On the Syntax and Semantics of Special Quantifiers

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1. The topic

1. Semantic and syntactic characteristics of special quantifiers

2. The most common approaches to the semantics of special quantifiers pursued by philosophers: substitutional and higher-order approaches

3. Generalizations that present serious problems for such approaches

4. The alternative: the Nominalization Theory of special quantifiers

5. Sketch of a syntactic and semantic analysis of special quantifier sentences within the Nominalization Theory

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2. The syntactic and semantic characteristics of special quantifiers

2.1. Special quantifiers

In English

Something, everything, nothing, much, a lot, several things, one thing, two things

Special pronouns

That, what

Non-special quantifiers

Some thing, every thing, some object, some entity

Non-special pronouns

It, them, which

Special quantifiers in German

Alles 'everything', *nichts* 'nothing', *viel* 'much', *wenig* 'little', *etwas 'something'*, *eines* 'one thing', *mehrere Dinge* 'several things', *das* 'that', *was* 'what'

Special quantifiers in French

Tout, rien, beaucoup, peu, quelque chose, une chose, plusieurs choses, le, ça, (ce) que

The special noun *word*

Word-NPs as complements of verbs of saying, in place of clausal complements or direct quotes (*the word 'help', only a single words, a few words*)

2. 2. Semantic characteristic of special quantifiers

Special quantifiers (and pronouns) can replace various sorts of nonreferential complements without giving rise to the *Substitution Problem* or the *Objectivization Effect* (also called *Prior's Problem*) (Moltmann 2003a, b, 2013).

Clausal complements

(1) a. John thought that he won the race.

   b. ??? John thought a thing / a proposition.

   c. John thought something.

(2) a. John said that he won the race.

    b. ??? John said a thing / an utterance / a proposition.

    c. John said only one thing.

    d. John a few words.

Predicative complements (of copula verbs)

(3) a. Mary is / remained / became happy.

    b. ??? Mary is / remained / became a property.

    c. Mary is / remained / became something enviable.

DP complements of intensional transitive verbs

(4) a. John needs at least two assistants.

    b. ??? John needs a quantifier / a property / an entity.

    c. John needs something.

Direct quotes as complements

(5) a. John said 'great'.

    b. ??? John said the adjective 'great' / some expression.

c. John said something.

d. John said the word 'help' / just a single word.

<u>Complements of measure verbs</u>

(6) a. John weighs 100 kilo.

   b. ??? John weighs an entity / a degree / a measurement.

   c. John weighs something,

<u>Complements of *do* (VPs)</u>

(7) a. John did something, walk around the house.

   b. ??? John did an event and action.

2.3. Special quantifiers replacing plural and mass DPs in referential argument position

2.3.1. Definite plural and mass DPs

(8) a. John counted the peas / ??? the sum / collection / set of the peas.

   b. John counted something, the peas.

(9) a. John cannot distinguish the kittens / ??? the group / sum of the kittens.

   b. What John cannot distinguish are the kittens.

(10) a. John collected something, the wood.

   b. ??? John collected the sum / collection / amount of wood.

2.3.2. Bare plurals and mass nouns as kind terms

(11) a. John ate various things today, beans, peas, apples, and carrots.

   b. ??? John ate various kinds today, beans, peas, apples, and carrots.

2.3.3. Simple number words (Moltmann 2013)

(12) a. Two and two is four.

   b. What is two and two?

   c. ??? Which number is two and two.

(13) a. John added two to ten.

   b. John added something to ten.

   c. ??? John added the number four to tent.

3.4. Other potential special noun constructions

'Second-order' nouns (Williams 1983)

Size, quality, weight as head of predicative complements

(14) The door is the same size, height, weight as the other door.

Cognate objects (Moltmann 2013)

 (15) Mary thought a thought, screamed a scream …

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3. On the syntax of special quantifiers

3.1. Special quantifiers with *-thing* are distinct from quantifiers with the ordinary noun *thing*

1. *–thing* is a bound morpheme

(16) a. John is some thing. (false)

    b. John is something. (true)

2. Position of adjectival modifiers

(17) a. John said something nice.

    b. ??? John said some nice thing.

3. Absolutely unrestricted quantification

(18) Everything there is exists.

