Antipronominality as a reconstruction effect

LING 252 · Ethan Poole · 22 April 2020

1 Introduction

- ***Antipronominality***
  Postal (1994) observes that one common property of APCs is that they reject pronouns like *it*, a property that he labels ANTIPRONOMINALITY:[1]

  (1) *There is **it** in the pantry.

∗ ***Postal's proposal***
He proposes that A-extractions and B-extractions differ in what they leave behind in the launching site of movement:

- A-extractions leave a *trace*:

  (2) ✓**What**$_1$ is there t_1 in the pantry?
  ↑—*A-ext*—┘

- B-extractions leave a *covert resumptive pronoun*:

  (3) *[**A potato**]$_1$, there is $\mathbb{RP}_1$ in the pantry.
  ↑—*B-ext*—┘

⇒ According to this analysis, B-extractions cannot target an APC because what they leave behind, viz. a pronoun, violates antipronominality.

❶ ***Problem #1: Why are APCs antipronominal?***

- There is no explanation for *why* APCs are antipronominal.
- This in turn calls into question accounting for the A/B-extraction distinction in terms of pronouns when antipronominality lacks an explanation.
- Under Postal's analysis, the set of APCs and the division of movement types are arbitrary and amount to little more than two lists.

❷ ***Problem #2: Some pronouns are allowed***
Antipronominality in APCs does not extend to strong pronouns like *that*:[2]

(4) a. **Change-of-color verbs**
Megan liked *the color magenta*, so she painted the house {*__it__ / ✓__that__}.

b. **Naming verbs**
Irene liked *the name Snowflake*, and she called the cat {*__it__ / ✓__that__}.

c. **Predicate nominals**
Erika wanted to become *a teacher*, and she became {*__it__ / ✓__that__}.

⇒ Thus, antipronominality is not as simple as a ban on pronouns.

❸ ***Problem #3: Antipronominality does not entail being an APC***
Postal himself observes that there are syntactic environments that block pronouns, but nevertheless allow both A-extractions and B-extractions:

[1] Here, I am using the term 'APC' descriptively to refer to those positions that allow A-extraction gaps but not B-extraction gaps.

[2] This excludes existential constructions, which independently prohibit all pronouns because of the Definiteness Restriction.

(5) a. **Baseline**
*Katie attends Yale$_1$, but Amanda wouldn't even apply to **it**$_1$.

b. ***Wh*-movement**
[**What university**]$_1$ did Katie apply to ___$_1$?

c. **Topicalization**
Yale$_1$, Katie would never apply to ___$_1$.

- If the reason that B-extractions cannot target APCs is that they violate antipronominality, then (5c) should be ungrammatical.[3]

2 APCs are property positions

- Poole (2017) argues that the common denominator unifying APCs is that they host DPs that denote PROPERTIES:[4]

(6) **Property generalization**
DPs in APCs denote properties (semantic type $\langle e, t \rangle$).

- ***Shortcut assumptions (in the interest of time)***
  - The color term of a change-of-color verb denotes a property, because these verbs are textbook examples of resultative constructions.[5]
  - Predicate nominals denote properties, as this is standard.[6]

2.1 Existential constructions

- ***Definiteness Restriction***
The pivot of an existential construction is famously subject to the Definiteness Restriction (DR):[7]

(7) a. **Acceptable pivots**
There is/are {**a** / **two** / **many** / **no**} **potato(es)** in the pantry.

b. **No quantificational DPs**
*There is/are {**every** / **most** / **both**} **potato(es)** in the pantry.

c. **No definite descriptions**
*There is { **the potato** / **it** / **Mr. Potato Head**} in the pantry.

- DPs that can occur as the pivot are WEAK, while DPs that cannot are STRONG.
- The standard approach to the DR is to attribute the weak–strong distinction to a semantic property of determiners.[8]
- ***Problems with standard approaches***
  1. They never explain *why* existential constructions care about a particular semantic property of determiners.
  2. There are some well-documented counterexamples to an analysis of the DR in terms of determiner semantics.[9]

[3] As we saw, Postal actually proposes that antipronominality is specifically a prohibition on covert resumptives and that this asymmetrically entails prohibiting overt pronouns. Robbing his analysis of its independent support, this amounts to little more than restating that B-extractions cannot target ACPs.

[4] For simplicity, I treat properties in purely extensional terms, which reduces them to sets of entities.

