Natural language metaphysics, though, raises additional issues, such as the crosslinguistic generality of ontological notions or generalizations (given that the focus is generally on a single language).

There may be further distinctions of implicit acceptance that need to be made in the context of natural language metaphysics. Some parts of the ontology implicit in natural language may be directly driven by the syntax of the language and thus implicit acceptance will be tied to the use of language itself, whereas other parts may be part of a not so language-driven implicit cognitive ontology (Section 5). In addition, there are different ways for entities to be involved in the semantics of natural language (as semantic values of referential terms, implicit arguments, and parameters of evaluation) and they may reflect different degrees of acceptance (or perhaps different degrees of being or individuation) (Section 6). Furthermore, a distinction between the core of language and its periphery is required. While both the core and the periphery of language may linguistic data that reflect ontological notions, only the core matters for the ontology that is truly implicit in language (Section 4).

To summarize, various levels of judgments need to be distinguished for pursuing metaphysics: linguistically manifested intuitions (of possibly different semantic levels), judgements that reflect a shared conceptual scheme, and, of course, views philosophers may develop.

**2. How is ontology reflected in natural language?**

There have hardy been any explicit efforts to clarify the methodology of natural language metaphysics, its exact subject matter, and its overall aims. But ass a matter of fact, the philosophical practice of natural language metaphysics, throughout the history of philosophy, follows, rather strictly, certain implicit assumptions as to what data are relevant for making an ontological point and what data aren’t. Clearly, to make those assumptions explicit is very important for understanding and characterizing the metaphysics of natural language. Not just philosophers pursuing natural language metaphysics for the purpose of particular philosophical arguments make use of certain types of linguistic data but not others. The very same holds for linguists and philosophers in pursuit of the study of the metaphysics of natural language by itself. That is, the actual practice of natural language metaphysics follows an implicit methodology.

Clearly, natural language metaphysics should not take into account statements that only a particular philosopher would accept – statements of a particular philosophers’ philosophy, say. But also natural language metaphysics should not be taken into account statements of a certain sort that a nonphilosopher may endorse, such as ‘Everything there is exists’. Such statements may articulate what one may call the *reflective ontology* of an ordinary person, but they are not indicative of the ontology implicit in natural language. There certainly is no strict distinction, though, between the reflective ontology of a speaker and the implicit ontology of the language the speaker uses. Again, this illustrated by the examples of existence and truth.

What sorts of criteria distinguish statements relevant for the metaphysics of natural language from irrelevant ones? One distinction that certainly plays a role in distinguishing relevant and irrelevant data for natural language metaphysics is the distinction between assertions and presuppositions. Sentences that themselves make metaphysical assertions can hardly be taken to be revealing for the metaphysics implicit in natural language. Philosophers never make use of such sentences when appealing to natural language for the purpose of metaphysical arguments. Thus, no practitioner of natural language metaphysics would appeal to sentences like (6) to argue for events being part of the ontology of natural language:

(6) There are events.

Davidson (1967), the most influential advocate of events as part of the ontology of natural language, did not appeal to statements such as (6), and in fact not even statements such as (7):

(7) The event of John’s arrival occurred yesterday.

Also, philosophers who would not want to endorse events as an ontological category would generally be unimpressed by statements like (6) or (7) (just as atheists would not be impressed by sentences such as *There is god*).

Similarly, platonists that seek support from natural language for properties being abstract objects would never appeal to statements like (8):

(8) There are abstract objects that are properties.

And they are likely not to appeal either to statements like (9) with an explicit property-referring term:

(9) Socrates has the property of wisdom

Similarly, nominalists or trope nominalists generally would be unimpressed by the availability of statements like (8) or (9).

Let us contrast these examples with the sorts of statements that have actually been used to argue for natural language supporting an ontological distinction. These are ontological generalizations that are presupposed by sentences that *ordinary speakers*, as I will call them, use, that is, speakers when not engaging in philosophical debate or just reflection about what there is. Thus, contrasts such as those between (10a, 11a) and (10b, 11b) have been used to argue for an ontological distinction between facts and events (Vendler 1967, Asher 1993):

(10) a. The rain lasted several days.

b. ??? That it rained lasted several days.

(11) a. John watched the rain.

b. ??? John watched (the fact) that it rained.

A predicate of temporal duration or perception can be true or false of events, but not of facts (as the possible semantic values of *that*-clauses). (10a) and (11a) presupposes the existence of events as semantic values of non-technical referential terms.

Events obviously play the role of semantic values of nouns such as *laughter, walk*, and *war*. Davidson (1967), though, when arguing for events playing a central role in the ontology of natural language, made no appeal to sentences like (10a) and (11a). Rather he argued that verbs take events as implicit arguments and adverbial modifiers are predicates of those events. That was to account for valid inference such as from (12a) to (12b):

(12) a. John walked slowly.

b. John walked.

Thus, for Davidson, the verb *walk* describes a two-place relation between events of walking and agents and *slowly* will act as a predicate of an event argument the sentence existentially quantifiers over, as in the logical form of (12a) in (13):

(13) ∃e(walk(e, John & slowly(e))

This gives an immediate account of event nominalizations as in (14) (though that was not Davidson’s primary motivation for positing events):

(14) John’s walk was slow.

(10) - (12) involve lexical presuppositions of predicates applying to events. As such the sentences presuppose rather than assert the existence of events.

For Davidson, events as implicit arguments appear to make a better case for countenancing events than events as referents of terms. There is a reason why referential noun phrases are not the best guide to the ontology implicit in natural language. That is because referential noun phrases may easily serve to introduce highly derivative entities (for example with reifying terms as discussed in Section 4), and, they may merely intentional (nonexistent) entities, and that both in virtue of the semantics of their construction (Section 3, 5).

The very same sorts of arguments that had motivated events to be part of the ontology of language motivates tropes, that particularized properties, to be part of it. As an ontological category, tropes have played an important role since Aristotle, for whom they were one category besides substances, secondary substances, and qualities. Tropes have traditionally been considered the semantic values of referential NPs formed with adjective nominalizations such as *Socrates’ wisdom* or *John’s happiness*, or *the redness of the apple* (Strawson 1959, Woltersdorff 1970, Moltmann 2004, 2013b, Chap 2). But tropes also play a role as implicit arguments of adjectives. Modifiers of adjectives, at least to an extent, also occur as predicates of the corresponding trope-referring term obtained from the adjective (Moltmann 2009, 2013b), as illustrated below:

(15) a. Socrates is extremely wise.

b. Socrates’ wisdom is extreme.

