Why *have* can take bare nominals

Bare nominals

= singular count nouns appearing without overt determiner in argument position

> Certain types of verbs
   
   Existential constructions
   
   Intensional verbs
   
   *Have* verbs

Existential constructions

Statement of instantiation of a property.

No surprise here...

Intensional verbs

Lack of existential claim.

No surprise here...

*Have* verbs

??

> No answer in recent literature...

Borthen (2003), Dobrovie-Sorin, Bleam & Espinal (2006) and Espinal & McNally (2011) develop detailed analyses but don’t tell us *why* *have* verbs are special.

> Not irrelevant though...

If we want to get from descriptive to explanatory adequacy, we need the answer.
Goals of this talk

Goals

The more ambitious goal
To answer the question in the title: why is it have can take bare nominals.

The more realistic goal
To bring together two areas of research in semantics that (as far as I know) haven’t been connected: bare singulars with have verbs and relational HAVE.

Relational HAVE

Mary has a brother.

John has a friend.

The gist of the literature on relational HAVE is that one should try and get around the presence of the indefinite article.

If we’re dealing with the same have, the literature on relational HAVE might then contain a straightforward answer to the question why have can take bare nominals.

Why relational HAVE doesn't like a

Mary has a brother.

Relational semantics for brother

\[ \lambda x \lambda y (\text{brother}(y,x)) \]

Standard semantics for a

\[ \lambda P \lambda Q \exists x (P(x) \& Q(x)) \]

The challenge
We would like to combine brother with Mary before combining with a.

Partee (1999)

Gist of the analysis
Direct connection between brother and Mary through quantifying-in.

\[ \lambda y (\text{exist}(y)) \]

\[ \lambda x \lambda y (\text{brother}(y,x)) \]

\[ \lambda y (\text{brother}(y,z)) \]

\[ \exists y (\text{brother}(y,z) \& \text{exist}(y)) \]

\[ \exists y (\text{brother}(y,m) \& \text{exist}(y)) \]
Gist of the analysis
Direct connection between brother and Mary by:
> adopting a modifier semantics for a
> analyzing have as a verb that selects relations and binds their internal argument

\[
\begin{align*}
\text{Mary} & \quad \text{have} \quad \text{a} \quad \text{brother} \\
\lambda R.(\forall p \exists q R(p,q)) & \quad \lambda \forall y \text{(brother of } (y,x)) \\
\lambda \forall x \text{(brother of } (y,x)) & \quad \lambda p \exists q \text{(brother of } (q,p)) \\
& \quad \exists q \text{(brother of } (q,m)) 
\end{align*}
\]

Both analyses make sure the indefinite article and have don't stand in the way of Mary and brother.

Existential quantification in Partee's analysis comes from the indefinite article. This is less easily transposable to constructions without indefinite article.

Landman's analysis puts the existential quantification at the level of the verb. I will - for the moment - follow his insight that have is a verb that mediates between relations at the nominal level and the verbal level.

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Putting things together

Putting things together

My worry about have verbs was that I didn't understand why they take bare nominals.

It turns out though that a potential answer has been in the literature on relational HAVE all along:

As a mediator between relations at the nominal and the verbal level, HAVE doesn't select normal arguments but relational predicates. The fact that the indefinite article can be absent is consequently expected.

Putting things together

Problem
If the have we find with bare nominals is indeed a mediator between relations at the nominal and the verbal level...

... we would predict relational nouns to be the preferred class of nouns to occur bare with have.

This prediction is not borne out.

> The nouns that combine (and combined) with tener in Spanish e.g. don't exhibit a clear relational bias.

Probing the analysis further
A new proposal

Relational HAVE selects relations and consequently mediates between relations at the nominal and the verbal level.

Landman's proposal

Relational HAVE is not a mediator between relations but rather a relation builder.

\[ \lambda P \lambda z \exists n (\text{transitivize}(P)(z)(n)) \]

It selects a one-place predicate and returns a two-place predicate with an existentially quantified internal argument.

The new proposal

Relational HAVE is not a mediator between relations but rather a relation builder.

The mediator analysis (1)

> We assume Landman's analysis of have, viz. that of a verb that selects relations and existentially binds their internal argument.

\[ \lambda R \lambda p \exists q (R(p)(q)) \]

> We furthermore assume a relational semantics for brother that can directly combine with HAVE on its mediator analysis:

\[ \lambda x \lambda y (\text{brother of } (y,x)) \]

The mediator analysis (2)

Propose a modifier semantics for the.

for non-relational predicates

the man

\[ \lambda x (\text{man}(x) \land \forall y (\text{man}(y) \rightarrow y = x)) \]

for relational predicates

the brother

\[ \lambda z \lambda x (\text{brother of } (x,z) \land \forall y (\text{brother of } (y,z) \rightarrow y = x)) \]

\[ \exists x (\text{brother of } (x,m) \land \forall y (\text{brother of } (y,m) \rightarrow y = x)) \]

problematic!!!

The data

Mary has the nicest brother.

The mediator analysis (3)


The mediator analysis (4)
The relation-building analysis (1)

> We assume the relation-building analysis of HAVE.
> \[ \lambda x.\lambda y.\text{brother of } (y, x) \]

Instead of assuming that brother has its 'classical' relational semantics...

\[ \lambda x.\lambda y.\text{brother of } (y, x) \]

... we assume it has a non-relational semantics that can directly combine with HAVE on its relation-building analysis.

\[ \lambda x.\lambda y.\text{brother of } (y, x) \]

\[ <e, t> \]

The relation-building analysis (2)

brother brother \[ <e, t> \]
the brother THE brother \[ <e, t>, t> \]
have the brother

\[ <e, t>, <e, t>, t> \]

type-clash > apply BE

\[ <e, t>, <e, t> \]

have \[ \text{BE(THE brother)} \]

have(BE(THE brother)) \[ <e, t> \]

Mary have the brother

\[ \text{have(BE(THE brother))} \]

m \[ t \]

The relation-building analysis (3)

The transitivization step

input: a set of individuals

ex. \[ \lambda x.\text{book}(x) \]

The set consisting of the unique person who stands in the brother relation to someone

\[ \lambda x.\lambda w.\lambda x.\text{book}(x) \& \text{belonging to } (x, w) \]

output: the set of pairs of which the first member...

1) ... belongs to the input set
2) ... stands in a pragmatically inferred relation to the second member

ex. \[ \lambda w.\lambda x.\text{book}(x) \& \text{belonging to } (x, w) \]

The relation-building analysis (4)

The final truth conditions

There is an \( x \) who stands in the brother relation to Mary and who is moreover the only person who stands in the brother relation to someone.

\[ \exists x (\exists y (\text{brother of } (x, y)) \& \forall z (\exists v (\text{brother of } (x, v)) \rightarrow z = x) \& \text{brother of } (x, m)) \]

This is exactly what we need it to be!!!

Wrapping up
Wrapping-up

> I have sketched an analysis of relational HAVE as a relation building verb.

> I have argued that it gives us a better account of relational HAVE than other analyses.

> With this analysis in place, we have an answer to the question why have is more prone to combine with bare nominals - "relational" or not - than other verbs.

Relational HAVE selects expressions of type \(<e,t>\) and turns them into expressions of type \(<e,<e,t>>\) and then \(<e,t>\).

This doesn't mean that it cannot combine with argumental types but it does mean that these would have to be shifted to type \(<e,t>\) first.

Given that A and BE neutralize each other, the addition of the indefinite article is nothing more than a complication of the semantics.

References