[5] E.g. Kratzer (2005)

[6] Montague (1973); Williams (1983); Partee (1986)

[7] Milsark (1974, 1977)

[8] E.g. Barwise and Cooper (1981); Keenan (1987)

[9] McNally (1997, 1998)

❶ ***Quantifying over nonparticulars***
A necessarily quantificational DP headed by a strong determiner can be the pivot if it quantifies over nonparticulars:

(8) a. There was **every kind of doctor** at the convention.

b. *There was **every doctor** at the convention. [McNally 1998:358]

❷ ***Indefinite possessives***
Definite descriptions can be the pivot if they are indefinite possessives:[10]

[10] See also Wilkinson (1991).

(9) a. There was **the mother of a student** waiting outside.

b. There was **someone's book** lying on the desk. [McNally 1998:373]

❸ ***List existentials***
Definite descriptions can also be the pivot in so-called "list existentials":[11]

[11] Interestingly, Keenan (2003) points out that these usages do not preserve under negation or in polar questions.

(10) a. A: What shall we dig up this year?
B: Well, there are **the peonies**. [McNally 1998:366]

b. There's always Canada.

c. There's the fattest cat I've seen.

⇒ Any analysis that outright bans certain determiners like *every* and *the* will undergenerate in (8)–(10).

⇒ ***McNally's analysis of existentials***

– McNally (1997, 1998) argues that the DR is about the meaning of the DP as a whole, not just the determiner. For her, the DR is part semantic and part pragmatic.

– ***Semantic restriction***
The pivot must have a licit *property-type* denotation. An existential construction means that the property denoted by the pivot is INSTANTIATED:[12,13]

[12] See also Williams (1994).

(11) For all models $\mathcal{M}$, $[\![\text{NP}]\!]^{\mathcal{M},g} \in [\![\text{There be}]\!]^{\mathcal{M},g}$ iff $[\![\text{NP}]\!]^{\mathcal{M},g}$ is nonempty. [McNally 1998:376]

[13] For some problematic cases for this kind of semantics, see Francez (2007).

– ***Pragmatic restriction***
The pivot must introduce a new discourse referent.[14]

[14] This constraint is fairly simple, but I think that it could easily be swapped for something more elaborate (e.g. Abbott 1993; Ward and Birner 1995; Zucchi 1995).

- The pragmatic restriction prohibits definite descriptions. McNally argues that it is reasonable for a pragmatic requirement to be relaxed under special circumstances, e.g. in list existentials.

✳ ***Existential constructions → Property-denoting DP***
The semantics of existentials requires that the pivot denote a property, which in turn restricts the kinds of quantificational DPs that can occur as the pivot because not every quantificational DP has a licit property-type denotation.

(12) a. *some NP* $\Rightarrow_{\text{shift}}$ ✓property denotation $\Rightarrow_{(11)}$ ✓pivot

b. *every NP* $\not\Rightarrow_{\text{shift}}$ ✗property denotation $\not\Rightarrow_{(11)}$ ✗pivot

c. *the NP* $\Rightarrow_{\text{shift}}$ ✓property denotation $\Rightarrow_{(11)}$ ✓pivot

2.2 Naming verbs

- The italicized proper names below do not refer to individuals with those names, but rather to the names themselves:

  (13) a. Irene **called** the cat *Snowball*.

  b. Helen **nicknamed** the dog *Odie*.

  c. The priest **baptized** the child *Brigid*.

  d. I am **named** *Ethan*.

  (14) { **What** / ***Who** }$_1$ did the priest baptize the child ___$_1$?

- ***Not just quotation***
  Proper names in name positions refer to the sequence of sounds that make up the name (or possibly the orthography). However, it is not possible to reduce them to (pure) unanalyzable quotation:

  (15) a. **(The word)** *four* has four letters.

  b. Irene nicknamed the dog **(*the name)** *Odie*.

✳ ***Name argument → Property-denoting DP***
Matushansky (2008) argues that the name argument of a naming verb denotes a PROPERTY. Let us look at a few of her arguments.

