

Approaches to Parts and Wholes in Semantics

Advanced Course

ESLLI 2025 Summer School

Friederike Moltmann

Handout 4

The Priority of the Whole 1: Ordinary Objects and Predicates of Completion

1. The priority of the whole in our ordinary ontology

1.1. Examples

Artifacts

Function and form of parts to be understood only

House – door, window, balcony, chimney

Social objects

University, department faculty, student body

University building: main building, lecture halls, mensa,

Mathematical shapes

Names for parts of mathematical objects

Semicircle – half a circle

Hypotenuse – longest side of a triangle

Fractional amounts

half a liter milk

half a loaf of bread

1.2. What is the notion of priority?

Observation

Parts can exist without wholes:

Balconies, windows, doors, handles, arms, bones etc.

Two notions of ontological dependence

Existence dependence:

x is ontologically dependent on y iff x exists only if y exists.

Identity dependence:

x is ontologically dependent on y

iff the nature of x can only be understood in terms of the nature of y

iff the real definition of y mentions / may mention x.

My view of priority of the whole view

Only some wholes are prior to the parts.

Priority means identity dependence.

Contrast to historical views of monism

Monism:

The only ontologically independent entity is the cosmos.

Spinoza:

Only god is ontologically independent; everything is a trope (particularized property) of god.

2. The priority of the whole with events: plans and planned events

2.1. Plans

2.1.1. Reference to plans

(1) The plan to build a house

Kinds of event plans

Projects, intentions, future-directed dreams, instructions, recipes

Plans as enduring objects

Different existence predicates for different entities

- (2) a. The house still exists.
 - b. ??? The rain still exists.
- (3) a. The rain is still going on.
 - b. ??? The house is still going on.
- (4) a. The accident happened / occurred yesterday.
 - b. ??? The house happened / occurred last year.
- (5) a. An elaborate plan now exists.
 - b. The plan still exists to build a new house.
 - c. The composition / design / exists.
- (6) ??? The plan occurred / never happened.

Have as expressing dependent existence (of plans)

- (7) a. She has a plan to build the house.
 - b. She no longer has the plan to leave.
 - c. * She has (her) building the house.

2.1.2. What are the parts of plans?

Plans as abstract objects

Types of acts naturally act as parts of plans

- (8) To do write an article is part of the plan.

How does a plan look?

Mentions actions, their types and their connections

Mentions participants, agents, etc.

Mentions times and places

Participants as parts?

Times, places as parts?

Plans and their realization

- (9) a. realize a plan / project / dream
 - b. follow an instruction

c. play / perform a composition

2.2. Planned events

Examples: demonstrations, lectures, meetings, dances, competitions, ceremonies, masses

Distinguishing properties of planned events

1. Planned events go only with the existence predicate take place, not happen or *occur*.

- (10) a. The ceremony / demonstration / meeting took place / ?? happened /
 ?? occurred.
 b. The accident happened / occurred / ?? took place.

2. Planned events may allow for predicates of completion.

- (11) a. John completed the ceremony / the project / the dance.
 b. ??? John completed the accident / the hour-long shouting.

3. Planned events allow for predicates of participation.

- (12) a. John took part / participated in the ceremony / the demonstration / the project.
 b. ??? John took part / participated in the accident / the sudden spontaneous shouting.

Comitatives:

- (13) a. John's project / dance / lecture with Mary
 b. ??? John's accident / making noise with Mary

Roles of participants in events

Slots (Bennett 2007)

Slots as parts of plans?

Plans have slots that are specified for participants, are open, or partially specified

2.3. The light noun *part* (PART)

Occurs in predicates of participation

- (14) a. John took part in the ceremony.
 b. The priest was part of the ceremony.

take part in German : *teil-nehmen* ‘part take’,
 in Italian *avere parte*, ‘have part’,
 in French *faire partie* ‘make part’.

PART in predicates of sharing

German *teilen* and French *partager*

Implicit lexical component of English *share* ?

- (15) a. Hans teilte das online Dokument mit uns.
 b. John shared the online document with us.

- (16) a. Maria teilte ihre Erfahrungen.
 b. Mary shared her experiences.

‘Ordinary’ uses of predicates of sharing:

- (17) a. John shared the cake.
 b. John shared the task / the workload among his coworkers.

German *teilhaben* ‘have part’ reserved to conveying the sharing of experiences:

- (18) a. Maria liess uns an ihren Erfahrungen teilhaben.
 ‘Mary let us have part in her experiences.’
 b. ??? Maria liess uns an dem Kuchen teilhaben.
 ‘Mary let us have part in the cake’

The full noun *part*

including those with the ordinary, inflected noun *part*:

- (19) a. The parts of the ceremony all took place in the village center.
 b. The parts of her experience that shocked me most concerned the interrogation.

