

autumn 2006/7

Friederike Moltmann

handout 2

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

Handout 2:

Tropes and Related Entities, Reference to Tropes

1. Tropes and Related Entities: States of Affairs, Facts, Events

1.1. Some general observations about natural language terms

explicit trope descriptions: NP's ADJ-ness (-ity,...) *John's happiness*

explicit fact descriptions: *the fact John likes Mary*

explicit state descriptions (*the state of*) *John's liking Mary*

general tropes sortals: *quality, behaviour, virtue, vice*

general fact sortal: *fact(s)*

general state sortal: *state(s)*

tropes with facts / states / states of affairs as bearers:

(1) the unexpectedness of the fact that Mary has been robbed

tropes with propositions as bearers

(2) the truth of the proposition that S

a fact as the truth of a proposition → as a trope with a proposition as bearer

other propositional tropes (if there are propositions):

(3) a. the fact that Mary likes Bill

b. the possibility that Mary likes Bill

c. the belief that Mary likes Bill.

nonrelational tropes with propositions as bearers

or:

the propositional constituents qua relating in the ‘fact-way / the possibility-way/the belief-way (Moltmann ‘Propositional Attitudes without Propositions 2003)

or: the fact-way / possibility-way / belief-way relation among the propositional constituents

1.2. Tropes and States of Affairs

1.2.1. States of affairs, facts: two traditions

1. facts as primitives, as what true sentences describe, as what makes sentences true

Logical atomism (Russell, early Wittgenstein), Armstrong (‘states of affairs’)

2. facts as what is constituted by true sentences

the fact that S, for any true S

differences:

2: for all distinct true propositions there are distinct facts / obtaining states of affairs

1: for all distinct true atomic propositions distinct facts

disjunctions: true sentence described as least one fact

existential quantification: true sentence described as least one fact

universal quantification: Russell: distinctive ‘generality’ fact

1.2.2. Tropes vs states of affairs / facts as referents of NL terms

the main differences between tropes and facts / states / states of affairs:

1. concrete-abstract

tropes if their bearers are concrete act as

- objects of perception
- relata of causal relations
- entities located in space and time

facts / states / states of affairs:

- not objects of perception
- not relata of causal relation, but of causal explanations (Steward)
- not located in space and time (though states located in time)

2. description-‘dependence’

tropes:

- generally have internal structure below the description used to refer to them
- can in principle be described in various different ways

the redness of the apple = the intense redness of the apple

facts / states / states of affairs:

- are constituted by the propositional meaning of the complex term used to refer to them
- the fact that the apple is red \neq the fact that the apple is intensely red

3. bearer uniqueness

tropes as referent of explicit trope referring terms may not have a unique bearer:

the sharpness of the knife = the sharpness of the blade of the knife

the redness of the sweater = the redness of the wool of the sweater

the fact that the knife is sharp, the fact that the blade is sharp

the fact that the sweater is red, the fact that the wool of the sweater is red

4. part-whole structure

tropes:

have part-whole structure, internal structure

facts / states / states of affairs:

no internal structure, no part-whole structure

linguistic indications:

(4) a. all of Mary’s happiness / talent / comfort / beauty

- b. * all of the fact that Mary likes bill – namely Mary, Bill and the liking relation

(5) a. Mary’s happiness exceeds Bill’s.

- b. * the fact that Mary likes Bill exceeds the fact that Mary is tall.

→ the ‘constituents’ of facts and states of affairs are not treated as parts!

other trope-referring terms:

the quality of the paper

the degree of Mary’s happiness

the extent of John’s anger

the number of the planets (!)

the personal relation between John and Mary

the difference between John and Mary

the diplomatic relations among the countries

more generally: abstract N + referential complement → trope-referring term

What does the ontological difference between tropes and facts / states/ states of affairs reside in?