❶ ***Definite articles***
In languages where proper names can appear with a definite article, they cannot do so with naming verbs:

(16) a. Ich habe **den Karl** gesehen. [German]
I have the Karl seen
'I have seen Karl'

b. Ich habe ihn **(*den)** Karl genannt.
I have him the Karl called
'I called him Karl' [Matushansky 2008:580]

❷ ***Predicative marking***
In some languages, the name argument is overtly marked as a predicate with a dedicated predicative particle:

(17) a. Mae Siôn ***(yn)** ddedwydd. [Welsh]
is Siôn PRT happy
'Siôn is happy'

b. Y mae Siôn **yn** feddyg.
PRT is Siôn PRT doctor
'Siôn is a doctor'

c. Enwyd ef **yn Siôn** arôl ei dad.
name.PASS he PRT Siôn after his father
'He is named Siôn after his father' [Matushansky 2008:582]

❸ ***Predicative case***

In languages where predicates bear a certain morphological case, the name argument bears this case:

(18) a. Me maalasi-mme seinä-n **keltaise-ksi** [Finnish]
we painted-1PL wall-ACC yellow-TRANS
'We painted a/the wall yellow'

b. Me kutsu-mme William Gatesi-a **Billi-ksi**
we call-1PL William Gates-PTV Billy-TRANS
'We call William Gates Billy' [Matushansky 2008:584]

⇒ ***Matushansky's analysis of naming verbs***

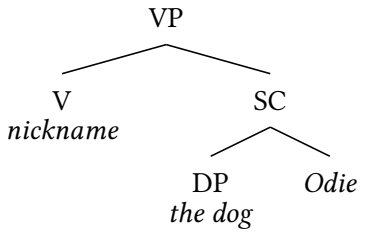
– Proper names are two-place functions that take an individual x and a NAMING CONVENTION R as its arguments:[15]

(19) $[\![\text{Odie}]\!] = \lambda x_e\, \lambda \mathrm{R}_{\langle e,\langle n,t\rangle\rangle}\, .\, \mathrm{R}(x)([\text{owdij}])$

[15] n is a sort of semantic type e; a phonological string.

– Ordinarily, the naming convention is supplied contextually. However, with a naming verb, the naming convention is supplied by the verb itself:

(20) Helen nicknamed the dog Odie.



a. $[\![\text{nickname}]\!] = \lambda f_{\langle\langle e,\langle n,t\rangle\rangle,t\rangle}\, \lambda w\, .\, \exists \mathrm{R}[\textsc{nickname}(w)(\mathrm{R}) \wedge f(\mathrm{R})]$

b. $[\![\text{SC}]\!] = [\![\text{Odie}]\!]\,([\![\text{the dog}]\!]) = \lambda \mathrm{R}_{\langle e,\langle n,t\rangle\rangle}\, .\, \mathrm{R}(\text{the dog})([\text{owdij}])$

c. $[\![\text{VP}]\!] = [\![\text{nickname}]\!]\,([\![\text{SC}]\!])$
$= \lambda w\, .\, \exists \mathrm{R}[\textsc{nickname}(w)(\mathrm{R}) \wedge \mathrm{R}(\text{the dog})([\text{owdij}])]$

2.3 Interim summary

- In sum, the pivot of an existential construction and the name argument of a naming verb denote properties:

(21) **PROPERTY GENERALIZATION**
DPs in APCs denote properties (semantic type $\langle e, t\rangle$).

3 Scope and reconstruction

- Poole (2017) also argues that a given step of movement cannot target an APC if it shifts the scope of the moved DP:

(22) **SCOPE GENERALIZATION**
Scope-shifting movement cannot target an APC.
⇝ Movement targeting an APC must reconstruct.

3.1 Topicalization

✳ ***Generalization***
Topicalization in English obligatorily shifts the scope of the moved DP.

- ***Baseline***
  Consider the possible interpretations of the baseline sentence below, which has narrow-scope and wide-scope readings of *a student* w.r.t to *every teacher*:

  (23) *Every teacher* likes **a (different) student** in the first week.

  a. **Narrow-scope reading** every ≫ a
  For every teacher x, there is a student y such that x likes y.

  b. **Wide-scope reading** a ≫ every
  There is a single student y such that for every teacher x, x likes y.

- Crucially, in a scenario where the student is a different student for each teacher, only the narrow-scope reading is true.

- ***Target sentence***
  Topicalizing *a student* in (23) bleeds the narrow-scope reading:

  (24) [**A (#different) student**]$_1$, *every teacher* likes ___$_1$ in the first week.
  *every ≫ a; a ≫ every

- The only interpretation of (24) is the wide-scope reading. Consequently, (24) is true iff there is a single student that every teacher likes. It is false if the student is a different student for each teacher.

