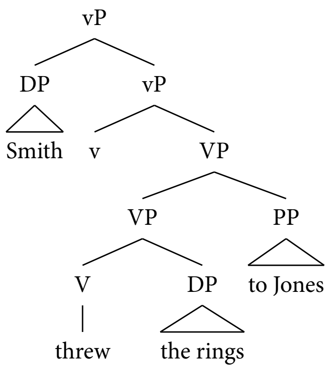
Dative Alternation: A summary

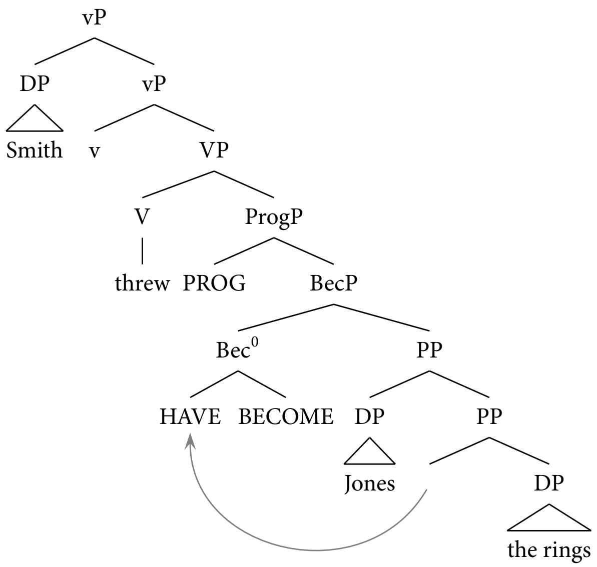
Acquisition and Arguments
20 November 2013

Motion verbs.

(1) a.



b.



(2) Denotations:

a. $[\![\text{TO}_{\text{at}}]\!] = \lambda x\ \lambda y\ \lambda s.\ y$ is at location_of(x) in s.

b. $[\![\text{HAVE}]\!] = \lambda y\ \lambda x\ \lambda s\ x$ has y in s

c. $[\![\text{BECOME}]\!] = \lambda P\ \lambda e.\ P(pre(e)) \neq 1\ \&\ P(post(e)) = 1.$

$pre(e)$ is the state at the beginning of e

$post(e)$ is the state at the end of e.

d. $[\![\text{PROG}]\!] = \lambda P\ \lambda e.\ e$ can plausibly have continued and become a larger event f such that $P(f) = 1$.

e. $[\![\text{THROW}]\!] = \lambda e.\ e$ is a throwing.

f. $[\![\text{THROW}^{\text{T}}]\!] = \lambda x\ \lambda e.\ e$ is a throwing of x.

(3) Lexical Map:

a. *throw* → THROW or THROW^{T}

b. *to* → TO$_{\text{at}}$

c. P_{have} → PROG+BECOME+HAVE

We use a rule of semantic composition to introduce the "cause" relation between *throw* and the small clause it embeds.

(4) If α and β are predicates of events then $\underset{\alpha\quad\beta}{[\![\gamma]\!]}$ can be $\lambda e.\ \exists e'.\beta(e')$ only if $\alpha(e)$ occurs & e' is a part of e.

P$_{\text{have}}$ lexicalizes PROG+BECOME+HAVE, and so we should expect all double object constructions to involve this relation between the two objects. The variation in meaning we've seen in the double object construction comes by way of what the selective verbs lexicalize. For instance:

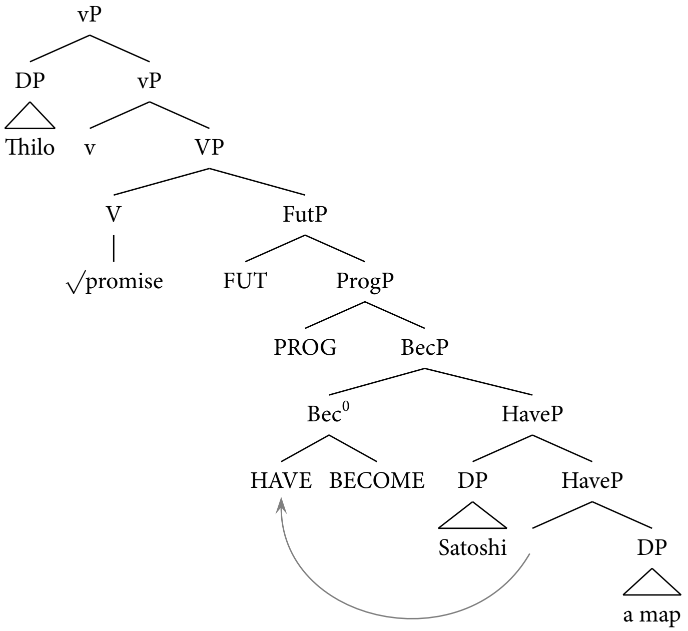
(5) Thilo promised Satoshi a map.