Meaning of the ordinary noun *thing*

Primary meaning: material objects and artifacts

Syntactic structure of special quantifiers (Kayne 2005, Moltmann 2022)

Combination quantifier/pronoun- light noun *thing* (overt or silent)

A lot: a lot ~~thing~~   *what*: what-~~thing~~   *whatever*: what-~~thing~~ – ever

Other light quantifiers

Everybody, someplace, sometime.

-body, -place, and *-time* as overt versions of the light nouns PERSON, PLACE, and TIME (Kayne 2005).

Kayne (2010): *where*-PLACE, similar, *there*-PLACE, *what*-THING, *that*-THING, *when*-TIME

<u>Features of light nouns</u>

- Can remain silent without there being an antecedent.

- Belong to the functional, rather than the lexical part of grammar

- Form a universal inventory

- Special movement properties (licences PP somewhere)

- Syntactic features strictly semantically determined (gender features, mass-count distinction)

<u>Light nouns as part of compounds:</u>

Moltmann (2022): Proper names are compounds of a name and a light noun:

John-PERSON, *Berlin*-PLACE, France-PLACE *Sanssouci*-HOUSE, *Notre Dame*-HOUSE, *2022*-TIME, *two*-THING

PERSON, HOUSE are count, TIME, PLACE, THING are mass.

Therefore, *Berlin, France, 2022*, and *two* are treated as mass nouns in German.

3.2. Mass and count uses of special quantifiers

<u>Mass and neutral uses of *–thing*</u>

(19) a. John ate something, an apple.

    b. John ate something, brown rice.

(20) Mary needs something nice, bath salts / chocolate / an art book.

(21) a. John ate something, the cookies.

    b. I brought you something, a cup, a plate, and a fork.

(22) What did John evaluate? The paintings / the art / the proposal.

(23) There is something John is unable to count, namely the grains of sand.

<u>Count uses of *–thing* (Moltmann 2016, 2022, Sainsbury 2018)</u>

(24) a. There are two things John does not like, the beans and the bread.

  b. John has evaluated several things: the paintings, the sculptures, and the drawings.

    (distributive reading)

  c. There are several things John cannot distinguish: the cups, the glasses, and the plates.

    (collective, 'internal' readings)

3.3. Special quantification as non-nominal quantification?

<u>A common philosophers' view</u>

Special quantifiers are non-nominal quantifiers.

<u>Not to be understood syntactically</u>

Special quantifiers *something, everthing* etc are nominal!

E.g. they require case (not assigned by adjectives or nouns):

(25) a. John is happy that he won / * something.

    b. the proof that he won / * something

They can appear after prepositions:

(26) John is happy about something / * that he won.

They cannot be extraposed:

(27) It is true that John won / * something.

The morpheme *thing (-things)* is nominal.

<u>Better candidates for syntactically non-nominal quantifiers</u>

Philosophers' favorite example: *somehow*

But adverbial quantifiers of this sort are highly restricted:

(28) a. * everyhow, * nohow

    b. in every way, in no way (nominal!)

Other adverbial quantifiers:

(29) a. sometime, *everytime, *notime,

    b. always, never

    c. somewhere, everywhere, nowhere

Difference in accepting restrictions (see below)

(30) *somehow unusual, ok somewhere nice, ok always when it rains

The quantifiers in (30b, c) are more likely nominal quantifiers (with silent preposition, cf. Kayne 2010).

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4. Substitutional and higher-order approaches to special quantifiers

4.1. The substitutional approach

The substitutional analysis (Sainsbury 2018)

(31) 'X is V-ing something' is true iff something of the form 'X is Ving – ' is a

true vindicating instance.

Dealing with standard problems for substitutional quantification

Instead of quantifying over expressions, quantification over concepts, in extended range, as

well as over objects themselves.

How the analysis applies

Quantification over

- predicates or predicative concepts
- sentences or their complex conceptual correlates
- quantifiers or their conceptual correlates

Special quantifiers in the plural

Counting substitution instances

Application to direct quotes? Extend language so as to contain quotes

Words NPs?   Pronouns?   Wh-clauses?

4.2. The higher-order quantification approach

The higher-order view of special quantifiers

Prior, Wright, Williamson, Rosefeldt, d'Ambrosio, and others:

Special quantifiers are higher-order quantifiers, ranging over denotations that are not first-

order entities and cannot be referred to as such *even in the metalanguage*.

