*Conceptualizing Reality in the Aristotelian Tradition and Beyond*

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**Levels of Ontology and Natural Language: the Case of the Ontology of Parts and Wholes**

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In contemporary metaphysics, it is common to recognize two levels of ontology:

[1] The ontology of ordinary objects, which is reflected in our ordinary judgments

[2] The ontology of what there ultimately is, fundamental reality

Natural language, with its referential NPs, obviously reflects the ontology of ordinary objects (as well as entities ontologically dependent on them), an ontology of material objects, artifacts, events, shadows, holes, tropes? …

Aim of the talk is to argue for another level of ontology:

[3] The ‘language-driven ontology’

The language-driven ontology is motivated by two sorts of phenomena:

[1] The ontology of parts of wholes broadly speaking, in the way it is reflected in the mass-singular count-plural distinction as well as in part-structure-sensitive semantic selectional requirements

[2] The light of ontology of pleonastic entities in the sense of Schiffer (1996)

The language-driven ontology of parts and wholes manifests itself in:

[1] A primitive notion of unity conveyed by singular count nouns (but not mass nouns)

[2] Semantic selectional requirements of predicates or readings of predicates that care about whether arguments or their parts have unity in that sense.

The question of the status of the language-driven ontology:

Does the language-driven ontology situate itself at a purely conceptual, mind-internal level or can it be viewed as a level of actual, if selection-based ontology?

The present view:

The language-driven ontology is an ontology of the real, though based on a selection of actual entities and features of entities, and in that sense it is perspectival.

The very same view would hold for the ontology of ordinary objects:

The ontology of ordinary objects is an ontology of derivative, actual entities whose composition and nature is based on selection (of features and matter).

Reality, rather than being a realm of matter or of particles or of ordinary objects, is viewed as

a plenitude of entities, simple and derivative, all of which have (primitive) unity.

Some of those entities will count as ordinary objects, others won’t, depending on selection. Some of those entities will count as single entities in the language-driven ontology, some of them won’t, depending on language-based selection of entities and their features.

The language-driven ontology and the ontology of ordinary objects thus are on par, based on a mind- or language-dependent selection among what is real.

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**1. Reflection of ontology in natural language**

The background assumption:

Natural language reflects ontology, though not the ontology of fundamental reality

Most importantly, natural language reflects entities with its referential and quantificational NPs and its predicates:

E.g. in *John sees a tree*, the referential NPs *John* and the quantificational NP *a tree* stand for objects and the property expressed by *saw* is predicated of John and one of the objects *a tree* ranges over.

The standard view, in both linguistics and philosophy of language:

Referential NPs (names, definite NPs) stand for objects, quantificational NPs range over objects; predicates express properties of objects.

Motivations:

[1] Matches the intuitive functions of parts of speech: we use referential NPs to refer to entities and predicates to attribute properties to them.

[2] Allows for a uniform semantics of NPs and of predicates, and thereby guarantees compositionality.

Frege and neo-Fregeans (Wright 1983):

The semantic function of a referential NP in as sentence is that of standing for an object

Consequences:

[1] Requires recognizing a wider range of entities than what many metaphysicians may be willing to accept (various derivative and perhaps abstract entities).

[2] Requires recognizing entities that are specifically part of the language-driven ontology, in particular pluralities (denotations of definite plural NPs) and quantities (denotations of mass NPs).

Definite singular count, plural and mass NPs allow for the same predicates, with the very same reading:

(1) a. The stone weighs one kilo.

 b. The stones (together) weigh 5 kilo.

 c. The material weighs 5 kilo.

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**2. The mass-count distinction**

The mass-count distinction:

A syntactic distinction between nouns in many languages:

nouns that display a singular-plural distinction are count; nouns that do not are mass.

Further, standard criteria for mass nouns as opposed to count nouns:

selection of quantifiers (mass nouns go with *little* and *much*, count nouns with *few* and *many*), resistance to numerals for mass nouns, but not count nouns, …

General agreement:

The syntactic mass-count distinction has a content: the semantics mass-count distinction.

