Not all null *have*-clauses are alike

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1 Introduction

Phonologically-null *have*-clauses

- Desideratives (*need*-type ITVs)

  (1) John needs a cookie. ≈ John needs to have a cookie.

  (2) John wants a cookie. ≈ John wants to have a cookie.

- Double object constructions

  (3) John gave Mary a cookie. ≈ John caused Mary to have a cookie.

  (4) Mary got a cookie. ≈ Mary came to have a cookie.

- We note – evaluative + *would* shows same behavior
  → we propose it also takes null *have*

  (5) John would like a cookie. ≈ John would like to have a cookie.

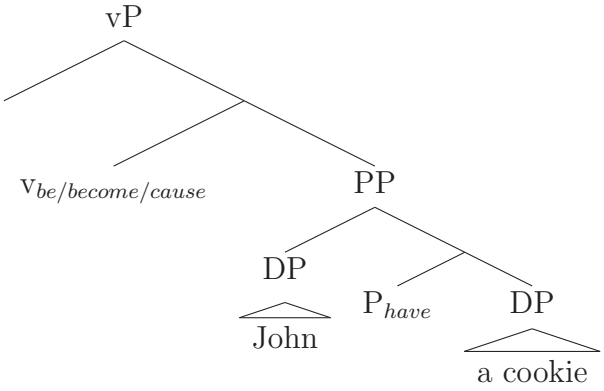
- We note – evaluative + modification shows same behavior
  → we propose it also takes null *have*

  (6) John likes a cookie after dinner. ≈ John likes to have a cookie after dinner.

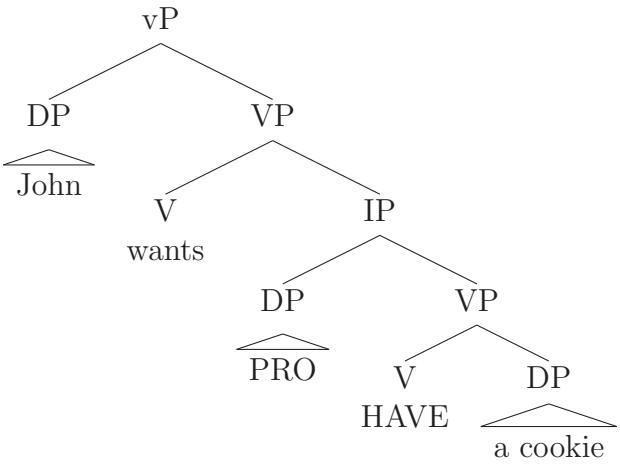
- All take *have*-clauses, but have different behavior
  - Vary in verbal complement behavior
  - Vary in available semantic relations
- We argue *like*'s *have*-clause behaves like *want*'s based on table, but not on qualia

Previous structures

- DO – *have* as P (Harley, 2002, 1995; Beck and Johnson, 2004; Richards, 2001)



- Desideratives – *have* as V (Ross, 1976; McCawley, 1974; Schwarz, 2008)



Evaluatives – *have* as ???

- We argue evaluatives' *have*-clause behaves verbally (like desideratives'), but allows fewer semantic relations

2 Verbal behavior

diagnostic	DO constructions	desideratives	evaluatives
1. Adverb ambiguity	no	**yes**	**yes**
2. *Too* ambiguity	**yes**	**yes**	no (bad diagnostic)
3. VP ellipsis ambiguity	no	**yes**	**yes**
4. Sentential anaphor ambiguity	no	**yes**	**yes**
5. Opaque DP	no	**yes**	no(experience requirement)
6. Non-specific DP	no	**yes**	**yes**
7. No preservation under replacement	no	**yes**	**yes**

→ evaluatives look like desideratives

Following Marušič and Žaucer (2006), this suggests that evaluatives also have null verbs (not prepositions)

2.1 Diagnostics – V

1. Adverb ambiguity

(7) John got a cookie after dinner.
   a. 'There was a time after dinner at which John got a cookie.' (V)
   b. *'John's 'becoming' was to have a cookie after dinner.' (*have*)

(8) John wanted a cookie after dinner.
   a. 'There was a time after dinner at which John wanted a cookie.' (V)
   b. 'John's desire was to have a cookie after dinner.' (*have*)

(9) John liked a cookie after dinner.[1]
   a. 'There was a time after dinner at which John liked a cookie.' (V)
   b. 'John was positively disposed toward having a cookie after dinner.' (*have*)

V vs. P – 2 Vs = ambiguous; 1 V = unambiguous

– each V introduces an event that can be independently temporally modified

2. *Too* ambiguity

(10) John has a cookie, and Mary got one too.