This means that *wise* describes a relation between wisdom tropes (manifestations of wisdom) and agents, so that (15b) will have the analysis in (16):

(16) ∃t(wise(t, Socrates) & extreme(t))

While natural language gives equal support for tropes and for events, the reflective ontology of at least certain types of speakers tends not to support both categories equally well. While events are an established category in contemporary linguistic semantics (and syntax) and in philosophy, tropes are much less so. This was different, however, in earlier periods in the history of philosophy, as already mentioned. Tropes during those periods played a much more important role in metaphysics and presumably the reflective ontology of speakers. This means that for events and tropes -- and presumably in general, natural language gives a more stable ground of judgments for ontology than the more explicit assumptions underlying a reflective ontology.

What entities are taken to play a role in the semantics of natural language depends very much on the way the contribution of occurrences of expressions to the composition of the meaning of the sentence is conceived. Thus, generally, the contribution of noun phrases acting as referential terms is taken to be that of standing for an object, and the role of expressions acting as predicates to take objects as arguments and to yield truth or falsehood. The ontology of natural language is thus intimately linked to compositional semantics and the view that expressions with a particular syntactic role should make the same contribution to the meaning of sentences. This is in essence Frege’s Context Principle, with its particular application to referential noun phrases, as standing for objects as their contribution to the meaning of sentences.

**3. Referential terms and language-driven notions of objects**

**3.1. Referential terms and the notion of an object**

In general, being the semantic value of a referential noun phrase is considered the primary criterion for an object to be part of the ontology of natural language. Referential noun phrases, that is, names and referential (nonpredicative) occurrences of definite noun phrases, presuppose the existence of their semantic value, an object. Aagain it is presuppositions that are indicative of the ontology implicit in language.

It is one of the most striking features of natural language that it contains a wealth of referential terms displaying a great range of abstract, ‘derivative’, and ‘minor’ entities, many of which would not be part of the reflective ontology of a speaker and certainly not of every philosopher. They are generally taken to include abstract objects such as properties, propositions, and numbers, objects which many philosophers reject. In my own work I have argued that the ontology of natural language does not really involve abstract objects of this sort in its core. However, it does involve a great range of derivative and minor objects that display. In the following subsections, I will present a few cases of a particularly striking discrepancy between the ontology reflected in referential terms in natural language and the reflective ontology of ordinary speakers or philosophersmmmm.

The notion of a referential noun phrase (or term) is used by philosophers and linguists alike as a criterion for the way natural language reflects the ontology of natural language. The notion of a referential term must be understood in a certain way when applied to natural language (rather than a formal language). In the context of natural language, it should be understood as a syntactic role of occurrences of expressions in sentences, rather than as a syntactic category. Definite noun phrases as such can also occur predicatively and as complements of intensional transitive verbs (*need, look for*) and then do not stand for objects. While there is no agreed-upon set of criteria for identifying an occurrence of a noun phrase in a sentence as a referential term, there are two sorts of criteria for referential terms that philosophers and linguists generally make use of. This is the ability of supporting anaphora and the ability of being replaceable by a quantifier.[[2]](#footnote-2)

The anaphora and quantifier criteria need to be applied with caution, though. Not all quantifiers and pronouns that are able to replace an occurrence of an expression in a sentence are indicative of the expression acting as a referential term. There is a class of special quantifiers and pronouns that characteristically are able to replace nonreferential occurrences of expressions. In English, this class consists of quantifiers like *something,* *everything, nothing*, *several things*, and *that.* They can replace predicative complements and complements of intensional transitive verbs as well as *that*-clauses (which are often considered nonreferential expressions):

(17) a. Socrates is wise.

b. Socrates is something admirable.

(18) a. John needs a horse.

b. John needs something.

(19) a. John claimed that S.

b. John claimed something shocking.

Such special quantifiers and pronouns arguably are nominalizing expressions introducing a ‘new’ domain of entities into the semantic structure of sentences, entities that would be referents of corresponding nominalizations (*wisdom* in (17b), John’s need in (18b), *John’s claim* in (19b)) (Moltmann 2003, 2013b, Chap. 3).

In addition to the anaphora and quantifier criterion, a criterion for referential terms that is implicitly used in the philosophical and linguistic literature is the uniformity of the meaning of predicates, identified as extensional predicates, with the variety of noun phrases with which they can occur. If an extensional predicate with a range of referential noun phrases can yield a true sentence with another noun phrase *X*, then *X* should be a referential noun phrase standing for an object. This criterion highlights the connection between ontology and compositional semantics that was already mentioned, and, as stated, the connection between truth and ontology. It makes clear that the question of what objects are involved in the semantics of sentences can be pursued only together with the question under what circumstances a sentence is true. This is important to keep in mind, especially in view of observations to the effect that natural language appears to involve merely apparent objects or lexical-conceptual structures, rather than ‘real’ objects, as will be discussed in the next section.

**3.2. Cases of the discrepancy between the ontology of natural language and the reflective ontology of speakers**

The referential terms of natural language do not display an ontology of what is ordinarily understood as ‘real’ objects. Rather they present a great range of cases of a discrepancy between its ontology and the reflective ontology of speakers or the ontology philosophers may be willing to accept.

Relevant in that respect are the arguments of Chomsky (1998) for the view that natural language does not involve a relation of reference with its referential terms, that is, reference to ‘real’ objects. Chomsky presents a range of examples of referential terms that appear not to stand for what would be considered real objects. For example, what we refer to as a ‘door’ could be painted, replaced, and walked through, properties that could not attributed coherently to ‘real’ object as standardly understood. Unlike a house, a well-accepted object in our reflective ontology, what we refer to as a ‘home’ has peculiar combinations of properties: one can own or sell a home, but not paint a home. Chomsky’s (1998) conclusion is that natural language terms do not involve reference to real objects, in fact that they do not serve to refer to any objects at all. They only involve lexical/conceptual structures deployed by speakers in particular contexts. Instead of a semantics with the notion of reference as its central notion, the linguistic treatment of referential terms requires another level of syntactic representation, of lexical-conceptual structures.