- ***Additional examples***

  (25) a. *No one* touched **every dessert** at the party. no ≫ every; ?every ≫ no

  b. [**Every dessert**]$_1$, *no one* touched ___$_1$ at the party.[16]
  *no ≫ every; every ≫ no

  [16] Paraphrase: No dessert was touched at the party.

  (26) Context: During the school year, students have to do some science projects and some book reports to advance to the next grade.

  A. What about science projects and book reports?
  When do students have to do *those*?

  B. ✓Every student has to do [AT LEAST TWO BOOK REPORTS] in [THE FALL SEMESTER].

  C. #[AT LEAST TWO BOOK REPORTS] . . . every student has to do in [THE FALL SEMESTER].

  D. ✓[AT LEAST TWO BOOK REPORTS] . . . the class does together in [THE FALL SEMESTER].

⇒ In sum, topicalization obligatorily shifts scope. According to the scope generalization, this is the reason why it cannot target an APC:

(27) [$_{\text{TopicP}}$ ✓$_1$ Topic^0 [. . . [. . . *$_1$ . . .]]] ⇝ Cannot target APCs
topicalization

3.2 *Wh*-movement

✳ ***Generalization***
Wh-movement optionally shifts the scope of the moved DP.

- ***How many-questions—yet again***
The familiar scope ambiguity in (28) is the result of the fact that *wh*-movement only optionally shifts scope.

(28) [**How many books**]$_1$ should Nina read ___$_1$ this summer?

a. **Wide-scope reading** how many ≫ should
For what number *n*: There are *n*-many particular books *x* such that Nina should read *x* this summer.

b. **Narrow-scope reading** should ≫ how many
For what number *n*: It is necessary for there to be *n*-many books *x* such that Nina reads *x* this summer.

⇒ ***Wh-movement from an APC cannot shift scope***
Even though *wh*-movement can ordinarily shift scope, when it targets an APC, scope shifting is rendered impossible:

(29) a. **Existential constructions** *h.m. ≫ should; should ≫ h.m.
[**How many books**]$_1$ *should* there be ___$_1$ on the table?

b. **Change-of-color verbs** *h.m. ≫ should; should ≫ h.m.
[**How many colors**]$_1$ *should* Nina paint the house ___$_1$?

c. **Naming verbs** *h.m. ≫ should; should ≫ h.m.
[**How many nicknames**]$_1$ *should* Nina call the cat ___$_1$?

d. **Predicate nominals** *h.m. ≫ should; should ≫ h.m.
[**How many kinds of teacher**]$_1$ *should* Nina become ___$_1$?

- To appreciate this fact, let us take a closer look at existential constructions, which we can contrast with a corresponding copula construction:

(30) [**How many questions**]$_1$ *should* there be ___$_1$ on the exam?
*how many ≫ should; should ≫ how many

(31) [**How many questions**]$_1$ *should* ___$_1$ be on the exam?
how many ≫ should; should ≫ how many

(32) a. **Narrow-scope paraphrase** ✓existential (30); ✓copula (31)
What is the number such that it is necessary that that many questions be on the exam?

b. **Wide-scope paraphrase** *existential (30); ✓copula (31)
How many questions are there such that it is necessary that they be on the exam?

- Consider the appropriateness of (30) and (31) in two different scenarios where I am a TA and the professor is preparing the final exam:

– ***Scenario #1***
The professor wants to know the number of questions that I think the exam should have so that the grading is manageable on my end.
✓existential (30); ✓copula (31)

– ***Scenario #2***
The professor has asked me to pick out from a workbook some questions that I think would be good exam questions. She wants to know the number of questions that I have selected so that she can gauge the amount of time that the exam room should be reserved for.
#existential (30); ✓copula (31)

⇒ This difference follows from the fact that *wh*-movement must reconstruct when it targets an APC—here the pivot of an existential construction—thereby forcing a narrow-scope reading of *how many*.

- ***Additional example with change-of-color verbs***[17]

(33) a. **APC** *how many ≫ want; want ≫ how many
[**How many colors**]$_1$ does Nina *want* [to paint the wall ___$_1$]?

b. **Non-APC** how many ≫ want; want ≫ how many
[**How many colors**]$_1$ does Nina *want* [to use ___$_1$ for painting the wall]?