(11) John has a cookie, and Mary wants one too.

(12) John has a cookie after dinner, and Mary likes one too.

Bad diagnostic — *too* relies more on similarities in meaning than in structure

like is only felicitous if *have* entails liking (you have it because you like it), which isn't easy to get in the colonoscopy example.

(13) #John has a colonoscopy every Thursday, and Mary likes one too.

3. VP ellipsis ambiguity (from Larson et al 1997)

(14) John got more toys than Ben. (Marušič and Žaucer, 2006, p. 136)
   a. 'John got more toys than Ben got' (V)
   b. *'John got more toys than Ben has' (*have*)

[1]Note that the non-*have* version of *like* shows no ambiguity.

(i) ?John liked Mary after dinner.
   a. ?'There was a time after dinner at which John liked Mary.' (V)
   b. ??'John was positively disposed toward having Mary after dinner.' (*have*)

(15) John wants more toys than Ben. (Marušič and Žaucer, 2006, p. 135)
a. 'John want to have more toys than Ben wants to have toys' (V)
b. 'John wants to have more toys than Ben has toys' (*have*)

(16) John likes more cookies after dinner than Ben.
a. 'John likes to have more cookies after dinner than Ben likes to have' (V)
b. 'John likes to have more cookies after dinner than Ben has' (*have*)

V vs. P – 2 Vs = ambiguous; 1 V = unambiguous

– each VP introduces a location for VP ellipsis

4. Sentential anaphor ambiguity

(17) Joe got some coca leaves (as a birthday present from his friends) even though the law doesn't allow it. (Marušič and Žaucer, 2006, p. 137)
a. '...the law doesn't allow Joe's getting some coca leaves.' (V)
b. *'...the law doesn't allow Joe's having some coca leaves.' (*have*)

(18) Joe wants a second wife, but his mother won't allow it. (Marušič and Žaucer, 2006, p. 137)
a. '...but his mother won't allow him to want a second wife.' (V)
b. '...but his mother won't allow him to have a second wife.' (*have*)

(19) Joe likes a cookie after dinner, but his mother won't allow it.
a. '...but his mother won't allow him to like to have a cookie after dinner.' (V)
b. '...but his mother won't allow him to have a cookie after dinner.' (*have*)

Note: *allow* requires a sentential anaphor

V vs. P – 2 Vs = ambiguous; 1 V = unambiguous

– each V's IP introduces a potential antecedent

2.2 Diagnostics – Intensional V

5. Opaque DP (Marušič and Žaucer, 2006, p. 138)

(20) John got a real live unicorn. (false/undefined)

(21) John wanted a real live unicorn. (true or false)

(22) John liked a real live unicorn. (false/undefined)

Intensional V allows opaque reading

6. Non-specific DP

   (23) John got a cookie after dinner. (+specific)

   (24) John wanted a cookie after dinner. (±specific)

   (25) John liked a cookie after dinner. (±specific)

   Intensional V allows non-specific reading

7. No preservation under replacement
   John believes that water (potable) $\neq$ H_2O (poison):

   (26) John got water with dinner. = John got H_20 with dinner.

   (27) John wanted water with dinner. $\neq$ John wanted H_20 with dinner.

   (28) John liked water with dinner. $\neq$ John liked H_20 with dinner.

   Intensional V does not preserve truth conditions under replacement

2.3 Conclusion

Desideratives and evaluatives pattern alike, appear to take verbal *have*-clause

DO constructions do **not** appear to take verbal *have*-clause

According to Marušič and Žaucer (2006):

- DO constructions take null P_{have} (Harley, 2002)
- Desideratives take special null V_{have} and V_{get}
  - Sometimes only one works in the context, (Harley, 2004):

    (29) a. John wants a compliment / kiss / pat on the back.
    b. #John wants to have a compliment / kiss / pat on the back.
    c. John wants to get a compliment / kiss / pat on the back.

  - Not semantically identical to overt forms – see idioms (Marušič and Žaucer, 2006, p. 142):

    (30) a. Peter me je hotel #(met) za norca.
    Peter I_{ACC} AUX wanted have for fool
    Idiomatic: 'He wanted to take me for a fool.'
    b. Nisem te hotel #(met) poln kufer.
    not-AUX you_{ACC} want have full case
    idiomatic: 'I didn't want to be sick of you.'