It is doubtful, however, whether this picture is right. Clearly, the sorts of objects Chomsky cites are in some respects grounded in reality, and they play a role in the truth conditions of sentences about them. They are simply not just material objects as standardly conceived, but rather highly derivative objects or perhaps objects viewed from certain perspectives (facets of objects). They are objects with complex individuation conditions that *do* involve features of reality.

Also in regard to his conclusion about reference and semantics in general, it must be said that Chomsky fails to recognize how the ontology of natural language needs to be characterized: not as what there really is and how things really are, but as what things we conceived of and how we conceived of them, to the extent that this is reflected in language. Chomsky fails to appreciate the fundamental distinction between what Fine calls the metaphysics of appearance (or naïve metaphysics) and foundational metaphysics.

Natural language ontology is about the ontology of appearances, not about what there really is. As such, it will be part of linguistics/cognitive science and more specifically semantics. Chomsky’s examples simply involve a discrepancy between the reflective ontology of speakers, with its focus on material objects meeting certain ‘gestalt conditions’, and the ontology implicit in natural language.

Not only nouns may lead to referential terms that stand for highly derivative entities. There are also particular constructions with complex definite noun phrases that lead to terms of that sort.

An example mentioned by Chomsky and often discussed in the context of the challenges of natural language ontology are noun phrases like *the average American*. *The average American* is a noun phrase that appears to satisfy standard criteria for referential terms, allowing for a range of predicates that apply to clearly referential terms (*the average American likes Hamburgers*) and supporting anaphora (*the average American likes hamburgers he also likes French fries*). However, clearly, *the average American* does not stand for an object speakers would accept explicitly. There isn’t a real individual that is the average American. Thus natural language metaphysics has to make sense of the sort of objects *The average American* stands for.[[3]](#footnote-3) This will not be just some fictional object, but rather an object whose properties are strictly based on properties actual Americans have. The *ideal student* is a similar noun phrase, which exhibits criteria of referentiality and thus should stand for an object in the ontology of natural language. It will stand for an object whose properties may just be based on counterfactual assumptions about students meeting certain standards. Noun phrases with modifiers such as *average, typical, ideal,* or *perfect* thus stand for highly derivative entities, whose properties, though are grounded in facts or counterfactual assumptions about particular entities. Such entities, one may say, are ‘generated’ by the semantics of noun modification with certain sorts of modifiers.

Another construction in English, which is very productive but less widely discussed in the literature also shows such a discrepancy between the ontology implicit in language and a speakers’ reflective ontology. These are certain complex noun phrases whose semantic values are what I called *variable objects*, following Fine’s (1999) notion of a variable embodiment (Moltmann 2013b, to appear). Terms for variable objects, variable quantities, and variable degrees (or quantitative tropes), and variable tropes occur in the sentences below:

(20) a. The president of the US is elected every four years.

b. The water in the container has increased.

c. The height of the water level has increased.

d. John’s happiness has not changed.

Following Fine (1999), (20a) and (20b) stand for objects that have possibly different individuals / quantities as manifestations at different times. The view naturally carries over to (20c) and (20d). If heights are degrees, then (20c) stands for a variable object whose manifestations are degrees and (20d) for one whose manifestations at particular circumstances are times (Moltmann 2013, to appear). In (20b) – (20d), the referent in fact can only be the variable object, with the predicate strictly applying to the manifestation at the time of evaluation. Thus, (20b) is incompatible with a statement of the sort *the water in the container is still the same*, referring to the quantity of water in the container at the previous time, and (20d) is incompatible with the statement John’s happiness is no longer there.

With the use of an intensional verb inside the relative clause, the same construction permits reference to variable objects that may lack actual manifestations but have manifestations only in counterfactual circumstances, as below (Moltmann 2013, to appear):

(21) The book John needs to write must be short.

The book John needs to write is a variable object that has as its manifestation a book John has written in any circumstance (situation) satisfying the need in question (Moltmann 2013a, to appear).

The motivations for positing variable objects as semantic values are the same as for positing any other objects as semantic values. Variable objects may act as arguments of the very same predicates as ‘ordinary’ objects, they may be part of a plurality together with ‘ordinary objects, and they support anaphora. Thus the referential status of terms like *the paper John needs to write* is reflected in their ability to support anaphora (in the form of non-special pronouns) (Moltmann 2013b, to appear), allowing (21) to be continued by *It cannot be any shorter or longer*. It is also supported by plurals as in *the book he needs to write and his son are John’s biggest worries*.

For Fine (1999), variable embodiments include organisms and artifacts, as entities that permit a replacement of parts. The notion of a variable embodiment thus would be an extension of notions of objects well accepted in the reflective ontology of speakers and at least a number of philosophers. What is important about variable objects is that they are not just conceptual creations, but rather are strictly grounded in actual or perhaps possible circumstances. The descriptive content associated with terms for variable objects serves to pick out manifestations in circumstances.

Another construction in English that appears to generate a derivative objects in a fully productive way are determinerless mass or plural nominals. In the contexts below, they are generally taken to stand take kind or qualities as semantic values:

(22) a. Giraffes are not extinct.

b. Wisdom is better than cleverness.

*Giraffes* thus would stands for a kind of individual, a kind whose instances are semantic values of corresponding definite or quantificational noun phrases, of the sort *that giraffe* or *some giraffe*. *Wisdom* stands for a kind whose instances are tropes, semantic values of corresponding definite or quantificational noun phrases, of the sort *Socrates’ wisdom* or *some wisdom*. The anaphora criteria appear to support the referential status of such terms. Thus (22a) can be continued by *They can be found in Africa*, and (22b) by *It is much better than cleverness*.

Bare nouns as kind terms with their associated terms for instances seem to support the Aristotelian view of two sorts of universals with two sorts of particulars: secondary substances with primary substances as instances and qualities with tropes as instances. Moreover, kinds seem to share other characteristics Aristotle attributes to them. A universal for Aristotle exists only if instantiated. This seems to be reflected in the behavior of existence predicates:

(23) Wisdom exists.

*Exist* when predicated of such a kind can only state the existence of an instance, not the existence of a possibly uninstantiated kind. Moreover, nonepisodic properties appear to be inherited by the kinds from the instances: men have legs because individual men have legs etc.