1. facts / states may be constituted by determinable, non-specific, quantificational properties; tropes must be grounded in instances of natural (sparse) properties

the problem:

even then the nature of a trope could be made explicit by a fact description, but it stays a fact, and is not a trope

2. Steward's proposal: 'Secret Life Requirement' (Helen Steward 'The Ontology of Mind, 1987): Events / tropes may have a description that the relevant agent may not be aware of; states have a canonical description constituting them.

the problem: difference seems epistemological, not ontological in nature

most plausible view:

facts / states of affairs are constituted by the content of a canonical description

tropes being a primitive, are describable in different possible ways

remaining problem:

Why do propositional constituents not act as parts of facts / states / states of affairs?

1.3. Tropes vs. qua objects (again)

qua object: John qua being a father

trope: John's fatherhood

(6) a. John is admirable as a father, but not as a colleague

b. John as a father is admirable.

(7) a. John is young as a father

b. John is not young as a highschool student.

John as a father is young.

Qua objects as entities derived from objects and properties:

(i) A qua object o qua P exists in w at t iff o is P in w at t

(ii) A qua object o qua P is identical to a qua object o' qua P' iff $o = o'$, $P = P'$.

(iii) A qua object o qua P that exists at w and t has a property Q iff Q holds of o at w and t and Q's holding of o at w and t is based on o being P.

What distinguishes a qua object from a trope?

ontological 'focus':

trope: focus on the property

qua object: focus on the bearer

alternative view:

qua object obtained from an object and a trope: o qua bearing t

Do qua objects display the same ontological possibilities as tropes?

complex properties:

John as father and as a teacher.

collections as base:

John and a Mary as a couple

relational qua objects:

John as an admirer of Mozart: inheritance of one-place properties (of John)

better:

(8) a. John and Mary as man and wife:

b. John and Mary as employer and employee

c. John and Mary as a loving couple

inheritance of collective properties, relational properties

higher-order qua objects

perhaps not possible: only multiple property specifications possible

John qua a person qua a father

By contrast: *the unexpectedness of the success of Mary* vs *the unexpected success of Mary*

1.4. Tropes and Events

1.4.1. Ontological parallels between tropes and events

1. particulars (as opposed to universals)
2. generally concrete: in space and time, causal relata, perceivable
3. internal structure, fully specific (on Davidson's account, but not on Kim's)

(9) a. John described Mary's walk.

b. John compared Mary's walk to Sue's walk.

(10) all of the war took place in two cities

4. mereology of events, mereology of tropes

5. apparent lack of bearer uniqueness

(11) a. the sharpening of the knife = the sharpening of the blade of the knife.

b. the dyeing of the sweater = the dyeing of the wool of the sweater.

6. inheritance of part structure?

Part structure of events corresponds to part structure of object:

the eating of the apple, the eating of the apples

Does the part structure of a trope corresponds to the part structure of the bearer (with suitable predicates)?

the redness of the apple

the quality of the surface is uneven

?? *the rednesses of the apples, the qualities of the objects, the beauties of the women*

Ok *the redness of the apples, the quality of the objects, the beauty of the women*

1.4.2. Semantic parallels between tropes and events

1. introduced by predicates

2. arguments of modifiers (adjectival: tropes, adverbial: events)

3. referents of nominalizations

4. extended Davidsonian semantics seems applicable to tropes as to events:

events as implicit arguments of verbs, tropes as implicit arguments of adjectives

adverbials as predicates of events, adjective modifiers as predicates of tropes

some differences between events and tropes:

(12) a. the property of being active

b. * the property of acting

(13) a. * the activity of being active

b. the activity of acting

1.4.3. tropes as an ontological category comprising events -- a widespread view

three possibilities:**1. events as tropes involving a complex property**

events as tropes based on a ‘dynamic property’:

the property being P at t and Q at t’, for subsequent times t and t’ and contrary properties P and Q

How does this fare with our ‘linguistic’ intuitions?

(14) a. John’s happiness and subsequent unhappiness

b. John’s loss of happiness

c. John’s becoming unhappy

the problem:

Tropes do not inherit their internal structure from the complexity of a property.

2. events as collections of ‘tensed’ tropes

the collection of two tropes with the same bearer one involving ‘being P at t’ and one involving ‘being Q at t’ for contrary properties P and Q

3. events as transitions among tropes

Mertz (1996): Events are relational tropes: instantiations of temporal or causal relations in two or more tropes.