(34) Nina has the desire to use two colors of paint on her wall in order to make it striped. Nina is also colorblind. She goes to the store and buys two cans of paint, which she believes to be different colors. However, unbeknownst to her, they are in fact the same color. She wants to use the paints that she bought at the store to paint the wall.

a. **De dicto construal:** Two colors ✓(33a); ✓(33b)

b. **De re construal:** One color *(33a); ✓(33b)

[17] Actually, this is the reverse of how colorblindness works, but please humor me.

- ***Wh-islands***
Recall that *wh*-islands block scope reconstruction. Since APCs force narrow scope and *wh*-islands force wide scope, the two should be mutually exclusive. This prediction is borne out:[18]

(35) **Existential constructions**

a. ?[**Which table**]$_1$ do you wonder [whether there are books on ___$_1$]?

b. *[**How many books**]$_1$ do you wonder [whether there are ___$_1$ on the table]?

(36) **Change-of-color verbs**

a. ?[**Which house**]$_1$ do you wonder [whether Nina painted ___$_1$ that ugly green]?

b. *[**Which color**]$_1$ do you wonder [whether Nina painted the house ___$_1$]?

(37) **Naming verbs**

a. ?[**Which cat**]$_1$ do you wonder [whether Nina calls ___$_1$ Garfield]?

b. *[**Which nickname**]$_1$ do you wonder [whether Nina calls the cat ___$_1$]?

[18] Postal (1994) observes this fact, but does not connect it to scope or reconstruction.

(38) **Predicate nominals**

a. ?[**Which student**]$_1$ do you wonder [whether Nina made a math teacher out of ___$_1$]?

b. *[**Which kind of teacher**]$_1$ do you wonder [whether Nina made ___$_1$ out of Mary]?

- ***Negative islands***

The same pattern of ungrammaticality can be observed with negative islands:[19,20]

(39) [**How many books**]$_1$ did Nina not read ___$_1$?

a. **Wide-scope reading** how many ≫ not
For what number *n*: There are *n*-many particular books *x* such that Nina did not read *x*.

b. **Narrow-scope reading** not ≫ how many
*For what number *n*: It is not the case that Nina read *n*-many books.

(40) **Existential constructions**

a. ✓[**How many tables**]$_1$ aren't there books on ___$_1$?

b. *[**How many books**]$_1$ aren't there ___$_1$ on the table?

c. ✓[**How many tables**]$_1$ did no one want there to be books on ___$_1$?

d. *[**How many books**]$_1$ did no one want there to be ___$_1$ on the table?

(41) **Change-of-color verbs**

a. ✓[**How many houses**]$_1$ did no one paint ___$_1$ lime green?

b. *[**How many colors**]$_1$ did no one paint their house ___$_1$?

(42) **Naming verbs**

a. ✓[**How many cats**]$_1$ did no one call ___$_1$ Garfield?

b. *[**How many nicknames**]$_1$ did no one call their cat ___$_1$?

(43) **Predicate nominals**

a. ✓[**How many students**]$_1$ did no one make a math teacher out of ___$_1$?

b. *[**How many kinds of teacher**]$_1$ did no one make ___$_1$ out of a student?

⇒ In sum, *wh*-movement can successfully target an APC only when it does not shift scope. When *wh*-movement does shift scope, it patterns as a B-extraction in that such extraction from an APC is ungrammatical:

(44) ***Wh*-movement**

a. **Reconstructed derivation**
[Q ___$_1$ . . . [. . . ✓$_1$ . . .]] ⇝ Can target APCs
wh

b. **Scope-shifted derivation**
[Q ✓$_1$ . . . [. . . ___$_1$ . . .]] ⇝ Cannot target APCs
wh

[19] Kroch (1989); Cinque (1990); Rullmann (1995)

[20] These judgements are more flimsy. With simple clausal negation, a kind of emphatic reading survives. Changing *how many NP* to *how many of the NP* seems to render all of them okay.

3.3 Relative clauses

- Restrictive RCs allow the nominal head to reconstruct, but appositive RCs do not:[21]

[21] Examples based on Bianchi (1999).

(45) **Restrictive RCs** ✓two ≫ every; ✓every ≫ two
I called the **two patients**$_1$ [$_{RC}$ that *every doctor* will examine ___$_1$].