However, kinds as semantic values of bare nominals differ significantly from any notion of a kind relevant in philosophical or scientific contexts. Any adjective-noun combination can lead to a kind term, regardless of its content. *Tired giraffes, acquired wisdom* etc. behave semantically in the very same way. Similarly, any combination modifier – adjective nominalization can serve as a term standing for a quality. The kinds in question thus do not match natural kinds or even kinds of artifacts, and the qualities do not match natural properties but abundant ones.

In addition to kind terms or quality terms in this sense, natural language displays property-referring terms of the sort below:

(24) The property of being wise

Such explicit property-referring terms can be formed from any complex predicate (in the form of a gerund), regardless of its content.

Natural language appears to make a fundamental ontological distinction between kinds and properties. Thus, kind terms differ from property-denoting terms with respect to the way predicates are understood. *Exist*with kind terms can only claim the existence of an instance as in (23), but with property-denoting terms it can claim the existence of a possibly uninstantiated kind (*The property of wisdom exists*). *Look for* when applied to a kind term requires just an instance to satisfy the search, as in (26a); but when applied to a property referring term, it requires the property itself to play that role, as in (26b):

(26) a. John is looking for wisdom.

b. John is looking for the property of wisdom.

Both kinds and properties are driven strictly by the complex nominals that are used, not concerns about what is real or natural.[[4]](#footnote-4) However, unlike properties, kinds are grounded in particular instances and their properties are strictly understood on the basis of their instances.

Also tropes (particularized properties) display a significant discrepancy between the ontology many contemporary philosophers accept and the ontology reflected in natural language. More recently, tropes have come to play a central role within foundational metaphysics. Since Williams’ (1953) influential article, a number of philosophers have pursued a trope nominalist one-category ontology, proposing to conceive of properties as classes of similar tropes and individuals as bundles of co-located tropes (Campbell 1990, Bacon 1995, Simons 1994).

Natural language displays a wealth of trope-referring terms, namely NPs with adjective nominalizations such as *Socrates’ wisdom* or *the redness of the apple*. Natural language also reflects the crucial notion of exact similarity among tropes, in the applicability of *the same as* (*The redness of the apple is the same as the redness of the tomato*). However, tropes as part of the ontology of natural language differ significantly from tropes as discussed in contemporary foundational metaphysics.

First of all, tropes in foundational metaphysics are generally taken to be manifestations of natural (or sparse) properties. By contrast, adjectives hardly ever express natural or fully specific properties. Yet trope-referring terms in natural language generally refer to fully specific complex tropes. Terms like *the redness of the apple* in fact refer to a specific shade and hue of redness manifested in the apple and thus would be fully specific tropes, even though the adjective *red* describes an unspecific property. Tropes such as wisdom, beauty, and happiness are considerably more complex, yet again *John’s happiness* refers to a complex tropes composed of the very specific things that together constitute John’s happiness. In that respect John’s happiness differs from the state that is the referent of *John’s being happy* and the nonworldly fact that is the referent of *the fact that John is happy*. The latter are not grounded in specific features of reality, but rather are just constituted by the property of being happy and John, as the holding of that property of John (at a time).

Natural language moreover displays a difference between a trope that is the referent of *John’s height* and a trope that is the referent of *John’s tallness*. The former can exceed Bill’s height, but not really the latter, for example. John’s tallness is in fact a considerably more complex trope, it is something like John’s height qua exceeding the contextual standard (Moltmann 2009). Natural language furthermore displays a difference between the trope that is the referent of *John’s strength* and the trope that is the referent of *John’s weakness*, and that even in a case where John is in a way both strong and weak (Moltmann 2009). In such a case John’s strength and Johns weakness could not possibly refer to the same physical condition, the same simple trope that has John as bearer. John’s strength may exceed Mary’s strength, but then that could not be true of John’s weakness.

Thus, the ontology of tropes or trope-related entities that natural language reflects is considerably richer than the foundationalist trope ontologies that philosophers more recently have pursued. Still trope terms in natural language stand for entities grounded in fully specific tropes, unlike terms for states or nonworldly facts, which stand for objects strictly constituted by the descriptive content of the terms making reference to them.

The examples discussed in this section make particularly clear that the ontology displayed by natural language may differ from the sort of ontology that a philosopher may be willing to accept. But it may also differ from the ontology an ‘ordinary’ speaker of the language may be willing to accept when reflecting upon what there really is. An ordinary speaker may hold various views when thinking about what sorts of things there are, what general characteristics they have, and how they relate to each other, and may endorse or reject various ontological statements as a result of such reflections.

**4. Reifying terms and the core-periphery distinction**

In addition to the terms mentioned in the previous section, natural language permits an even greater range of referential terms that may stand for philosophically contested entities, namely what I called ‘reifying’ terms (Moltmann 2013b, Chap 6). The constructions *the fact that* S and *the property of being* A are ‘reifying terms’. Whereas facts and properties may seem problematic to some, the very same construction also permits reference to numbers, degrees, directions and truth values:

(27) a. the number eight

b. the degree of happiness

c. the direction north

d. the truth value true

There is something special about this construction to the effect that philosophers hardly ever appeal to it when arguing for entities playing a role in the semantics of natural language. Thus, Frege did not appeal to terms like (22a), but rather to terms like the number of planets when arguing for numbers as objects, and he certainly did motivate truth values by appealing to terms like (27d).[[5]](#footnote-5) Reifying terms as in (22) introduce new entities on the basis of nonreferential expressions or uses of expressions (such as nouns, adjectives, or, arguably, *that*-clauses). Though reifying terms are part of English, they can be taken at best as evidence for certain types of objects playing a role in certain philosophical discourse. They are hardly taken as a reflection of objects being part of the ontology of language.

In addition to reifying terms, natural language also of course permits extensions, in the form of proper names or new nouns, defining new technical terms introduced by philosophers, researchers, or simply a reflective speaker. Clearly, the semantic values of those terms should not have the same status as the semantic values of terms ‘ordinary’ speakers use.