promise → v+$\sqrt{\text{promise}}$+FUT

(6) Thilo denied Satoshi ice-cream.
deny → v+$\sqrt{\text{deny}}$+NOT

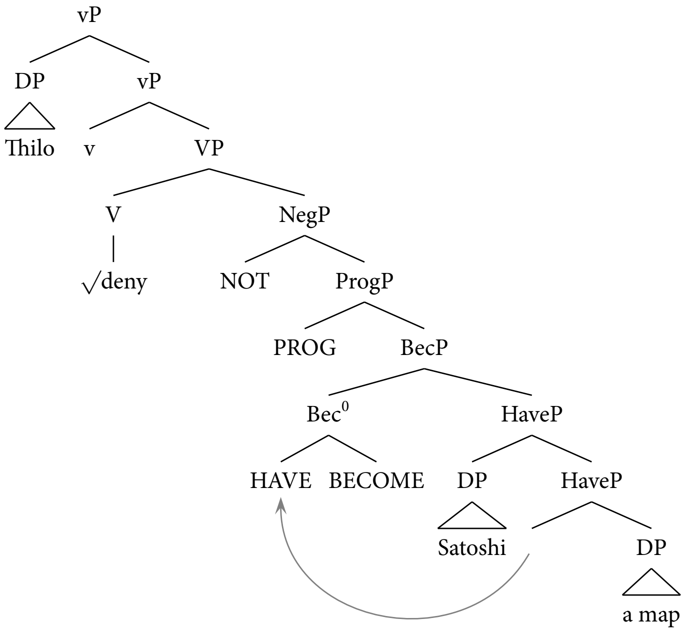
Here's what this would give us for *promise*.

(7)



And *deny* looks like (8).

(8)



A special case is *give*, which doesn't have the progressive operator built into its double object construction.

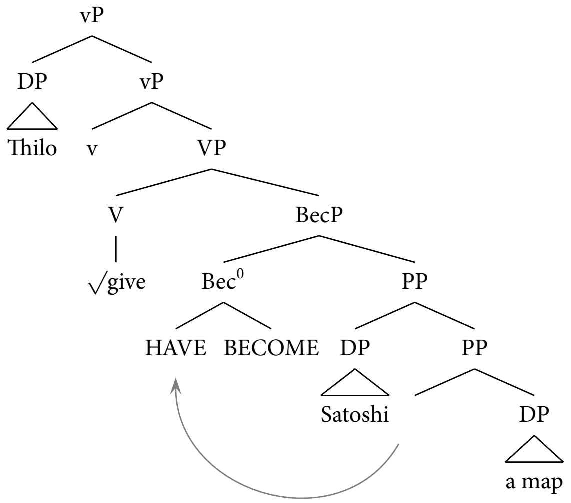
(9) Thilo gave Satoshi a map, #but he never got it.

Like the *promise/deny/bet* class, then, we cannot let *give* have a meaning that allows the P_{have}P inside. The suggestion I made is that *give* lexicalizes BECOME+HAVE.

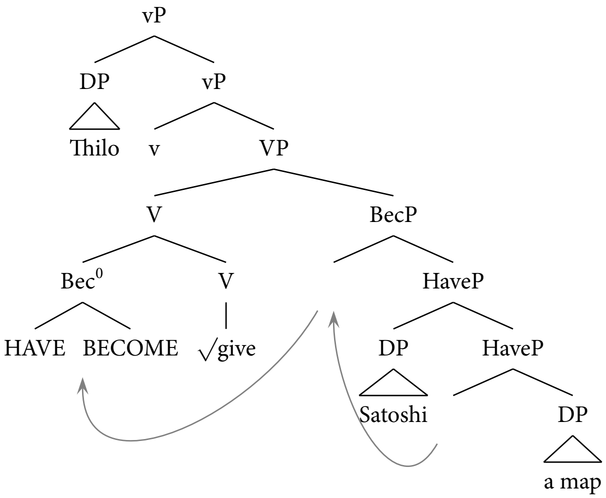
(10) *give* → v+$\sqrt{\text{give}}$+BECOME+HAVE

So:

(11)



(12)