(31) a. I need a shower (≠ have a shower) (Schwarz, 2008)
b. ??I want a blast (≠ I want to have a blast)

Given that desideratives and evaluatives pattern similarly above do they both use null V_{have} and V_{get}?

Qualia suggest not

3 Semantic relations

Pustejovsky (1998): Elided predicates of the evaluative verb *enjoy*:

(32) a. Mary enjoyed the movie last night. (*watching*)
b. John quite enjoys his morning coffee. (*drinking*)
c. Bill enjoyed Steven King's last book. (*reading*) (Pustejovsky, 1998, p. 88)

> "...our understanding of these sentences is facilitated by default interpretations of properties and actions associated with objects. [...] TELIC roles for *movie, coffee* and *book* somehow project the activities of *watching the movie, drinking his morning coffee,* and *reading Steven King's last book*, respectively to the interpretation of the VP."

Cases where a non-default interpretation is obtained:

(33) a. Midwestern fish farmers are preferring catfish this year. (*raising?*)
b. Book sellers usually prefer cookbooks to textbooks around Christmas. (*selling?*)

Vikner and Jensen (2002) group constructions with *have* together with genitive constructions in that the interpretations of both crucially involve a non-explicit relation between two entities that can take on a large number of values

(34) a. The girl's sister (kinship)
b. The girl's nose (part-whole)
c. The girl's car (control/ownership)

Many further relations can be obtained from a context, thus, e.g. *the girl's poem* can refer to a poem that the girl wrote, or picked to read, or found, or even a poem that is conventionally associated with the girl due to no fault of her own.

Have shows similar flexibility in the relation that it expresses:

(35) a. The girl has a sister. (kinship)
b. The girl has a nose. (part-whole)
c. The girl has a car. (control/ownership)

Vikner and Jensen point out that the kinds of relations indicated in (35) are distinguished in being available simply on the basis of the words themselves, without need of contextual support. They identify these set relations as lexical and the others as pragmatic, their lexical relations are:

- *inherent*
- *part-whole*
- *agentive*
- *control*

Vikner and Jensen distinguish the participants in a genitive as Ref_1 and Ref_2 which pick out the NPs to the left and right of the genitive *'s* respectively. We extend this terminology to *have*-clauses in which Ref_1 is the subject and Ref_2 the object.

(36) Ref_1's Ref_2

(37) Ref_1 has Ref_2

The inherent relation is available when Ref_2 (the head noun of the genitive or object nominal of the *have*-clause) is a relational noun like *sister* or *teacher*. The value of the relation is supplied by the semantics of the relational noun.

The part-whole relation holds of cases in which Ref_2 is taken to be a part of Ref_1.

The agentive relation holds between a created thing and its creator, this is the default interpretation of a genitive like *the girl's poem*.

The control relation holds between an animate being (Ref_1) and an object (Ref_2) that that being has the use of.

(38) Qualia Roles:
   a. Constitutive: The relation between an object and its constituents or proper parts
   b. Formal: That which distinguishes the object within a larger domain
   c. Telic: Purpose or function of the object
   d. Agentive: Factors involved in the origin or "bringing about" of an object (Pustejovsky, 1998, p.85)

Lexical entries from Vikner and Jensen (2002):

(39) *girl*
   Argument structure: $\lambda x[girl'(x)]$
   Qualia structure: ...

sister
Argument structure: $\lambda y[\lambda x[sister'(y)(x)]]$
Qualia structure: ...
teacher
Argument structure: $\lambda y[\lambda x[teacher'(y)(x)]]$
Qualia structure:
TELIC: $\lambda y[\lambda x[teach'(y)(x)]]$
poem
Argument structure: $\lambda x[poem'(x)]$
Qualia structure:
TELIC: $\lambda x[\lambda y[read'(x)(y)]]$
AGENTIVE: $\lambda x[\lambda y[compose'(x)(y)]]$
car
Argument structure: $\lambda x[car'(x)]$
Qualia structure:
TELIC: $\lambda x[\lambda y[drive'(x)(y)]]$
AGENTIVE: $\lambda x[\lambda y[construct'(x)(y)]]$

Qualia roles as partial functions from a word into its subconstituent denotations, e.g.

