Advanced Course *Minor Entities*

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Handout 6

Tropes, Events, States, and Facts and Truthmakers

1. Two notions of fact

[1] Facts as entities in the world, as entities based on things going on in the world

Facts as parts of the world

Facts as truth makers

Logical atomism:

The world as consisting in facts

(1) The world is everything that is the case. (Wittgenstein)

The same fact can make S as well as S v S true

The same fact can make Pa and ∃x Px true

- no disjunctive facts

- no existentially quantified facts

universally quantified facts?

Russell: yes 'allness facts'

Reference to facts in natural language: *The fact that* S

Properties:

- Not in space and time

- No internal structure, measurable extent

- Not object of perception

- Objects of epistemic, emotive attitudes

Disjunctive facts:

(2) a. John is happy about the fact that Mary is invited

b. John is happy about the fact that Mary or Sue is invited.

Existentially quantified facts:

(3) a. John is happy that Sue will accompany him.

b. John is happy that someone will accompany him.

(4) a. John is happy that a and b and c came.

b. John is happy that everyone who was invited came.

[2] Facts based on true propositions or true sentences

Facts as entities 'at' the world

1-1 correspondence between true propositions and facts

Facts vs propositions:

(5) a. John believes the proposition that p.

b. John believes the fact that p.

(6) a. John noticed the fact that o.

b. John noticed the proposition that p.

Facts as abstractions from true propositions:

A 'Kimean' account of factsùù

(7) a. For a proposition p = <P, a, t>, the fact that p exists iff p is true.

b. For true propositions p = <P, a, t>, q = <Q, b, t'>,

the fact p = the fact that q iff P = Q, a, = b, t = t'

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2. A further role of tropes, events, states: truth makers

2.1. The truth making idea

If a sentence / proposition is true, it is in virtue of something in the world that makes it true.

If e is a truthmaker of S/p, then e's existence implies the truth of S/p.

Truth makers of simple sentences

(8) a. John is happy

    b. John walks.

(9) a. Someone is happy.

    b. Someone walks.

(10) a. John or Mary is happy.

    b. John or Mary walks.

Standard view about truth making:

(11) a. s |= p v q iff s |= p or s |= q

    b. s |= ∃x p if for some d ∈ D, s |= p(x/d)

    c. s |= p & q iff for some s', s'': s = s' v s'' and s' |= p and s'' |= q

Truthmakers:

- the situation s in which John is happy / walks (and nothing not sufficiently involved in that is the case in s)

- the fact that John is happy /walks

- the state of John's being happy / walking.

- John's happiness (trope), John's walk (event)

quantification:

(12) Finally everyone is happy.

truthmaker for corresponding conjunction 'a is happy and b is happy and c is happy …' plus 'allness condition': 'everyone in the domain is either a or b or c …' (Armstrong)

using tropes or events:

fusion of two entities: 1.event, trope 2. higher-level trope:

instantiation of: the property of being an e such that the bearers of e make up the relevant (restricted) domain D

2. 2. Possible application of truth-making to the semantics of adverbials and nominalizations

2. 2.1. The constructional meaning of adverbial modification with truth-making:

(13) a. John walks slowly.

b. ∃s (s|= John walks & slowly(s))

adverbials are predicates of events or 'situations', verbs are not

nominalizations:

Davidsonian account:

(14) a. [*John's slow walk*] = sum e[walk(e, John) & slow(e)]

truthmaker account:

(14) b. sum s[s |= John walks & slow(s)]

stacked adverbials:

(15) a. John carefully opened the book with both hands.

the problem for the Davidsonian account:

Adverbials will generally need to have two argument positions for events.

(15) a'. ∃ e ∃e'(careful(e) & with both hands(e, e') & open(e', John, the book))

the truthmaker account:

(15) a''. ∃s (careful(s) & s |= *John opened the book with both hands*)

s |= *John opened the book with both hands* iff ∃s' (s |= <'with both hands', s'> &

s' |= *John opened the book*)

adverbs modifiying quantified VPs:

(15) b. John quickly ate all the chips.

The problem for the Davidsonian account:

all will need an additional event argument position:

(15) b'. ∃e (quickly(e) & ALL(e) x   ∃e'(e' < e & eat(e, John, x))

truthmaker account:

(15) b''. ∃s(quickly(s) & s |= *John ate all the chips*)

stacked frequency adverbials:

(16) John sometimes trains frequently:

Sometimes s   s |= *John trains frequently*.

s |= *John trains frequently* iff frequently s' < s s' |= *John trains*.

Some issues for applying truth-making to natural language semantics:

negative truth makers

(17) c. John carefully did not object.