John’s becoming unhappy: the transition of John’s being happy to John’s being unhappy

John’s killing of Bill: The causation of Bill’s being dead by John’s act

further differences between events tropes: comparative contexts

2. Trope Reference**2.1. NL predicates and tropes**

NL predicates: concepts expressed

1. determinable
2. unspecific
3. quantificational (existential quantification)
4. disjunctive

observation:

Tropes referred to with predicates however determinable, unspecific, quantificational are always maximally specific

- can be compared, described, etc in maximal specificity

2.2. question: Is this all there is to tropes?**case 1: determinate – determinables:**

Do the following refer to identical tropes?

(15) a. the redness of the apple

b. the color of the apple

(16) a. the form of the figure

b. the rectangularity of the figure

tests:

(17) a. The redness of apple 1 is the same as the redness of apple 2.

b. The color of apple 1 is the same as the color of apple 2.

(18) a. The form of figure 1 is better than the form of figure 2.

b. The rectangularity of figure 1 is better than the rectangularity of figure 2.

nominalizations give rise to different contextual restrictions of the predicate (comparison class)

case 2: polar adjectives:

Do the following terms refer to identical tropes, supposing they both refer?

(19) a. John's weakness

b. John's strength

(20) a. the darkness of the room

b. the lightness of the room

the crucial intuitions:

the occasion: analyse comparatives without using degrees:

(21) a. John is happier than Mary.

b. John's happiness exceeds Mary's happiness.

(22) a. The cellar is darker than the kitchen.

b. The darkness of the cellar exceeds the darkness of the kitchen.

The paraphrase seems correct, but this *despite* the standard view of tropes as entities with various sorts of property dimensions.

(22b) cannot be read as:

(23) The cellar's exceeds the darkness of the kitchen

- because the cellar is larger than the kitchen

- because the cellar has been darker for longer than the kitchen

- because the cellar's darkness is more typical / expected / desired than the darkness of the kitchen.

→ single reading of the *exceed*-predicate

the case of polar adjectives:

(24) a. John is stronger than Mary.

b. John's strength exceeds Mary's strength.

(25) a. Mary is weaker than John.

b. Mary's weakness exceeds the weakness of John.

Suppose John is kind of weak and also John is kind of strong, i.e.

John's weakness = John's strength, and so for Mary:

(26) a. John's strength exceeds Mary's strength.

b. Mary's weakness exceeds John's weakness.

c. John's weakness is John's strength.

d. Mary's weakness = Mary's strength.

e. John's weakness exceeds Mary's weakness.

same behaviour of adjectives of intensity:

(27) John's strength is great.

Mary's strength is negligible.

John's strength exceeds Mary's strength.

(28) Mary's weakness is great.

John's weakness is negligible.

Mary's weakness exceeds John's weakness.

conclusions:

Adjective nominalization

- restricts trope to one dimension of comparison with 'exceed': the extent to which the property is instantiated
- gives direction of comparison: orders tropes with respect to the extent to which they instantiate the property in question.

possible ways of accounting for this:

not reference to standard tropes, but reference to either relational tropes or qua objects:

1. relational tropes:

Mary's weakness: the instantiation of 'weak' in the physical condition of Mary

Mary's strength: the instantiation of 'strong' in the physical condition of Mary

But what is a greater / better instantiation of a property than another?

2. qua objects:

Mary's weakness: Mary's physical condition qua being a weakness

Mary's strength: Mary's physical condition qua being a strength

allows explanation of the application of exceed-relation (property inheritance for qua objects)

events:

not a single exceed-relation applies:

(29) a. John's walk exceeds Mary's walk.

b. John's eating of the apple exceeded Mary's eating of the apple.

also fewer restrictions on comparative relations:

(30) a. John walks like Mary does.

b. John is happy like Mary is.

German:

(31) a. Hans ist so talentiert wie Maria.

'John is talented as Mary'

b. Hans hat so gelacht wie Maria.

'John has laughed like Mary did / as much as Mary did.'

speculation:

Events by their nature focus on temporal / causal relation among tropes.

Tropes as referents of NL terms focus on being instances of the concept in question.

not more than one ontological focus possible