(40) $Q_T(\text{poem}) = \lambda x[\lambda y[read'(x)(y)]]$

(41) *nose*
Argument structure: $\lambda x[nose'(x)]$
Qualia structure:
CONSTITUTIVE: $\lambda y[\lambda x[part\text{-}of'(y : BODY)(x)]]$

Type shifting functions that take a sortal noun and return a complex meaning consisting of the basic noun meaning combined with one of the qualia roles.

part-whole relation:

(42) $\text{Co(W)} = \lambda y[\lambda x[W'(x)\ \&\ Q_C(W)(y)(x)]]$

(43) $\text{Co}(nose) = \lambda y[\lambda x[nose'(x)\&part\text{-}of'(y)(x)]]$

agentive relation:

(44) $\text{Ag(W)} = \lambda y[\lambda x[W'(x)\ \&\ Q_A(W)(x)(y)]]$

(45) $\text{Ag}(poem) = \lambda y[\lambda x[poem'(x)\ \&\ compose'(x)(y)]]$

control relation: new predicate, *control′*

(46) (47) Ctr(W) = $\lambda y[\lambda x[W'(x)$ & $control'(x)(y)]]$

favorite N construction: Takes an N and accesses its TELIC quale

e.g. Mary's favorite chair ≈ the chair that Mary likes best as a chair (i.e. to sit in)

Mary's favorite cigarette → the cigarette that Mary likes best as a cigarette (i.e. to smoke)

(48) Te(W) = $\lambda y[\lambda x[W'(x)$ & $Q_T(W)(x)(y)]]$

(49) Te($chair$) = $\lambda y[\lambda x[chair'(x)$ & $sit\text{-}in'(x)(y)]]$

3.1 Comparing verbs

Looking at the where in the lexical entry the 4 relations in genitives are encoded

- inherent relation → Argument structure (basic meaning)
- part-whole relation → constituative quale
- agentive relation → agentive quale
- control relation → Not in lexical entry, part of Ctr type-shifter
- typical-use relation → telic quale

's inherent | part-whole | agentive | control | typical-use

Lexical interpretations

- inherent
  - The girl's teacher
    'the person who is the teacher of the girl'
- part-whole
  - The girl's nose
    'the nose which is part of the girl'
- agentive
  - The girl's poem
    'the poem that the girl has written'
- control

  - The girl's car
    'the car which the girl has at her disposal'

- typical-use

  - The girl's favorite chair
    'the car which the girl likes best to sit in'

have inherent | part-whole | ~~agentive~~ | control | typical-use

Lexical interpretations

- inherent

  - The girl has a teacher
    'the person is the teacher of the girl'

- part-whole

  - The girl has nose
    'the nose is part of the girl'

- ~~agentive~~

  - The girl has a poem
    #'the girl has written the poem'

- control

  - The girl has car
    'the girl has the car at her disposal'

- typical-use

  - The girl had a cookie
    'the girl ate a cookie'

get HAVE inherent | part-whole | ~~agentive~~ | control | ~~typical-use~~ (DO)

Lexical interpretations

- inherent

  - The girl got a teacher
    'someone caused the person to be the teacher of the girl'

- part-whole
  - The girl got a (new) nose
    'someone caused the nose to be part of the girl'
- ~~agentive~~
  - The girl got a poem
    #'someone caused the poem to have been written'
- control
  - The girl got a car
    'someone caused the car to be at the girl's disposal'
- ~~typical-use~~
  - The girl got a cookie
    #'someone caused the cookie to be eaten by the girl'

give HAVE inherent | part-whole | ~~agentive~~ | control | ~~typical-use~~ (DO)

Lexical interpretations

- inherent
  - The woman give her husband a son
    'caused the person to be the son of the husband'
- part-whole
  - The doctor gave the girl a (new) nose
    'caused the nose to be part of the girl'
- ~~agentive~~
  - The boy gave the girl a poem
    #'caused the poem to be written'
- control
  - The boy gave the girl a car
    'caused the car to be at the girl's disposal'
- ~~typical-use~~
  - The boy gave the girl a cookie
    #'caused the cookie to be eaten by the girl'

want HAVE inherent | part-whole | ~~agentive~~ | control | typical-use (desiderative)