- (20) a. ??? We had parts in / of the ceremony.
 (meaning: we took part in the ceremony)
 b. ??? We had parts of her experiences.
 (meaning: we were let have part in her experiences)

Ontology

Planned events as compositions, in some sense, of basic events and plans

Fine's (1982, 2022) operation of qua object formation

For a plan p and a basic event e realizing p , the planned event = e qua $\lambda x[x \text{ realizes } p]$ (e/p)

- (21) a. For a plan p and an event e that realizes p ,
the planned event e qua $\lambda x[x \text{ realizes } p]$ (e/p) exists.
- b. For plans p and p' realized by events e and e' respectively, $e/p = e'/p'$ iff $e = e'$ and $p = p'$.

The semantics of *part(s)* and PART

- (22) a. For a planned event e/p , $[\text{PART}](e/p) = \{s \mid s \text{ is a (slot) part of } p\}$
- b. For a planned event e/p , $[\text{parts}](e/p) = \{e' \mid e' < e\}$ ($<$ is the ordinary relation)

Other cases:

- (23) a. Parts of the university are in the city center. (spatial parts)
- b. ?? Parts of the university are its physics and its math department.
(organizational parts)
- c. These buildings / # The physics and the math department are the main parts of the university.
- d. The physics and the math department are part of the university.

Dual part structures for planned events, social objects ?

3. Expressions of completion: *Complete* and *partial*

3.1. The verb *to complete*

- (24) John completed the project, the ceremony, the recitation.

German:

- (25) Hans hat da Project *zuende gefuehrt*.
'John completed the project / lead the project to its end.'
- (26) Hans hat das Projekt *beended*.
'John has terminated the project'

(27) a. Hans hat das Projekt *vervollstaendigt*.

‘He added suitable abstract parts (and realized them).‘

b. Hans hat den Plan *vervollstaendigt*.

‘John added parts to the plan that should have been there’.

(28) a. Maria hat das Gedicht *vollendet*.

‘Mary finished the poem‘ (masterful whole)

b. Das Gedicht blieb *unvollendet*.

‘The poem remained unfinished.‘

3.2. The predicates *complete* and *partial*

Two kinds of completion

1. Partial / full match of a concrete whole that is an original (in the present or the past)

(29) a. partial copy of the paper

b. a complete copy of the paper

(30) a. partial reconstruction of the church

b. complete reconstruction of the church

2. Partial / full manifestation of a merely conceived whole

(31) a. partial realization of the plan

b. complete realization of the plan

(32) a. John partly forgot the poem.

b. John completely forgot the poem.

Complete and *be missing* display the same kinds of interpretations.

Relative to an original

(33) a. The quotation is complete.

b. The quotation is missing a few words.

Relative to an actual whole

(34) a. The collection is complete.

b. After the break-in, the collection is missing a piece.

Relative to a conceived whole (design)

(35) a. The house is complete.

b. The house is only missing the windows.

(36) The meaning of *complete*

For a concrete or abstract whole X and an entity d , $\text{complete}(d, X)$ iff d is a full realization of X .

The meaning of *partial*

Very tricky!

(37) a. a partial house

b. a part of a house

(38) a. a partial portrait of Joe

b. a part of a portrait of Joe

(39) a. a partial copy of the page

b. a part of the copy of the page.

(40) a. a partial realization of the plan

b. a part of the realization of the plane.

(41) Meaning suggestion for *partial*

For a concrete or abstract whole X and an entity d , $\text{partial}(d, X)$ iff d is a realization of part of X and is sort of the same type as X .

In the literature:

Liebesman (2024); partialhood as primitive

Carrara and Lando (2025): partialhood = parthood relative to a possible entity

3.3. Application to partial truth in truthmaker semantics

(42) A sentence S is partly true iff for an exact truthmaker s of S , there is an s' , $s' < s$ and s' is actual.

Intended application:

(43) It is raining and it is cold.

Truthmaker of 'R & C': the fusion of two situations s' and s'' .

‘R & C’ is partly true in case for an exact truthmaker s of ‘R & C’, there is a (conjunctive) part s' of s that is actual.

Truthmaker of ‘R & C’: the fusion of two situations s' and s'' .

(44) John loves Mary:

John loves Mary would be partly true just because John exists!

But if ‘<’ in (42) is understood as partialhood, this may require s' to be of the same type as s , thus it needs to be a situation and cannot just be an object.

3.4. The adverbial *partly*

(45) a. John partly solved the problem.

b. $\exists e \exists E$ (solved(E, John, the problem) & partly(e, E))

Question:

Where does quantification over abstract events come from?

Same as for the progressive?

(46) John was solving the problem.

References

- Bennett, K. (2013): ‘Having a part twice over’. *The Australasian Journal of Philosophy* 91, 83-103.
- Fine, K. (1982): ‘Acts, events and things’, in W. Leinfellner et al. (eds): *Proceedings of the 6th International Wittgenstein Symposium* 8, 97–105, Vienna, Austria: Holder-Pichler-Tempsky.
- Fine, K. (2022): ‘Acts and embodiment’. *Metaphysics* 5 (1), 14–28.