

autumn 2006/7

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## **Seminar Semantic Structure and Ontological Structure: Tropes and their Role in the Semantics of Natural Language**

### **Handout 4: Tropes, Individuals, and Universals**

#### **1. Four-category ontology**

secondary substances (kinds) -- characterized by -- qualities (attributes)

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instantiated by

instantiated by

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(primary) substances (objects) -- characterized by -- accidents (modes)

other terms for the two kinds of universals:

sortal universals vs. characterizing universals

#### **Aristotle:**

(primary) substance: ontologically independent

secondary substance:

- existence-dependent on primary substances
- inheritance of properties from primary substance

accidents: existence and identity dependent on substance

secondary substances, qualities, accidents: predicables (P is 'in' o)

substances: nonpredicables

**Lowe:**

An object o exemplifies an attribute A:

- occurrently: if there is a mode m with bearer o and m instantiates A
- dispositionally: if there is a kind k with o as an instance and k is characterized by A

**The relation of bearing a property or being subject of predication:**

objects: property bearers, but are not 'borne' themselves

kinds: property bearers, but only derivatively: if a kind has P, then all its instances have P)

attributes, modes: predicables: are 'borne'

Are attributes and modes property bearers? Perhaps not: perhaps no genuine second-order properties (only 'formal' higher-order properties: Armstrong)

**Lowe's differentiations of the four categories in terms of ontological dependencies:**

**weak ontological dependence:**

- Kinds are non-rigidly existence-dependent on individuals:

k non-rigidly (existence)depends on the ys iff for some F, the ys are the F and, necessarily: k exists only if there is some x which is an F

- Attributes are non-rigidly existence-dependent on modes

**strong ontological dependence :**

- Accidents are identity-dependent on individuals:

Necessarily, t and t' are identical only if the individuals that are the bearers of t and t' are identical.

- Kinds are identity-dependent on attributes:

Necessarily, kinds k and k' are identical only if the attributes that characterize them are identical.

**other points:**

kinds: not real entities, as immanent universals are just 'ways' things are

modes: perhaps indeterminate identity conditions

Objects, besides being property bearers, have determinate identity conditions.

general feature of Lowe's view:

Relational ontological characterization of categories, based on ontological intuitions about what there is and about fundamental relations among beings.

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## 2. The 'Linguistically Motivated' Ontology

### 2.1. Recalling the categories:

kinds of individuals ----- kinds of tropes

individuals ----- tropes

conceptual entities: facts, states, propositions

### 2.2. Why the distinction between two kinds of universals?

semantic motivations:

- the semantics of nominalizations:

*wisdom – the wisdom of Socrates*

*men – that man*

*water – the water in the pool*

- differences between adjectives and nouns as predicates (*John is dancer vs John is a dancer*)

ontological motivations (Lowe):

greenness: in what way does the property play a role in the world: not because of the role of objects that are green, but because of the role of entities like the greenness of the apple etc. It is the

greenness of the apple that plays a causal role, and in particular a role in perception.

the role of kinds: determine the dispositional behaviour of objects

### **relations among categories:**

kinds of individuals / tropes:

non-rigidly existence-dependent on individuals / tropes

linguistic reflection:

(1) a. Wisdom exists.

b. Black swans exist.

(2) a. The property of wisdom exists.

b. The property of being a white swan exists.

### **2.3. Being a bearer of properties**

individuals, tropes: property bearers

kinds: not property bearers: inherit properties from their instances:

(3) a. Wisdom is admirable.

b. John found wisdom.

c. John needs wisdom.

d. Wisdom is rare.

### **Refinement:**

a potential problem: Kinds can have properties such as:

- the property of being rare, of being extinct.
- the property of being a kind
- the property of not being an object
- the property of not having any property (B. Schnieder 2006)

But: distinctions need to be made among different sorts of properties:

[1] intensional view of properties

property is whatever the content of a predicate may be

property if whatever an explicit property referring term may define

[2] causal nomological view of properties

properties play a causal role in the world; they figure in natural laws

not the same distinction as that between abundant and sparse properties

determinable properties may correlate with a range of determinate properties that will play a causal role

formal vs. real properties:

properties like that of being a kind play no causal role in the world, have no 'being' in the world: they are 'formal properties' (Lowe)

logically complex properties vs irreducible predicables:

Properties like that of being rare, of not having certain properties are not properties in the sense that they are eliminable in favour of quantification and other properties or relations.

## 2.4. Objects vs nonobjects

dealing with the 'nonobject' status of kinds:

- not being bearer of nonformal properties
- not being 'one', but 'many' or rather 'any' (modal quantifier)

plurals:

not generally bearers of properties:

*The children are big.*

one approach to plurals:

not reference to a single object – a plurality; a group, a sum, but multiple simultaneous reference the individuals

account of collective predicates (*the children gathered*) needed: individual participation in events ?

kinds: multiple simultaneous reference to possible tropes ?

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### 3. Reducing Universals to Tropes

Williams: universals as collections of resembling / exactly similar tropes

→ trope nominalism

replace by collection of possible tropes?

- Needed to prevent identification of any two properties with empty extensions
- Needed to account for universals in modal contexts
- but not needed to prevent identification of two coextensional properties: tropes will already distinguish them

other nominalist approaches: resemblance nominalism:

Universals are classes of resembling possible individuals (Rodriguez-Pereyra)

What to do about the distinction between the two kinds of universals?

Aristotle: substantial forms – another sort of trope: the womanhood of Mary ...

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### 4. Reducing Individuals to Tropes

Williams: individuals are bundles of compresent / collocated tropes

‘bundles’: for Williams in fact: sums of tropes

for others: sets of tropes

insufficient: what is it that ‘glues’ tropes together to make an individual?

location?

But: most properties of individuals are not properties of locations!

### **Further problems:**

#### 1. How to account for the ontological dependence of tropes on individuals?

‘Two tropes are distinct if their individuals bearers are distinct.’

Now: ‘Tropes are distinct if they belong to different bundles’

But why can’t a trope change bundles? – Because a trope is now ontologically dependent on all the other tropes in the bundle

#### 2. How to distinguish parthood from bearing tropes

#### 3. How to make sense of predication:

‘Property is true of an individual’ means: collection of tropes is true of a bundle of tropes.

This can only mean: collection overlaps with the bundle

But then predication is symmetric!

Could there be a bundle of tropes that is both a universal and a particular? E.g. the one containing god’s divinity?

#### 4. Distinction between essential and accidental tropes

Simons: distinguish between nucleus of an individual as a bundle of tropes (contains tropes instantiating essential properties) and shell: contains tropes instantiating accidental properties

#### 5. What to do about relational properties?

What bundle(s) do relational tropes belong to?

Bacon: distinguish between different compresence relations: 1-compresence for properties, 2-compresence for 2-place relations,

Individuals as chains of compresence equivalence relations