The semantic mass-count distinction as an ontological distinction?

Count: entities that come with a boundary, form, or integrity of some sort

Mass: entities that lack a boundary, form, or integrity (Jespersen 1924)

The theory of situated part structures (Moltmann 1997, 1998, 2005):

The notion of integrity is relativized to a situation, permitting entities to be accidental integrated wholes and to have or lack integrity just on the basis of linguistic information.

Count: integrated whole in the situation of reference

Mass: not an integrated whole in a minimal situation of reference

General observation (e.g. Chierchia 1998a, b):

The distinction between singular count, mass, and plural nouns does not strictly go along with an ontological distinction among different sorts of entities.

[1] Singular count NPs may refer to the very same thing as definite plural or mass NPs:

(2) a. the collection of papers on this desk – the papers on this desk

 b. the amount of alcohol - the alcohol

 c. the quantity of liquid in the container – the liquid in the container

Resort to accidental integrity or merely conceived integrity?

[2] Languages may make a choice of mass as opposed to count without there being grounds for a perceptual difference: *rice – oats*, *corn – peas*, *cattle – horses*.

[3] Object mass nouns: mass nouns that appear to stand for pluralities of well-individuated objects, e.g. *hardware, jewelry, luggage, furniture, staff*, *police force*

Object mass nouns often come with apparent co-extensional plural nouns in the same language:

(3) a. clothes – clothing

 b. policemen – police force

 c. cows – cattle

 d. carpets – carpeting

[4] Number-neutral nouns in classifier languages (e.g. Chinese)

Chinese nouns lack a mass-count distinction and are considered number-neutral, requiring numeral classifiers for numerals to be applicable.

English has something close to classifier constructions with mass nouns:

(4) a. two pieces of cattle / \* two cattle

 b. two liter milk / \* two milk

Major problem for ontological approaches to the content of the mass-count distinction!

In Rothstein’s (2010) words: ‘While the mass-count distinction is clearly influenced by the structure of matter, it is not taken over from it’.

Present view:

The semantic mass-count distinction involves a primitive notion of unity:

Count nouns select entities with the feature of unity; mass nouns select entities without the feature of unity.

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**3. Part-Structure-Sensitive Semantic selection**

**3.1. Standard cases of semantic selection (‘category mistakes’)**

Examples: *start* applies only to events, not material objects

But start allows for accommodation, shifting an event to a closely related object (participant):

(5) a. John started reading the book.

 b. John started the book.

**3.2. Part-structure-sensitive semantic selection**

No accommodation possible for part-structure-sensitive semantic selection

**[1] The Accessibility Requirement (Moltmann 1997, 1998)**

(6) The Accessibility Requirement

 Predicates or readings of predicates making reference to the parts, but not the whole, of

 an argument are true or false only of something that does not have unity.

*Count*-type and *compare* -type predicates:

(7) a. The students are ten.

 b. ??? The class is ten.

(8) a. John enumerated the orchestra members.

 b. ??? John enumerated the orchestra.

(9) a. John ranked the students.

 b. ??? John ranked the class.

(10) a. John compared the students.

 b. ??? John compared the class.

 c. ??? John compared the collection of papers / the amount of papers on my desk.

Distributive readings:

(11) a. John evaluated the class. (no distributive reading)

 b. John evaluated the students.

The Accessibility Requirement excludes predicates making reference not just to the parts, but also to the whole:

(12) a. John organized the collection of paper on the desk.

 b. John divided the collection

 c. John restructured the committee.

The modifier *whole* (Moltmann 1997, 2005)

*Whole* changes the perspective of an entity from being a unit to being a mere plurality of parts

(13) a. John enumerated the whole class.

 b. ??? John enumerated the class.

(14) a. The whole art collection is expensive. (distributive reading available)

 b. The art collection is expensive. (only collective reading)

**[2] Strictly distributive predicates: predicates of size and shape**

Resistance of predicates of shape and size to apply a plurality or quantity as a whole (Moltmann 2004, 2017, Rothstein 2010, Schwarzschild 2011):

(15) a. The children are big.

 b. The people are long.

 c. The furniture is large.