There are thus two different sorts of material to be distinguished: linguistic data that in some sense of belong to the *core* of language and data that belong to a part that conveys an ordinary speaker’s or philosopher’s reflections, its *periphery*. The periphery in that sense consists of extensions of natural language with terms, either reifying terms or proper names. These extensions lead to entities that some philosophers may accept, but which one would not consider part of the implicit ontology of natural language, the ontology any speaker accepts when using the language. The ontology reflected in the periphery needs to be distinguished from that reflected in the core of language, the ontology any speaker accepts when using natural language. Thus a condition of the following sort obtains:

(28) The ontology of natural language is reflected in the core of language, not its periphery.

Certainly, the periphery of language also has a semantics, and it also reflects an ontology, with its referential terms standing for entities of some sort. Using Fine’s (to appear a) notion, this ontology would also be part of the subject matter of the metaphysics of ‘appearance’– and that even if the extension of the language concerns in fact terms of foundational metaphysics.

The terms *core* and *periphery* recall a different distinction that Chomsky (1986) made regarding the syntactic structure of languages. For Chomsky, the ‘core’ of a language consists in what is determined by the (innate) Universal Grammar, its universal principles together with the way its parameters are set for that language. By contrast, what he calls the ‘periphery’, roughly, consists in idiosyncratic rules unique to that language and added on in the historical development of the language. Chomsky’s distinction, however, does not in any way coincide with the present distinction. Clearly, the formation of new philosophical terms may take place entirely within what Chomsky would call the ‘core’ of language. This most certainly is the case with reifying terms, which are formed productively across European languages and, as has been argued, are syntactically special in involving quotation (Moltmann 2013b).

On might speculate that the ontology associated with what I call of the core of language forms part of Universal Grammar when supplemented by cognitive ontology, whereas the ontology reflected in the periphery in my sense forms part of the periphery of language. However, ontology itself may consist not so much in a set of categories, but rather in conditions for generating objects from given ones. Such objects may be partly what is reflected in the periphery.

Not all noun phrases that are of the construction of reifying terms belong to the periphery in the present sense. Explicit fact-referring terms and even explicit property-referring terms are a sort of intermediary case. Philosophers practicing natural language metaphysics have made use of them: Vendler (1967), for instance, when arguing for a fundamental distinction between facts and events, and when arguing for a distinction between qualities and properties.

One important feature of the ontology of natural language is that it is in part creative. That is, it involves a range of operations by which new objects can be introduced on the basis of given ones. This arguably holds of the type of objects that various sorts of nouns may describe, but it particularly holds for certain constructions of referential terms whose compositional semantics goes along with a particular ontology of derived objects.

Schiffer (2003) proposed a notion of a pleonastic object, which is directly tied to the use of referential terms. Thus, in the inference from *Socrates is wise* to *Socrates has the property of wisdom*, the property of wisdom is a pleonastic object whose properties are strictly those the term is attributed to as a result of inferences of this kind.

Reifying terms, terms of the sort *the number eight* or *the truth value true* display a syntactic structure whose semantics consists in the introduction of an object on the basis of an expression that is mentioned rather than used, and most obviously is not used as a referential term (Moltmann 2013b). Thus, in *the truth value true*, *true* is just mentioned, and the construction serves to introduce a truth value on the basis of the mentioned truth predicate.

A creative ontology is also displayed by the structure of definite NPs that stand for variable objects as well as the use of bare nouns, which goes along with the introduction of kinds, in a relevant sense.

Also objects conceived as merely conceived objects are part of the creative ontology of natural language, if they are constituted by the coordination among quasi-referential acts that the linguistic context is explicitly or implicitly about (Moltmann 2016) (Section 5).

**5. How to characterize the ontology of natural language**

The ontology implicit in the use of language, we have seen, may be different from the reflective ontology of speakers and certainly from the ontology a philosopher may be willing to accept, and of course from the ontology of what there really is. Natural language ontology concerns itself with the ontological categories, notions, and structures implicit in ‘ordinary’ statements of a nonphilosophical discourse, not those that form part of the content of philosophical or quasi-philosophical assertions. The ontology of natural language, as an ontology distinct from the reflective ontology of both philosophers and non-philosophers, is to be characterized in terms of an implicit object-related attitude, that of implicit acceptance. A first proposal of the characterization of the ontology of natural language would then be as below:

(29) The ontology of a natural language is the ontology speakers of the language implicitly

accept.

Given that characterization, the ontology implicit in natural language should an ontology that is part of our cognitive system, an ontology that goes along with speakers’ implicit beliefs, using or not using the language.

However, this is too strong a condition. We have seen in the last section that the ontology of natural language may be driven by language itself, by the particular constructions available in that language that serve to define derivative objects as semantic values. One such example is the variable objects and the quasi-kinds that act as semantic values of certain definite NPs and of bare nominals in English. There are various other examples of a language-driven part of the ontology of natural language. Thus the mass-count distinction appears to reflect an ontological distinction. But if so, it is be a highly language-dependent ontological distinction. *The rice, the rice grains*, and *heap of rice* may stand for the very same thing not just for the philosopher, but a non-philosopher as well. However, only the rice grains can be counted or be indistinguishable, but not the rice; the heap of rice may be small, but not the rice (and neither may the rice grains in the same sense). Another example is a quasi-ontological conception of discourse referents, semantic values of unbound anaphoric pronouns (or donkey pronouns). Discourse referents are presented as objects individuated by the flow of discourse in Karttunen (1976), Landman (1986), and Edelberg (1986). Yet another example are descriptions of non-worldly facts described by NPs of the form *the fact that it is raining or it is snowing*, which one may call ‘canonical fact descriptions’ (Moltmann 2013b). Non-worldly facts are entities whose nature is exhausted by the descriptive content of their canonical fact description. Objects tied to constructions of the language or the discourse would not be part of the ontology that speakers always implicitly accept, but only when using the language as follows. This then motivates the weaker characterization of the ontology of natural language below:

(30) The ontology of a natural language is the ontology a speaker *implicitly* *accepts when*

*using the core of the language*.