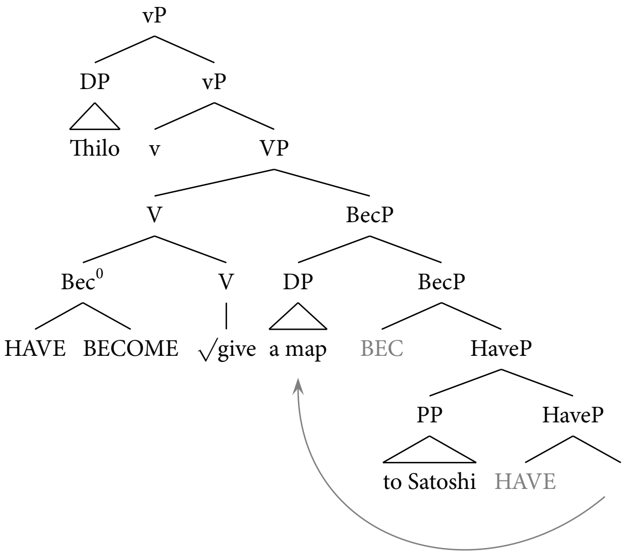


This means that *give* always embeds a double object construction. To get its other frame:

(13) Thilo gave a map to Satoshi.

must be derived from the double object frame. I suggested that a derivation like that found in Romance causatives is available.

(14)



We have two outstanding problems. The first is Baker's.

(15) a. Thilo kicked a ball to Satoshi.
b. Thilo kicked Satoshi a ball.
c. Thilo pull a ball to Satoshi.
* Thilo pull Satoshi a ball.

Pinker suggested that what is relevant here is that the object is implicated in defining a pulling event, but it isn't in defining a kick event. I tried to use this observation in the way that Krifka (1999, 2003) does.

(16) Homomorphism
H(e,e') iff for all $x, x' \leq e$ and $y, y' \leq e'$:
a. if $y \neq y'$ and $\mathrm{H}(x, y)$ and $\mathrm{H}(x', y')$, then $x \neq x'$, and
distinct parts of e' correspond to distinct parts of e
b. if $\mathrm{H}(x, y)$ and $\mathrm{H}(x', y')$, then $\mathrm{H}(x \oplus x', y \oplus y')$
the sum of two parts of e correspond to the sum of two parts of e'

pull is homomorphic and *kick* is not. I tried to argue that homomorphic predicates could not be combined by CAUSE and BECOME with a result state. I suggested that because CAUSE and BECOME will require the result state to be part of the event described by the verb, that this will make homomorphism hold of the resultant state if it holds of the verb. This, I suggested, should impossible because the AGENT will therefore necessary be part of the resultant state.

But we can see that this idea can't be correct from:

(17) Thilo pulled the candy thin.

Baker's problem remains unsolved.

The other outstanding problem is how to capture the fact that the second object of the double object construction is an object of the higher predicate. We can see this, I think, in the case of creation verbs.

(18) Thilo knitted Satoshi a sweater.

We want to capture the fact that (18)'s denotation makes the sweater's existence come about by way of the knitting event. That is normally done by building into the denotation of *knit* that its object is created.

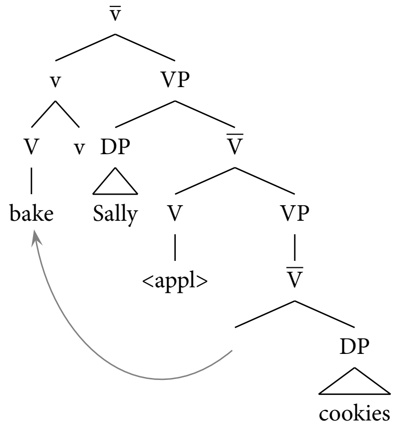
(19) Thilo knitted a sweater.

Maybe this could be achieved with the minimal situation idea? I'm not sure. Another way of seeing the same problem, though, is to recognize that obligatorily transitive verbs can fit into the double object construction.

(20) a. * Mary sent.
b. Mary sent Bill the letter.

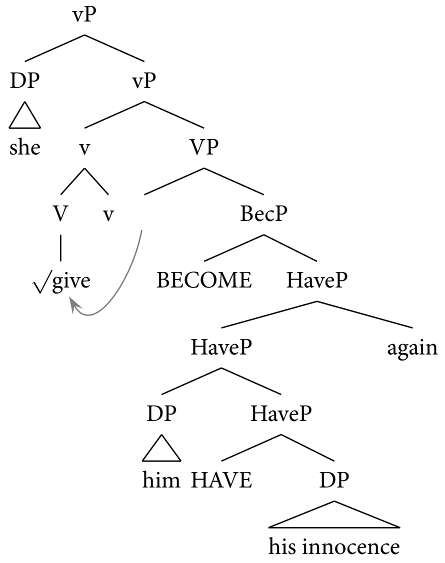
This is what drives most analyzes of the double object construction to something like (21).