Lexical interpretations

- inherent
  - The girl wants a teacher
    'wants to be in a teacher-student relation'
- part-whole
  - The girl wants a (new) nose
    'wants the nose to be part of her'
- ~~agentive~~
  - The girl wants a poem
    #'wants to create/have created her poem'
- control
  - The girl wants a car
    'wants a car to be at her disposal'
- typical-use
  - The girl wants a cookie
    'wants to eat a cookie'

would like HAVE inherent | part-whole | ~~agentive~~ | control | typical-use (desiderative)

Lexical interpretations

- inherent
  - The girl would like a teacher
    'would to be in a teacher-student relation'
- part-whole
  - The girl would like a (new) nose
    'would like the nose to be part of her'
- ~~agentive~~

  - The girl would like a poem
    #'would like to create/have created her poem'

- control
  - The girl would like a car
    'would like a car to be at her disposal'

- typical-use
  - The girl would like a cookie
    'would like to eat a cookie'

like HAVE ~~inherent~~ | ~~part-whole~~ | ~~agentive~~ | ~~control~~ | typical-use (evaluative)

Want only *have*-clause-taking *like*, so using indefinites under non-specific reading

Lexical interpretations

- ~~inherent~~
  - The girl likes a teacher when she's stumped
    #'likes being in a teacher-student relation'

- ~~part-whole~~
  - The girl likes a (new) nose every so often
    #'likes the nose being part of her'

- ~~agentive~~
  - The girl likes a poem in the evenings
    # 'likes creating/having created her poem'
    (cf. pragmatic 'likes reading her poem')

- ~~control~~
  - The girl likes a car when she has errands to run
    #'likes having a car at her disposal'

- typical-use
  - The girl likes a cookie after dinner
    'likes eating a cookie'

enjoy HAVE ~~inherent~~ | ~~part-whole~~ | ~~agentive~~ | ~~control~~ | typical-use (evaluative)

Lexical interpretations

- ~~inherent~~
  - The girl enjoys her teacher
    #'enjoys being in a teacher-student relation with her teacher'
    (cf. pragmatic 'enjoys spending time with her teacher')
- ~~part-whole~~
  - The girl enjoys her (new) nose
    #'enjoys the nose being part of her'
    (cf. pragmatic 'enjoys using her nose, getting complements about it')
- ~~agentive~~
  - The girl enjoys her poem
    #'enjoys creating/having created her poem'
    (cf. pragmatic 'enjoys reading her poem')
- ~~control~~
  - The girl enjoys her car
    #'enjoys having the car at her disposal'
- typical-use
  - The girl enjoys a cookie
    'enjoys eating a cookie'

So... desideratives pattern like overt *have* and (almost) like DO constructions, while evaluatives pattern differently!

(50)

have	inherent | part-whole | ~~agentive~~ | control | typical-use
DO	inherent | part-whole | ~~agentive~~ | control | ~~typical-use~~
desideratives	inherent | part-whole | ~~agentive~~ | control | typical-use
evaluatives	~~inherent~~ | ~~part-whole~~ | ~~agentive~~ | ~~control~~ | typical-use

Based on this data, it looks like desideratives and evaluative do not use the same null verbs – evaluatives are more restricted in interpretation

So what verb(s) do evaluatives use?

4 Denotation for *have* and HAVE

Have takes a relation supplied by the object nominal (cf. Vikner and Jensen, 2002) and an individual and returns a truth value.

(51) $[\![\textbf{have}]\!] = \lambda R_{\langle e,et\rangle}\lambda x_e.\exists y R(x)(y)$

The relation can be one of the 'lexical' relations (inherent, part-whole, control, typical-use) or a pragmatically supplied relation.

E.g. *John has a car* with control relation[2]

(52) John has a car.

(53) $[\![\textbf{a car}]\!] = \lambda x_e.car(x)$

(54) $\text{Ctr(W)} = \lambda y[\lambda x[W'(x)\ \&\ control'(x)(y)]]$ (type-shifting function)

(55) $[\![\textbf{has}]\!]([\![\textbf{car}]\!]) = [\lambda R_{\langle e\langle et\rangle\rangle}\lambda x_e.\exists y R(x)(y)](\lambda x_e.car(x)) \leftarrow$ type mismatch