(32) *John is something* is true iff for something F, F(John).

How the analysis applies

Embedded clauses: quantification over sentential values ('contents')

Complements of intensional transitives: quantification over intensional quantifiers

VP complements? Direct quotes? Measure phrases?

Special quantifiers replacing definite plural and mass DPs

Add genuine plural and mass quantification (also in the metalanguage)

Genuine plural quantification (quantification over pluralities as many) (e.g. McKay 2008)

Genuine mass quantification (quantification over 'quantities' that are neither one nor many)

(McKay 2016)

Special quantifiers in the plural ?

Quantification over higher-order plurality, reification of pluralities and quantities

Special pronouns

Reference to higher-order semantic values.

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5. Problems for substitutional and higher-order approaches

5.1. Quantifier restrictions1: adjectives

(33) a. Mary is something admirable, courageous.

    b. Sue is something not uncommon, nervous.

(34) a. John claimed something outrageous, that he is a genius.

    b. John said something strange, that he is an alien.

(35) a. John said something true.

    b. Bill claimed something outrageous.

(36) John is looking for something expensive, a villa with a sea view.

Sainsbury (2018): Adjectives are not existentially committing

But no account given within substitutional or higher-order analyses:

(37) a. Some vindicating instance of 'Sue is ---' is not uncommon?

    b. For some F, Sue is F and F is uncommon?

Additional problem for substitutional and higher-order analyses with embedded causes

Factivity effect with *nice* modifying special quantifier:

(38) a. Sue said something nice, that Bill is talented.   (not factive)

    b. That Bill is talented is nice.   (factive)

5.2. Quantifier restrictions 2: relative clauses

What may bind a position inside the relative clauses that is syntactically and semantically incompatible with higher-order expressions or values.

(39) a. Mary is something I admire *e* a lot, courageous.

    b. Bill is everything Mary likes *e* in a man.

 c. Joe is something I hate *e*, sloppy.

Relative pronoun does not originate in predicate position!

(39) d. I like what John has become, very athletic.

Special quantifiers in clausal complement position

(40) John said something that caused an uproar.   (again, not factive!)

Relative pronoun originates in a position not accepting clausal complements:

(41) a. John said something I really do not like *e*.

 b. John said something I would strongly object to *e*.

 c. John believed something we never talked about *e*.

Special quantifiers as complements of intensional transitive verbs

(42) a. John needs something that is hard to get *e*.

 b. John needs something that I have never seen *e* anywhere.

Relative pronoun does not originate in intensional quantifier position!

5.3. Identity statements

Clausal complements of attitude verbs (Moltmann 2003b, 2013)

(43) a. ??? John thought what Bill claimed, that it will rain.

 b. ??? John thought everything that Bill had claimed.

 c. John claimed what Bill claimed.

 d. John thought what Bill thought.

(44) a. ??? Joe hoped what Bill claimed, that it will rain.

 b. ??? Joe fears what Bill wrote, that it will rain.

Shared object not a propositional content, but a claim, a thought, a hope, a fear: an 'attitudinal object of kind of such an object.

Complements of intensional transitives (Moltmann 2013)

Apparently no need for a shared attitudinal or modal object:

(45) a. John needed what he now has, a house.

 b. John needs what he is looking for, a computer.

(46) a. ?? John needs what Mary painted, a house.

 b. ?? John is looking for what Bill recognized, a genius.

The shared object of intensional transitives (verbs of absence: *need, look for*)

Not a need or search, but 'the satisfaction of a need' or 'the satisfaction of a search'

The satisfaction of a need: objects in situations satisfying the need

= *variable satisfiers* of the need

In (45a): a (possible) house in a situation satisfying John's need = a house John has

In (45b): a (possible) computer in a situation satisfying John's need = a computer in a situation satisfying John's search.

Restrictions on direct quotes :

(47) a. ??John whispered what Bill said, 'wow'

   b. John whispered what Bill whispered, 'wow'.

(Products of) phatic acts (Austin 1961) need to be the same, not quotes as such.

5.4. Quantificational complements of intensional transitives

Substitutional account intensional transitives

(48) a. John needs something.

   b. Some vindicating instance of 'John needs ---' is true.