(30) characterizes the ontology of natural language in terms of an object-related notion of ‘implicit acceptance’. Acceptance is an intentional notion that does not require the existence of the object to which it applies. Thus ‘the things that a speaker implicitly accepts when using the language’ does not apply to a domain of ‘real’ objects, but may also cover merely conceived objects. In fact the domain of objects reflected in the core of language as all as well its possible extensions cannot be characterized as a domain of ‘real’ objects, but may include merely conceived objects. The notion of a real object and the difference between a real and a merely conceived object should in fact not play a role at all for the ontology of natural language. Natural language does not make a difference whether its terms stand for actual objects or merely conceived ones, as long as they are accepted as such (implicitly) by the language user. In fact not just the object-related related notion of acceptance is an intentional notion, but also reference. *Refer, describe*, and *mention* are intentional transitive verbs that permit their object argument to be a merely intentional object (Moltmann 2016).

Note that conceived objects need to be distinguished from concepts or conceptions of objects. The latter are representations, the former are things meant to be represented. The latter share properties with ‘real’ objects. By contrast, representations have representation-specific properties, not the properties of what they represent.

Conceived objects as part of the ontology of natural language need to be distinguished from objects the speaker takes to be merely intentional. Natural language also permits referential terms to stand for merely intentional objects that the speaker herself takes to be nonexistent. That is, natural language reflects a Meinongian view of there being objects that fail to exist (Parsons 1980, Salmon 1987, 1998, Fine 1982a, Moltmann 2013a, 2016). This view is implicit in language and support for it would, of course, not be Meinongian assertions of the sort below:

(31) There are things that do not exist.

Rather support comes from sentences carrying the Meinongian view as a presupposition, such as negative existentials as in (32) and sentences with intentional transitive verbs such as *think* as in (33):

(32) a. The building described in the book does not exist.

b. A building described in the book does not exist.

(33) a. John thought about a building described in the book.

b. John thought about some building.

Reference to what the speaker herself takes to be merely intentional objects does not come for free, though, but requires particular lexical and syntactic conditions. Most predicates are existence-entailing, meaning require arguments the speaker takes to actual objects. Only certain predicates, especially predicates of existence and intentional predicates, allow for arguments the speaker allows to be merely conceived objects (Moltmann 2016).

Thus, a distinction needs to be made between semantic values of referential terms that speakers conceive to be objects and those that speaker view as possibly merely intentional objects. Predicates may select one or the other sort as arguments.

To conclude, the ontology of natural language is an ontology of conceived objects, including objects a speaker conceives as being merely conceived objects.

**6. Degrees of objecthood and the semantic structure of sentences**

Referential terms from the core of language have as their semantic values objects that are part of the ontology that is implicit in natural language. However, entities may play other roles in the semantic structure of sentences than that of being semantic values of referential terms. In particular, entities may play a role as implicit arguments of predicates, as contextual parameters of evaluation, and as truth makers. These roles of course may depend to an extent on particular semantic theories about relevant constructions or expressions or about the format of the semantic theory as such. The question then is, do entities that play different semantic roles differ in ontological states? It appears that entities that act as semantic values of referential terms and perhaps entities that act as implicit arguments are generally considered having a different ontological status from those playing only other semantic roles.

The notion of a referential term has been taken to provide a criterion for objecthood itself by Frege as well Neofregeans such as Hale (1987) and Wright (1983). According to that criterion, an object is what a referential term may stand for. That is, objecthood is tied to what expressions with the role of referential terms contribute to the meaning of the sentence. The Fregean criterion raises the question whether other semantic roles of entities may equally provide a criterion of objecthood. It appears that in general other semantic roles are not treated that way, and the question is why.

Let us first consider implicit arguments. Besides event and trope arguments of verbs and adjectives, various other sorts of implicit arguments have been postulated by various semantic analyses. They include degrees as arguments of adjectives, contextual standards for various sorts of gradable expressions, and modes of presentations for referential terms in sentences embedded under attitude verbs (and perhaps elsewhere). As arguments of predicates, degrees (say, of height or of happiness), contextual standards, and modes of presentation would have the status of objects. In fact, when degrees or contextual standards are posited as implicit arguments, they are not generally attributed the status of objects. This is even more so for the case for modes of presentation. There are different possible reasons why degrees or contextual standards as implicit arguments may fail to have full objectual status. First, the Fregean criterion fails to apply, in that, in the core of language, there are not really terms able to refer to them, or in fact other ways for ordinary speakers to make them explicit. But why should the Fregean criterion have a privilege?[[6]](#footnote-6) Why should the use of a singular term make the difference? It might be implicitly attributed to being the object of an act of reference, however, this this could not account for definite NPs, whose use equally qualify a semantic value as an object. It might attributed instead to the general presence of a sortal in noun phrases, though this would require positing an implicit sortal also for proper names. Finally,

it might be attributed to the fact that the relevant referential noun phrases are count rather than mass, whereas implicit arguments of predicates that as such do not come with a mass-count distinction would be number-neutral. But then it is at least controversial whether the mass-count distinction as such bears on the status of entities as objects.

Another important role entities may play in the semantic structure of sentences is as parameters of contextual evaluation, as part of the context of utterance which serves to identify the meaning of an indexical expression, or as a parameter relative to which a sentence is evaluated as true or false. Most important for that role are times and possible worlds. Possible worlds or partial possible worlds (situations) have been posited as parameters of evaluation in particular for the semantics of modals and conditionals. Times are generally posited for the semantics of tense. While there are clearly referential terms available for times, this is hardly the case for worlds, at least not from the core of language.[[7]](#footnote-7)

Being a truthmaker is another possible role entities may play in semantics, given Fine’s (to appear b) recent truthmaker semantics. It is a role similar to that of possible worlds, in providing a notion of truthconditional content and a semantics of conditionals and modals. However whereas in possible-worlds semantics, the relation between a world and a sentence is that of inexact truthmaking (sentence S is true in a world w), truthmaker semantics is based on the relation of exact truthmaking, which holds if a world is wholly relevant for the truth of the sentence (a situation *s* is an exact truthmaker for sentence S). The meaning of a sentence can be then be identified with the set of its truthmaking situations (or rather the pair consisting of a set of truthmakers and a set of falsemakers). In forthcoming work (Moltmann, ms), I argue that there are nominal constructions that permit explicit reference to truthmakers in the sense of truthmaker semantics, namely NPs with the noun *case* as head as in *two cases in which a student was late*.