(56) $\text{Ctr(car)} = \lambda x_e.\lambda y_e.car(x)\ \&\ control(x)(y)$

(57) $[\![\textbf{has}]\!](Ctr(car)) = [\lambda R_{\langle e,et\rangle}\lambda x_e.\exists y R(x)(y)](\lambda w_e.\lambda z_e.car(w)\ \&\ control(w)(z))$
$\rightarrow \lambda x_e.\exists y[\lambda w_e.[\lambda z_e.car(w)\ \&\ control(w)(z)](x)(y)$
$\rightarrow \lambda x_e.\exists y[\lambda z_e.car(y)\ \&\ control(y)(z)](x)$
$\rightarrow \lambda x_e.\exists y.car(y)\ \&\ control(y)(x)$

(58) $[\![\textbf{John}]\!] = john$ (or generalized quantifier $\lambda Q_{\langle e,t\rangle}.Q(john)$)

(59) $[\![\textbf{has Ctr(car)}]\!]([\![\textbf{John}]\!]) = [\lambda x_e.\exists y.car(y)\ \&\ control(y)(x)](john)$
$\rightarrow \exists y.car(y)\ \&\ control(y)(john)$
-or-: $[Q_{\langle e,t\rangle}(john)](\lambda x_e.\exists y.car(y)\ \&\ control(y)(x))$
$\rightarrow [\lambda x_e.\exists y.car(y)\ \&\ control(y)(x)](john)$
$\rightarrow \exists y.car(y)\ \&\ control(y)(john)$

Of the lexical relations all are stative save the typical-use relation (encoded via the TELIC quale).

For nouns that have a TELIC quale, both control and typical-use relations are available but are dependent on tense/aspect

(60) Sandra is having a cookie * control, ✓typical-use

(61) Sandra has a cookie ✓control, * typical-use

(62) Sandra had a cookie ✓control, ✓typical-use

[2]for simplicity the indefinite article is treated as vacuous

Proposal:

- TELIC quale has a time-interval argument, it is type $\langle e\langle e\langle st\rangle\rangle\rangle$ (cf. the proposal that stative verbs lack an event argument in Davidson (1967))

  E.g. *cookie*
  Argument structure: $\lambda x_e.cookie(x)$
  Qualia structure:
  TELIC: $\lambda x_e.\lambda y_e.\lambda i_s.eat(x)(y)$ ← typical-use
  Also available is the control relation, provided by the Ctr type-shifting function:
  $Ctr(W) = \lambda x_e.\lambda y_e.W(x)$ & $control(x)(y)$ ← control

- *Have* is polysemous, taking an argument of $\langle e\langle e\langle st\rangle\rangle\rangle$ (typical-use relations) or $\langle e\langle et\rangle\rangle$ (for control relations and others)

Below we show these combining under the simple aspectual heads in (63)-(65) to yield empirical patterns in (60)-(61)

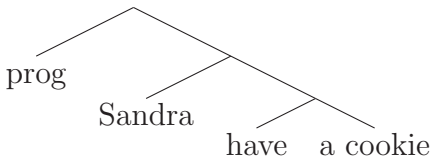
(63) $[\![\textbf{prog}]\!]^t = \lambda P_{\langle st\rangle}.\exists i_s.P(i)$ & $t \subseteq i$

(64) $[\![\textbf{pres}]\!]^t = \lambda p_t$. p at t

(65) $[\![\textbf{past}]\!]^t = \lambda P_{\langle st\rangle}.\exists i_s.P(i)$ & $i < t$
-or- $= \lambda p_t.\exists i_s.p$ holds at i & $i < t$

Progressive

(60) Sandra is having a cookie * control, ✓typical-use



- ✓ Telic under progressive:

  (66) Sandra is having a cookie.

  $[\![\textbf{have}_{telic}]\!]^t(\text{Te(cookie)}) = [\lambda R_{\langle e\langle e\langle st\rangle\rangle\rangle}.\lambda x_e.\lambda i_s.\exists y.R(i)(x)(y)](\lambda w_e.\lambda z_e.\lambda i'_s cookie(w)$ & $eat(w)(z)$ at $i')$
  $\rightarrow \lambda x_e.\lambda i_s.\exists y.[\lambda w_e.\lambda z_e.\lambda i'_s cookie(w)$ & $eat(w)(z)$ at $i'](i)(x)(y)$
  $\rightarrow \lambda x_e.\lambda i_s.\exists y.[\lambda z_e.\lambda i'_s cookie(y)$ & $eat(y)(z)$ at $i'](i)(x)$
  $\rightarrow \lambda x_e.\lambda i_s.\exists y.[\lambda i'_s cookie(y)$ & $eat(y)(x)$ at $i](i)$
  $\rightarrow \lambda x_e.\lambda i_s.\exists y.cookie(y)$ & $eat(y)(x)$ at i