Higher-order account of intensional transitives

(49) a. John needs something.

   b. For some Q, need(John, Q)

Invalid inferences with intensional transitive verbs (Zimmermann 2006, Moltmann 2013)

Invalid inference from (50a) or (50b) to (50c):

(50) a. John needs at most two vaccines.

   b. John needs no vaccine.

   c. John needs something.

Invalid:

(51) John promised at most one trip to Disneyland.

   John promised something.

(52e) does not follow from (52a, b):

(52) a. John needs a visa to the US.

   b. Mary needs a visa to Russia.

   c. John needs a visa.

   d. Mary needs a visa.

   e. John and Mary need the same thing.

Solutions to the problem

Zimmermann (2006): *Something* quantifies over properties that are the exact match of the need.

Moltmann (2013): *Something* ranges over variable satisfiers of the need.

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6. The Nominalization Theory of special quantifiers

6.1. The Nominalization Theory in its general form

(53) The Nominalization Theory of special quantifiers

Special quantifiers range over the very same entities that a corresponding nominalization would stand for.

With attitude verbs

Special quantifiers range over *attitudinal objects* or kinds of them (claims, thoughts, assumptions etc.).

With copular verbs:

Special quantifiers range over *tropes* or kinds of them (happiness, sloppiness, wisdom, …).

With intensional transitives

Special quantifiers range over *variable satisfiers*.

With measure verbs

Special quantifiers range over *quantitative tropes* or kinds of them (weights, heights).

With verbs of saying taking direct quotes

Special quantifiers range over *utterances* - phatic objects ('sayings').

What the view leaves open

How do special quantifiers manage to range over such objects?

Two options

1. Special quantifiers introduce a 'new domain' of entities that would not have been present in the semantic structure without the special quantifier.

2. Special quantifiers pick up on the denotation of an underlying noun.

Semantics of special quantifiers with attitude verbs

Option 1: my older work (neo-Russellian semantics of attitude verbs Moltmann 2003, 2013)

Option 2: more recent work (Moltmann 2021): with connections to syntactic proposals by

Kayne (2010), Harves/Kayne (2012), and Arsijenevic (2009)

6.2. The nominalization theory of special quantifiers with attitude verbs

Attitude reports based on lexical decomposition: Arsijenevic (2009), Moltmann (2021)

(54) a. John claimed that S.

    b. John made (the) claim that S.

    c. John made [claim [that [e +ass] S]]

    d. John claim-made ~~claim~~ [that [[$_{force}$~~claim~~ +ass] S]]

The general assumption

Attitude verbs derived from light verb-noun combinations

Compare Harves/Kayne (2012) *need = have need*, and Hale/Kayser (2002) for lexical

decomposition of verbs in syntax more generally (*walk = take a walk*).

Sketch of an analysis of special quantifiers with attitude verbs

The idea: The light noun -*thing* forms a (kind of) compound with the nominal from which the attitude verb is derived.

(55) a. John claimed something.

    b. John claim-made [some ~~claim~~-thing]

    c. the denotation of [claim-thing] = the denotation of [claim$_N$]

(56) * [claim-proposition], * [claim-objects]

Verbs of saying with direct quotes

Direct quotes as predicates of phatic objects (utterances)

(57) a. John said 'wow'.

    b. ∃d(make(John, d) & saying(d) & ['wow'](d))

(58) a. John said something.

    c. John said a word.

    d. John say-make some ~~say~~-thing.

    e. John say-make a ~~say~~-word.

f. [say-word], *[say-noun], *[say-expression]

Towards nominalization analysis of propredicative special quantifiers(suggestion)

(59) a. John is something.

b. For some noun / concept N, John is some N-thing

c. For some noun / concept N, John N-is some ~~N~~-thing.

d. the denotation of [happy-thing] = the denotation of *happiness*

e. * [happy-property]

The nature of the analysis

Higher-order-quantification + syntactic and semantic nominalization + incorporation:

Quantification over both predicate denotations and tropes (kinds of tropes)

Carrying the view over to intensional transitives

(60) a. John needs$_2$ a computer.

b. John have need$_2$ for a computer.

(61) a. John needs$_2$ something.

b. John have some need$_2$-thing.

c. John need-have some ~~need$_2$~~-thing.

Special quantifiers in place of definite plurals:

(62) a. John ate something, the bean

b. For some xx, John ate some xx-thing

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