Truth makers of negative sentence:

The fusion of e, e', e'', which do not make 'John objected' true, with the condition that e, e',

e'' are all the relevant entities (fusion with an allness condition) (Armstrong)

falsifiers of sentence without negation (Fine)

different kinds of truth makers:

(17) d. The landscape is extremely beautiful.

truth maker 1: the extreme beauty of the landscape

truth maker 2: the extremeness of the beauty of the landscape

two kinds of verbs allow for nominalizations: 'actions' and 'products' (Twardovksy)

(18) a. John's sleep / sleeping

    b. John knowledge of French / knowing of French

    c. John's belief that p / believing that p

Indeterminate truthmakers?

Truth-making with stative verbs

Two kinds of stative verbs:

concrete state verbs (fully specific states): *sit stand, sleep*

abstract state verbs: *believe, know, own, exist*, *be* + adjective

The stative adverb gap:

Only concrete state verbs, not abstract state verbs allow for location modifiers, manner

modifiers, can act as complements of perception verbs (Maienborn)

(19) a. John stood in front of the mirror.

    b. Mary saw John standing …

(20) a. John knows French / has a beard / is happy / exists in front of a mirror

    b. ?? Mary observed John knowing …

The problem for truthmaking:

Abstract states are not fully specific, are just the holding of a property (non-natural) of an object, thus are abstract and not part of the world.

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3. Situations as truth makers in other contexts

Kratzer and others:

Situations involved in the semantics conditionals

Situations form the domain of adverbs of quantification: *twice, usually, mostly, never*

- Situations as part of the world
- Situations as parts of possible worlds
- A world as maximal sum of compatible situations

The semantics of 'cases':

Lewis:

Adverbs of quantification range over 'cases'.

Wittgenstein:

'The world is everything that is the case.'

A closer look at the semantics of constructions with the noun *case*:

Two main constructions:

[1] 'Predicative' *is the case*:

(21) a. That it is raining is the case.

   b. t is the case that it is raining.

(22) a. That it is raining is true.

   b. The proposition / belief / claim that it is raining / The sentence S is true.

   c. * The proposition / belief / claim that it is raining / The sentence S is the case.

(23) a. What John claimed is something that could not be the case

   b. * John's claim cannot be the case

[2] with clausal attributes:

(24) a. In case it rains, we won't go.

    b. In a case in which it rains, we won't go.

    c. It might rain. In that case, we won't go.

    d. It might rain. It might also snow. In those two cases, we won't go.

    e. In any case, we will go.

(25) a. We discussed the case that we lose the election.

    b. I am prepared for the case that I won't ever return.

German: more explicit

(26) a. Im Fall dass es regnet, werden wir nicht gehen.

    In case that it rains we will not go

  b. Ich waere sehr froh, ueber den Fall dass es regnet.

    I would be happy about the case that it rains

Cases are not possibilities:

(27) a. The possibility that it will rain exists.

    b. ??? The case that it will rain exist.

    c. The case that it will rain may occur.

    d. Der Fall dass es regnet koennte eintreten.

     'The case that it will rain may enter.'

(28) a. The possibility that p exists iff p is possible

    b. The case that p occurs iff p.

facts vs cases:

cases as possible facts

situations vs cases

(29) a. In the situation in which it rains   Factive!

    b. In the case in which it rains   non-factive

    c. In a situation in which it rains   non-factive

is true vs *is the case*:

is true acts a a true predicate of entities, *is the case* does not.

Modals, future: intuitive differences:

(30) a. ?? It will often be true that I forget something.

 b. It will often be the case that I forget something.

Clear difference: contexts of adverbs of quantification:

(31) a. ?? It is sometimes true that someone is absent.

 b. It is sometimes the case that someone is absent

(32) a. ??? It was twice true that someone was absent.

 b. It was twice the case that someone was absent.

Other restrictions on *it is the case*:

(33) a. In some European countries it is still the case that women can wear a burka.

 b. ?? In some European countries it is still true that women can wear a burka.

(34) a. In our firm it is never the case that someone gets fired without explanation.

 b. ??? In our firm it is never true that someone gets fired without explanation.

The case as referring to the truth-making situation:

(35) a. It is the case that S

 b. For the relevant situation s, s |= S.

(36) a. It is sometimes the case that S.

 b. For some situations s, s |= S.

(37) The world is everything that is the case:

The world is the totality of situations making some sentence true…

In the case that S:

The case that S: the possible situation that makes S true

But there may be several such situations!

Better:

The obtaining of S in the possible situation that makes S true.

That is: 'the fact, relative to a possible situation…'

(38) a. It is the case that it will rain.

 b. There is the case that it will rain.