Not so for predicates of weight:

(16) The furniture is heavy.

Predicates of shape and size apply distributively to object mass nouns, targeting the objects that make up their denotations:

(17) a. The luggage is small.

 b. The furniture is round.

 c. The jewelry is big.

Predicates whose content pertains to the individuation of ordinary objects (size, shape as opposed weight) ignore the language-driven ontology of pluralities and quantities.

Thus, the ontology of ordinary objects remains accessible for part-structure-sensitive readings of certain predicates.

**[3] The Plurality Requirement (‘the Integrated Parts Requirement’ in Moltmann 1997)**

*Count*-type predicates target not natural units per se, but only natural units distinguished as such by the use of a count expression:

(18) a. \* ten wood / ten pieces of wood

 b. \* ten furniture / ten pieces of furniture

(19) a. ?? John counted the luggage.

 b. John counted the pieces of luggage.

(20) a. ?? John counted the art.

 b. ? John counted the artwork.

 c. John counted the works of art.

*Count*-type predicates differ from predicates of size and shape in not being able to apply to object mass nouns. *Count*-type predicates can target only linguistically selected units.

Unlike *compare*-type predicates, *count*-type predicates cannot apply to contextually individuated subgroups:

(21) a. John counted the students.

 b. John compared the students (in the different classes).

(22) a. John compared the jewelry of the women.

 b. ??? John counted the jewelry of the women.

(23) The Plurality Requirement

 *Count*-type predicates can be true or false only of pluralities of entities that have unity (at

 the level of the language-driven ontology).

Accommodation cannot rescue a violation of the Plurality Requirement. No effort of accommodation makes a mass NP acceptable with a *count*-type predicate, not even one headed by an object mass noun.

*Compare*-type predicates can take into account contextual divisions of pluralities or quantities into subpluralities or subquantities.

*Count*-type predicates cannot relate to such divisions since pluralities and quantities do not have unity (count as ‘one’), even though they may be integrated wholes in the context.

‘*Configurations*’:

Pluralities and quantities that are structures into supluralities and subquantities.

Only *compare*-type predicates not *count*-type predicates can apply to configurations, taking into account their particular structure.

Semantic importance of configurations:

The modifier *individual* has the function of setting up a configuration in which a plurality is divided just into its individual members:

(24) John compared the individual students.

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**4. The status of the language-driven ontology**

**4. 1. How to understand the language-driven ontology?**

There are three options:

[1] The language-driven ontology is situated at a merely conceptual level (and thus another level of syntactic representation), as opposed to the ontology of ordinary objects.

[2] The language-driven ontology involves fictions based on the real.

[3] The language-driven ontology is an ontology of the actual, but based on mind- or language-dependent selection, and thus is perspectival.

[3] is the present view.

**4.2. The language-driven ontology of pleonastic entities (Schiffer 1996)**

Pleonastic entities:

Entities that are referents of referential NPs introduced by what Schiffer (1996) calls ‘something-from-nothing’ transformations.

E.g. properties as pleonastic entities are introduced by transformations of the sort

*John is happy* 🡪 *John has the property of happiness*.

There is nothing more to properties than what can be derived from such term-introducing inferences. In that sense properties are language-driven or pleonastic entities.

Schiffer (1996):

Pleonastic entities are ‘language-created, language-independent’ entities.

They are made available for thought and linguistic reference by the use of certain object-introducing linguistic devices (*the property of being happy*), yet on the basis of language-independent conditions actually obtaining (John’s being happy).

Connection to the mass-count distinction:

Language-driven countability sides with pleonastic entities:

Countability is made available by the use of particular linguistic devices (count category, numeral classifiers). But as with pleonastic entities, this need not mean that the unity of objects of reference is in fact language-dependent (or ‘fictional’); rather it is selected among the various conditions of unity that entities in fact have.

In that sense, the language-driven ontology of parts and whole is language-created (or better language-selected), yet language-independent.

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