There is an even stronger implicit assumption that entities playing the role of parameters of evaluation do not enjoy the same ontological status as objects that play the role of semantic values of referential terms as well as objects that play a role just as implicit arguments. In part, this may be because of an assumption that the entities that serve as parameters of evaluation are just part of the ontology of the metalanguage, posited by the semanticists for the purpose of accounting for the intuitively valid inferences among sentences of the object language. Only entities that could be the argument of predicates or semantic values of referential terms would be part of the domain of the ontology of the object language. Thus, it is generally considered a discovery of considerable interest if there are terms in some language that take entities as semantic values that were considered just parameters of evaluation. The assumption is based on a view according to which a semantic theory need not aim to be cognitively plausible theory, a view that is not generally shared.

One possibility of making sense of the difference among entities that are arguments of predicates and those that serve as parameters of evaluation is that different semantic levels correspond to different degrees of ontological acceptance. On that view, the semantic structure of natural language with the different ways for entities being involved in it would reflect degrees of explicitness of ontological acceptance. Acceptance of entities playing the role of parameters of evaluation would be more implicit than acceptance of entities acting as implicit arguments, and acceptance of the latter would still be more implicit than acceptance of entities playing the role of semantic values of referential terms.

**7. Conclusion**

Given the discussion of this paper, one can say that the ontology of natural language, properly conceived, should be recognized as playing an equally important role within the human cognitive faculty as syntax and phonology. In fact, the same expectations can be imposed on the ontology as on syntax: that a deeper analysis of a particular language or difference languages with respect the ontology it reflects should reveal highly systematic and universal features, shared ontological categories or ontological operations, structures, and notions.

Not only metaphysics requires a distinction between what is implicit in natural language and what is explicitly represented in theories or philosophical (or naive) reflection. The same distinction applies to other branches of philosophy, such as philosophy of mind, philosophy of language, and epistemology. Thus, in epistemology, features of the concept of knowledge has been analysed by paying close attention to the verb *know* and the complements it takes. There is to an extent also a philosophy of language implicit in language, reflected in part in the syntax and semantics of the verb *mean*, of truth predicates, and of attitude and speech act speech act verbs. For the philosophy of mind, what is implicit in language is particularly important, since its subject matter is, at least in part, the folk psychology of propositional attitudes and other notions, for which the syntax and semantics of verbs of propositional attitudes, perception and emotion are very important (though not all the relevant intuitions need to be tied to linguistic data).

**Acknowledgments**

I would like to thank Brian McLaughlin for comments on a previous version of this paper. The paper has also benefitted greatly from conversations with Chris Collins as well as from audiences of talks at the University of Milan, Yale University, the IHPST in Paris, Princeton University, and the FOIS conference in Annecy.

**References**

Asher, N. (1993): *Reference to Abstract Objects*. Kluwer Academic Publishers, Dordrecht.

Bacon, J., (1995): Universals and Property Instances—The Alphabet of Being, Blackwell,

Oxford.

Barwise, J. / J. Perry (1983): *Situations and Attitudes*. MIT Press, Cambridge (Mass.).

Campbell, K. (1990): *Abstract Particulars*. Blackwell, Oxford.

Chomsky, N. (1986): *Knowledge of Language. Its Nature, Origine, and Use*. Praeger,

Westport (Ct) and London.

--------------- (1998): *New Horizons in the Study of Language and Mind*. Cambridge UP,

Cambridge.

Cresswell, M. J. (1986): ‘Why Object Exists, but Events Occur’. *Studia Logica* 45, 371-5.

Davidson, D. (1967): 'The Logical Form of Action Sentences'. In N. Rescher (ed.): *The Logic*

*of Decision and Action*. Pittsburgh UP, Pittsburgh, 81–95.

Edelberg, W. (1986): ‘A New Puzzle about Intentional Identity’. *Journal of Philosophical*

*Logic* 15, 1–25 (1986).

Fine, K. (1982a): ‘The Problem of Non-Existents. I. Internalism.” *Topoi*, 1: 97–140.

---------- (1982b): ‘First-Order Modal Theories III – Facts’,Synthese 53, 293–308.

---------- (1999): ‘Things and Their Parts’. *Midwest Studies of Philosophy* 23, 61-74.

---------- (2001): ‘The Question of Realism’. *Philosophers Imprint1*.1.

---------- (2006): ‘In Defense of Three-Dimensionalism’. *Journal of Philosophy* 699-714.

---------- (to appear a): ‘Naïve Metaphysics’. *Philosophical Issues* (vol. 27), edited by J.

Schaffer.

---------- (to appear b): ‘Truthmaker Semantics’. *Blackwell Philosophy of Language*

*Handbook*. Blackwell, New York.

---------- (to appear c): ‘Form’. Ms NYU.

Frege, G. (1884): *Die Grundlagen der Arithmetik* (‚Foundations of Arithmetic’)

---------- (1892): ‘Funktion und Begriff’. Reprinted in G. Patzig (ed.): *Funktion, Begriff,*

*Bedeutung*, Vandenhoeck and Ruprecht, Goettingen.

Hacker, P.M.S. (1982): ‘Events, Ontology, and Grammar’. *Philosophy* 57, 477-486.

Hale, B. (1987): *Abstract Objects*. Blackwell, Oxford.

Hofweber, T. (2007): ‘Innocent Statements and their Metaphysically Loaded Counterparts’.

*The Philosophers’ Imprint*, Vol. 7 no. 1.

Van Inwagen, P. (2001): ‘Existence, Ontological Commitment, and Fictional Entities’. M.

Loux / D. Zimmerman (eds.): *The Oxford Handbook of Metaphysics*. Oxford UP, Oxford.

Karttunen, L. (1976): ‘Discourse Referents’. In J. D. McCawley (ed.): *Syntax and Semantics,*

*Vol.7.* Academic Press, New York, 363 - 386.

Kennedy, C. / J. Stanley (2009): ‘On Average’. *Mind* 471, 583 - 646.

Kim, J. (1976): 'Events as property exemplifications'. In M. Brand / D. Walton (eds.):

*Action Theory*. Reide, Dordrecht.

Kratzer, A. (2007/2014): ‘Situations in Natural Language Semantics’. *Stanford Encyclopedia*

*of Philosophy*. Online.

Landman, F. (1986): ‘Pegs and Alecs’. In F. Landman: *Towards a Theory of Information.*

*The Status of Partial Objects in Semantics*, GRASS 6, Foris, Dordrecht, 97-155.