(46) **Appositive RCs** ✓two ≫ every; *every ≫ two
I called the **two patients**$_1$, [$_{RC}$ which *every doctor* will examine ___$_1$].

⇒ Thus, restrictive-RC formation allows scope shifting, while appositive-RC formation does not.

- To create distinct low and high readings in restrictive RCs, we must turn to adjectival modifiers like *first* and *only*:[22]

[22] Bhatt (2002)

(47) the **first book**$_1$ [$_{RC}$ that John said Tolstoy had written ___$_1$]

a. **Low reading** say ≫ first

i. the x such that John said that the first book that Tolstoy had written was x

ii. Scenario: John said that the first book that Tolstoy had written was *War and Peace*. Hence, the NP is *War and Peace*. (i.e. order of *writing* matters, order of *saying* is irrelevant)

b. **High reading** first ≫ say

i. the first book about which John said that Tolstoy had written it

ii. Scenario: In 1990, John said that Tolstoy had written *Anna Karenina*; in 1991, John said that Tolstoy had written *War and Peace*. Hence, the NP is *Anna Karenina*. (i.e. order of *saying* matters, order of *writing* is irrelevant) [Bhatt 2002:57]

(48) the **only book**$_1$ [$_{RC}$ that John said that Tolstoy had written ___$_1$]

a. **Low reading** say ≫ only
the x such that John said that 'x is the only book that Tolstoy wrote'

b. **High reading** only ≫ say
the only book about which John said that Tolstoy had written it
[Bhatt 2002:57]

- Crucially, when a restrictive RC is formed on an APC, only the low reading of the adjectival modifier survives:[23]

[23] These judgements are delicate and complicated.

(49) **Existential constructions**
the **only books**$_1$ [$_{RC}$ that John said (that) there were ___$_1$ on the table]

a. **Low reading** say ≫ only
✓the x such that John said that 'x are the only books that there are on the table'

b. **High reading** only ≫ say
*the only books about which John said that there (them) were on the table

(50) **Change-of-color verbs**
the **first color**$_1$ [$_{RC}$ that John said (that) Mary had painted the house ___$_1$]

a. **Low reading** say ≫ first
✓the *x* such that John said that '*x* is the first color that Mary had painted the house'

b. **High reading** first ≫ say
*the first color about which John said that Mary had painted the house (that)

(51) **Naming verbs**
the **first name**$_1$ [$_{RC}$ that John said (that) Mary had nicknamed the cat ___$_1$]

a. **Low reading** say ≫ first
✓the *x* such that John said that '*x* is the first name that Mary had nicknamed the cat'

b. **High reading** first ≫ say
*the first name about which John said that Mary had nicknamed the cat (that)

(52) **Predicate nominals**
the **first kind of teacher**$_1$ [$_{RC}$ that John said (that) Mary had become ___$_1$]

a. **Low reading** say ≫ first
✓the *x* such that John said that '*x* is the first kind of teacher that Mary had become'

b. **High reading** first ≫ say
*the first kind of teacher about which John said that Mary had become (that)

- In sum, restrictive and appositive RCs mirror the asymmetry between *wh*-movement and topicalization:

(53) **Restrictive relative clauses**

a. [$_{DP}$ NP λ_1 [$_{CP}$ ___$_1$ . . . [. . . ✓$_1$ . . .]]] ⇝ Can target APCs

b. [$_{DP}$ NP λ_1 [$_{CP}$ ✓$_1$ . . . [. . . ___$_1$ . . .]]] ⇝ Cannot target APCs

(54) **Appositive relative clauses**
[$_{DP}$ NP λ_1 [$_{CP}$ ✓$_1$ . . . [. . . *$_1$ . . .]]] ⇝ Cannot target APCs

4 Poole's (2017) analysis

- ***Interim summary***

(55) a. **Property generalization**
DPs in APCs denote properties (semantic type $\langle e, t \rangle$).

b. **Scope generalization**
Scope-shifting movement cannot target an APC.
$\rightsquigarrow$ Movement targeting an APC must reconstruct.

- ***Scope shifting $\not\Rightarrow$ APCs***
Scope-shifting movement requires a trace of type e. This trace is incompatible with APCs because it does not provide the expected property meaning ($\langle e, t \rangle$).