$[\![\textbf{Sandra have}_{telic}\ \textbf{Te(cookie)}]\!]^t = \lambda i_s.\exists y.cookie(y)\ \&\ eat(y)(sandra)$ at i

$[\![\textbf{prog}]\!]^t([\![\textbf{Sandra have}_{telic}\ \textbf{Te(cookie)}]\!]^t) = [\lambda P_{\langle st\rangle}.\exists i_s.P(i)\ \&\ t \subseteq i](\lambda i'_s.\exists y.cookie(y)$ $\&\ \ eat(y)(sandra)$ at $i')$
$\rightarrow \exists i_s.[\lambda i'_s.\exists y.cookie(y)\&eat(y)(sandra)$ at $i'](i)\ \ \&\ \ t \subseteq i$
$\rightarrow \exists i_s.\exists y.cookie(y)\ \&\ eat(y)(sandra)$ at $i\ \&\ t \subseteq i$

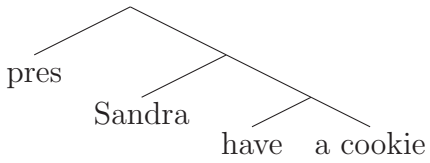
- * Stative under progressive:

  $[\![\textbf{Sandra have}_{stative}\ \textbf{Ctr(cookie)}]\!] = \exists y.cookie(y)\ \&\ control(y)(sandra)$

  $[\![\textbf{prog}]\!]^t([\![\textbf{Sandra have}_{stative}\ \textbf{Ctr(cookie)}]\!]) = [\lambda P_{\langle st\rangle}.\exists i_s.P(i)\ \ \&\ \ t \subseteq i](\exists y.cookie(y)$ $\&\ \ control(y)(sandra)) \leftarrow$ type mismatch

Present

(61) Sandra has a cookie ✓control, * typical-use



- ✓Stative under present:

  $[\![\textbf{pres}]\!]^t([\![\textbf{Sandra have}_{stative}\ \textbf{Ctr(cookie)}]\!]^t) = [\lambda p_t.\ \text{p at } t](\exists y.cookie(y)\ \&\ control(y)(sandra))$
  $\rightarrow \exists y.cookie(y)\ \&\ control(y)(sandra)$ at t

- * Telic under present:

  $[\![\textbf{pres}]\!]^t([\![\textbf{Sandra have}_{telic}\ \textbf{Te(cookie)}]\!]^t) = [\lambda p_t.\ \text{p at } t](\lambda i'_s.\exists y.cookie(y)\ \&\ eat(y)(sandra)$ at $i') \leftarrow$ type mismatch

Past

- ✓Stative under past:

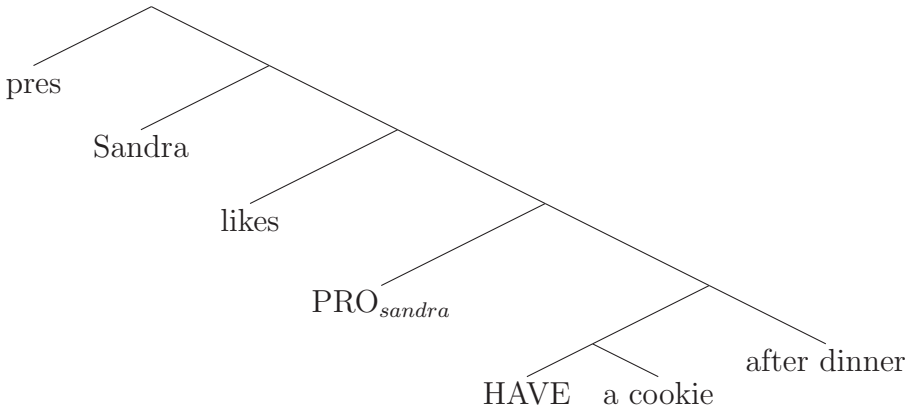
  $[\![\textbf{past}]\!]^t([\![\textbf{Sandra have}_{stative}\ \textbf{Ctr(cookie)}]\!]^t) = [\lambda p_t.\exists i_s.p$ holds at $i\ \&\ i < t](\exists y.cookie(y)$ $\&\ \ control(y)(sandra))$
  $\rightarrow \exists y.cookie(y)\ \&\ control(y)(sandra)$ holds at $i\ \&\ i < t$