(21)



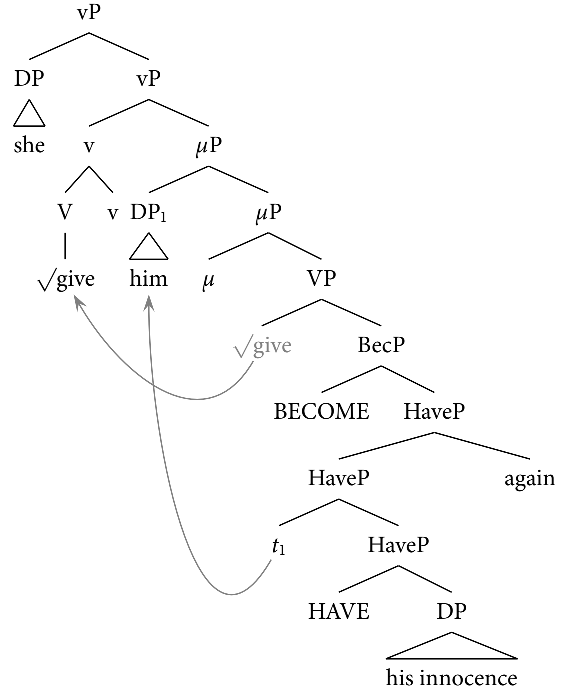
Here the <appl> head must somehow encode what I've expressed as "HAVE." See Bruening (2010b,a). But these geometries do not allow for there to be a constituent that is made up of the two objects and HAVE (or its equivalent) that does not include the verb. And I think we need that:

(22) She gave him his innocence again.



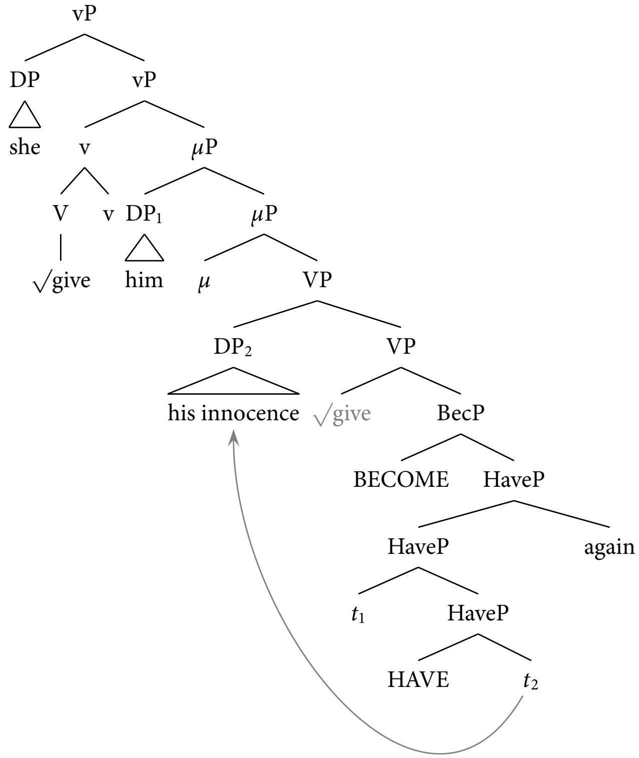
Here's a stab at a solution. First, we make room for Object Shift.

(23)



This problem is driving us to seeing the second object of the double object construction as being able to be an argument both of the HAVE and the embedding verb. We can do that by letting that argument move:

(24)



References

Bruening, Benjamin. 2010a. Ditransitive asymmetries and a theory of idiom formation. *Linguistic Inquiry* 41:519–562.

Bruening, Benjamin. 2010b. Double object constructions disguised as prepositional datives. *Linguistic Inquiry* 41:281–305.

Krifka, Manfred. 1999. Manner in dative alternation. In *Proceedings of WCCFL 18*, ed. Sonya Bird, Andrew Carnie, Jason D. Haugen, and Peter Norquest. Somerville, Massachusetts: Cascadilla Press.

Krifka, Manfred. 2003. Semantic and pragmatic conditions for the dative alternation. In *International Conference on English Language and Linguistics*. Seoul, South Korea: KASELL.