(56) *[DP_1 λx_e … [… [x_e]$_{\text{APC}}$ …]]
type e trace

- ***Reconstruction $\Rightarrow$ APCs***
On the other hand, because movement that does not shift scope reconstructs, if a DP would not ordinarily violate the property-requirement of an APC, then it will not do so under reconstruction either:

(57) ✓[___$_1$ … [… [DP_1]$_{\text{APC}}$ …]]
reconstruct

✳ According to this analysis, APCs are an instance where movement must reconstruct in order to avoid a semantic-type mismatch that would occur if the moved DP were not interpreted in its base-generated position.

– B-extractions are thus unable to target an APC at all because they cannot reconstruct:

(58) **Topicalization**
*[$_{\text{TopicP}}$ DP_1 λx_e [Topic^0 … [… [x_e]$_{\text{APC}}$ …]]]

– A-extractions, on the other hand, can target an APC, but only when they reconstruct into that APC:

(59) ***Wh*-movement**

a. ✓[Q ___$_1$ … [… [DP_1]$_{\text{APC}}$ …]]
reconstruct

b. *[Q DP_1 λx_e … [… [x_e]$_{\text{APC}}$ …]]

⇒ ***We can have our cake and eat it too***
Unlike Postal's (1994) analysis of APCs, this analysis does not appeal to separate primitive movement operations.

- Rather, the APC asymmetry follows from the property-type requirement of APCs being incompatible with the type-*e* trace that a step of scope-shifting movement leaves in the APC at LF.
- More importantly, *reconstruction crosscuts movement types.*
- Assigning separate primitive operations to B-extractions and A-extractions cannot capture this pattern, in particular that A-extractions cannot target APCs when they do not reconstruct.

- ***A simpler generalization***
  - The property and scope generalizations are in fact interconnected: It is precisely because APCs host property-type DPs that they cannot be targeted by scope-shifting movement.
  - That is, the property generalization *implies* the scope generalization.
  - Therefore, the restriction on APCs can be stated more generally:

    (60) **APC Restriction**
    $^{*}[\ x\ ]_{\text{APC}}$, where x is an element of type e

- ***Antipronominality is also about propertyhood***
  (60) has the advantage of being more general than a constraint on movement and thus also captures why APCs are antipronominal:
  - Weak pronouns like *it* cannot denote a property and hence violate (60).
  - Strong pronouns like *that*, on the other hand, face no such problem because they can denote a property.
  - This fact can be observed independently using the verb *consider*, whose second argument must denote a property. While a weak pronoun is ungrammatical with *consider*, a strong pronoun is not:

    (61) **Weak pronouns cannot denote a property**
    John thinks that he is a success, but no one else considers him { ✓**that** / *__it__ }.

4.1 No property traces

✳ The ungrammaticality of scope-shifting movement targeting an APC indicates that movement cannot map onto a λ-abstraction–variable relation (i.e. a trace) ranging over properties, where the moved DP denotes either a property or a generalized quantifier over properties:

(62) **Property traces are ungrammatical**

a. $^{*}[\ \text{DP}_{\langle e,t\rangle} \quad \lambda f_{et}\ [\ \ldots f \ldots\ ]\ ]$

b. $^{*}[\ \text{DP}_{\langle\langle et,t\rangle,t\rangle}\ \lambda f_{et}\ [\ \ldots f \ldots\ ]\ ]$

- Were either option available, scope-shifting movement could then be salvaged when targeting APCs, and we would not observe ungrammaticality.

- We know that (62b) is unavailable because even in instances that involve quantification over properties, these quantifiers over properties cannot take scope over other scope-bearing elements in the sentence:

  (63) a. There was*n't* **every kind of doctor** at the convention.
  not ≫ every; *every ≫ not

  b. There was*n't* **only one kind of doctor** at the convention.
  not ≫ only one; *only one ≫ not

- This unavailability of wide-scope is expected if (62b), where a generalized quantifier over properties has undergone QR, is unavailable:

  (64) *[**every kind of doctor**]$_{\langle\langle et,t\rangle,t\rangle}$ $\lambda f_{\langle e,t\rangle}$ [there be $f_{\langle e,t\rangle}$ at the convention]
  (QR)

- Moreover, if a property trace is unavailable in (62b), then we can generalize that it is also unavailable in (62a).

⇒ *The syntax–semantics mapping does not permit movement to map onto a trace over properties.*

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