- ✓Telic under past:

  $[\![\textbf{past}]\!]^t([\![\textbf{Sandra have}_{telic}\ \textbf{Te(cookie)}]\!]^t) = [\lambda P_{\langle st\rangle}.\exists i_s.P(i)\ \ \&\ \ i < t](\lambda i'_s.\exists y.cookie(y)$ $\&\ eat(y)(sandra)$ at $i')$
  $\rightarrow \exists i_s.[\lambda i'_s.\exists y.cookie(y)\ \&\ eat(y)(sandra)$ at $i'](i)\ \ \&\ \ i < t$
  $\rightarrow \exists i_s.\exists y.cookie(y)\ \&\ eat(y)(sandra)$ at $i\ \ \&\ \ i < t$

Now consider *like* with temporal modification

(67) Sandra likes a cookie after dinner.



$[\![\textbf{after dinner}]\!] = \lambda M_{\langle e,st\rangle}.\lambda x_e.\lambda i_s.M(i)(x)\ \&\ after\text{-}dinner(i)$

- ✓With $HAVE_{telic}$:

  $[\![\textbf{after dinner}]\!]([\![\textbf{HAVE}_{telic}\ \textbf{Te(cookie)}]\!]) =$
  $[\lambda M_{\langle e\langle st\rangle\rangle}.\lambda x_e.\lambda i_s.M(i)(x)\ \&\ after\text{-}dinner(i)](\lambda z_e.\lambda i'_s.\exists y.cookie(y)\ \&\ eat(y)(z)\text{ at }i')$
  $\rightarrow \lambda x_e.\lambda i_s.[\lambda z_e.\lambda i'_s.\exists y.cookie(y)\ \&\ eat(y)(z)\text{ at }i'](i)(x)\ \&\ after\text{-}dinner(i)$
  $\rightarrow \lambda x_e.\lambda i_s.[\lambda i'_s.\exists y.cookie(y)\ \&\ eat(y)(x)\text{ at }i'](i)\ \&\ after\text{-}dinner(i)$
  $\rightarrow \lambda x_e.\lambda i_s.\exists y.cookie(y)\ \&\ eat(y)(x)\text{ at }i.\ \&\ after\text{-}dinner(i)$

- * With $HAVE_{stative}$:

  $[\![\textbf{after dinner}]\!]([\![\textbf{HAVE}_{stative}\ \textbf{Ctr(cookie)}]\!])=$
  $[\lambda M_{\langle e\langle st\rangle\rangle}.\lambda x_e.\lambda i_s.M(i)(x)\ \&\ after\text{-}dinner(i)](\lambda z_e.\exists y.cookie(y)\ \&\ control(y)(z))$
  $\leftarrow$ type mismatch

5 Conclusion

All phonologically-null *have*-causes are **not** alike

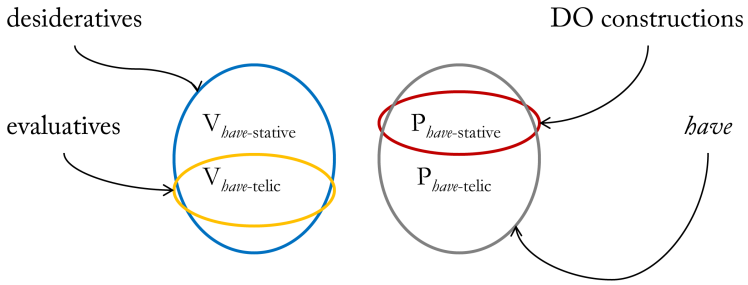
Proposal:

- Maintain V/P distinction in Marušič and Žaucer (2006)
  - DO constructions – P
  - desideratives – V
  - ADD: evaluatives – V (based on verbal behavior, Section 2)
- Maintain two different null verbs for desideratives in Marušič and Žaucer (2006), renamed $V_{stative}$, V_{telic} (stative allows control relation and others, telic allows typical-use relation)

- Propose two prepositional forms, $P_{stative}$, P_{telic}
- Propose:

– *have* selects $P_{stative}$, P_{telic}
– DO constructions select $P_{stative}$ only (lack typical-use relation)
– desideratives select $V_{stative}$, V_{telic}
– evaluatives select V_{telic} only (lack control relation and others)

} matches (50)



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