Lowe, J. (2006): *The Four-Category Ontology. A Metaphysics Foundation for Natural*

*Science*. Oxford UP.

Moltmann, F. (1997): *Parts and Wholes in Semantics*. Oxford UP, New York, 1997.

---------------- (2005): ‘Part Structures in Situations: The Semantics of *Individual* and *Whole*’. *Linguistics and Philosophy*, 28.5., pp. 599-641.

---------------- (2007): ‘Events, Tropes and Truthmaking’. *Philosophical Studies* 134,

363-403.

---------------- (2009): ‘Degree Structure as Trope Structure: A Trope-Based Analysis of

Comparative and Positive Adjectives’. *Linguistics and Philosophy* 32, 51-94.

---------------- (2013a): ‘Reference to Numbers in Natural Language’. *Philosophical Studies*

162.3., pp. 499-534.

---------------- (2013b): *Abstract Objects and the Semantics of Natural Language*. Oxford UP,

Oxford.

--------------- (2013c): ‘On the Distinction between Abstract States, Concrete States, and

Tropes’. In C. Beyssade, A. Mari, F. Del Prete (eds.): *Genericity*, Oxford UP, Oxford,

pp. 292-311

---------------- (2013d):‘The Semantics of Existence’. *Linguistics and Philosophy* 36.1., 31-63.

---------------- (2014 b): ‘Parts, Wholes, Abstracts, Tropes and Ontology. 3am interview with

Richard Marshall, Feb. 14, 2014,

---------------- (2016): ‘Quantification with Intentional and with Intensional Verbs’. In

A. Torza (ed.): *Quantifiers, Quantifiers, Quantifiers*. Synthese Library, Dordrecht.

---------------- (2017): ‘Natural Language Ontology’. *Oxford Encyclopedia of Linguistics*

Online

---------------- (to appear): ‘Variable Objects and Truthmaking’. To appear in M. Dumitru

(ed.): *The Philosophy of Kit Fine*, Oxford UP, New York, 33pp.

-------------------- (ms): ‘A Truthmaker Semantics for Cases’. Ms NYU/CNRS, September

2015

Montague, R. (1973): ‘The Proper Treatment of Quantification in Ordinary English’. In J.

Hintikka et al. (eds.): *Approaches to Natural Language*. Reidel, Dordrecht.

Oliver, A. / T. Smiley (2013): *Plural Logic*. Oxford UP. Oxford.

Parsons, T. (1980): *Nonexistent Objects*. Yale UP, New Haven.

Rizzi, L. (1990): *Relativized Minimality*. MIT Press, Cambridge, Mass.

Salmon, N. (1987): ‘Existence’. *Philosophical Perspectives* 1, 49-108.

-------------- (1998): ‘Nonexistence’. *Nous* 32.3., 277-319.

Schiffer, S. (1996): ‘Language-Created and Language-Independent entities’. *Philosophical*

*Topics* 24.1., 149-167.

-------------- (2003): *The Things we Mean*. Clarendon Press, Oxford.

Simons, P. (1994): ‘Particulars in Particular Clothing: Three Trope Theories of Substance’.

Philosophy and Phenomenological Research 54(3), 553–575.

Strawson, P. (1959): *Individuals. An Essay in Descriptive Metaphysics*. Methuen, London.

Thomasson, A. (2014): *Ontology Made Easy*. Oxford UP, Oxford.

Twardowski, K. (1911): ‘Actions and Products. Some Remarks on the Borderline of

Psychology, Grammar, and Logic’. In J. Brandl/J. Wolenski (eds.): *Kazimierz*

*Twardowski. On Actions, Products, and Other Topics in the Philosophy*. Rodopi,

Amsterdam and Atlanta, 1999, 103-132.

Vendler, Z. (1967). *Linguistics in Philosophy*. Cornell University Press, Ithaca, NY.

-------------- (1972): *Res Cogitans*. Cornell UP, Ithaca, NY.

Williams, D. C. (1953): 'On the Elements of Being'. *Review of Metaphysics* 7, 3-18.

Woltersdorff, N. (1970): *On Universals*. Chicago UP, Chicago.

Wright, C. (1983): *Frege's Conception of Numbers as Objects*. Aberdeen UP,

Aberdeen.

Yi, B.-Y. (2005): ‘The Logic and Meaning of Plurals. Part I’. *Journal of Philosophical*

*Logic* 34, 459-506.

---------- (2006): ‘The Logic and Meaning of Plurals. Part II’. *Journal of Philosophical*

*Logic* 35, 239-288.

1. Fine (p.c.) also uses the term ‘shallow metaphysics’ instead of ‘naïve metaphysics’, perhaps a better choice when it comes to natural language ontology. ‘Shallow metaphysics’ is the term I use, following Fine (p.c.), in Moltmann (2014b) for the branch of the metaphysics that natural language ontology belongs to. [↑](#footnote-ref-1)
2. For example Hale (1987) as well as Chomsky (1998) make use of the anaphora criterion. [↑](#footnote-ref-2)
3. An alternative analysis of *the average American* not making use of derivative objects see Kennedy/Stanley (2009). That some putative referential should be reanalyzed as not standing for derivative objects of an enriched ontology is of course a theoretical option that is in principle avaible. [↑](#footnote-ref-3)
4. The peculiar status of kinds as semantic values of anaphora support is also compatible with *wisdom* not being a singular term, but a plural term standing for the plurality (as many) of the actual and possible instances of the kind (in the sense of plural reference of Yi 2005, 2006, Oliver/Smiley 2013) (Moltmann 2013b). [↑](#footnote-ref-4)
5. Predicate-initial sortals also have a reifying function:

   (i) a. Wisdom is a property few have.

   b. Eight is a number that is divisible by two.

   See Moltmann (2013b) for discussion. [↑](#footnote-ref-5)
6. In the semantic theories, generally only a single domain is posited for objects playing the role of arguments, implicit or explicit. In generative syntax, though, Rizzi (1990) makes a distinction between objects in the domain D and degrees as arguments of measure verbs. [↑](#footnote-ref-6)
7. Nouns like *circumstance* or *situation* certainly belong to the core of English, but they stand for partial worlds and involve particular constraints. [↑](#footnote-ref-7)