

Copular sentences and (some reasons) why you should care

Caroline Heycock

Nantes, 20th September 2023

1 Introduction

- (1) WORKING DEFINITION OF A COPULAR CONSTRUCTION
A clause where the PREDICATE is not the projection of a lexical verb.

NB: I'll generally use "DP" to refer to nominal phrases, but for at least *some* of this discussion it won't be crucial whether these phrases are headed by D or rather by N.

- | | | | |
|-----|----|--|-----------------------|
| (2) | a. | Joan and Jim are African. | DP be AP |
| | b. | Joan and Jim are Africans. | DP be DP[indef] |
| | c. | Joan and Jim are the best applicants for the job. | DP be DP[def] |
| | d. | The best applicants for the job are Joan and Jim. | DP be DP[proper name] |
| | e. | Joan and Jim are at the aquarium. | DP be PP |
| | f. | Ambitious is ambitious. | AP be AP |
| | g. | Alongside the lake is the most expensive place to buy property. | PP be DP |
| | h. | That they are artists is astonishing. | CP be AP |
| | i. | What they did was arm the rebels. | CP?/DP? be VP |
| | j. | Arm the rebels was what they did. | VP be CP?/DP? |

Some of the aspects that have exercised syntacticians:

- Typically, full noun phrases (DPs) act as **arguments**. But in copular clauses they seem to be able to act as predicates. How come?
- Some cases seem to be **reversible**—compare (2c,d) and (2i,j). But not all are:

- (3) c. Joan and Jim are the best applicants for the job.
d. The best applicants for the job are Joan and Jim.

- (3) i. What they did was arm the rebels.
j. Arm the rebels was what they did.

- (3) a. Joan and Jim are African (= (2a))
b. *African are Joan and Jim.

- (4) a. Joan and Jim are Africans (= (2b))
b. ?*Africans are Joan and Jim.

- In some contexts it seems that the copula is **optional**:

- (5) a. I consider [that Barbara is belligerent]
In my judgment, the proposition "Barbara is belligerent" is true

- b. I consider [Barbara belligerent]
In my judgment, the proposition "Barbara is belligerent" is true
- (6) a. I consider [that Jo is at the peak of her career]
In my judgment, the proposition "Jo is at the peak of her career" is true
- b. I consider [Jo at the peak of her career]
In my judgment, the proposition "Jo is at the peak of her career" is true
- But in others it seems to be **required**:
 - (7) a. I consider that the best place to buy property is along State St.
In my judgment, the proposition "The best place to buy property is along State St" is true
 - b. *I consider the best place to buy property along State St.
Intended reading: *In my judgment, the proposition "The best place to buy property is along State St" is true*
- The copula seems different from lexical verbs:
 - (8) a. The Davidsons were Scots.
 - b. The Davidsons wore skirts.

For example, in German the **case** properties are different:

- (9) Ich sah **den** Gewinner. [German]
I.NOM saw the.M.SG.**acc** winner
I saw the winner.
- (10) Ich war **der** Gewinner. [German]
I.NOM was the.M.SG.**nom** winner
I was the winner.

- Notice though that Present Day English is different from German here. PDE only has morphological case on (some) pronouns, of course. To the extent that pronouns can be the second DP in a copular clause in PDE, they are never nominative:

- (11) a. In her dream, she was me/*I.
- b. The only person who can help you is me/*I

- In German, on the other hand, both DPs are nominative. So which is the subject? Will **agreement** tell us?

- (12) Ich bin/*ist der Gewinner [German]
I.NOM am/*is the.M.SG.NOM winner
I am/*is the winner.
- (13) Der Gewinner bin/*ist ich. [German]
the.M.S.NOM winner am/*is I.NOM
The winner is/*am me.

- In other languages, even in a root clause we don't need any copula at all:

- (14) a. Vera assistent. [Russian]
Vera assistant.NOM
'Vera is an assistant.'
- b. Zaydun waziirun [Arabic]
Zaydun.NOM minister.NOM
'Zaydun is a minister.'

Whether or not a copula appears may depend on the tense of the clause (e.g. Russian, Arabic, Hebrew), or on the category of the predicate (e.g. Mandarin Chinese, as in (15), from Cheng 2021):

- (15) a. Mǎike *(shì) xuéshēng. [Mandarin Chinese]
Mike *(COP) student
'Mike is a student.'
- b. Mǎike *(shì) hěn shuài / zài jiā. [Mandarin Chinese]
Mike (*COP) very handsome / at home
'Mike is handsome/at home.'

- And in some languages what we find is something that seems to be derived from a pronoun or demonstrative. E.g. Polish:

- (16) a. Ci zawodnicy są drużyną piłkarską.
these players.3.PL.NOM.VIR be.PRES.3.PL team.FEM.SG.INSTR football
These players are a football team.
- b. Ci zawodnicy to drużyna piłkarska.
these players.3.PL.NOM.VIR 'to' team.FEM.SG.NOM football
These players are a football team.
- c. to dziecko
this child.NEU.SG
this child

So there are obviously a whole slew of questions here about how to first to characterize and then to derive some of the above distinctions, both within and between languages.

Today I'm going to focus (nearly all of the time) on BINOMINAL copular clauses: clauses where the "predicate" is an NP/DP, rather than e.g. an AP or a PP.

2 A 3-way categorisation as a starting point

NB: There is a lot of variation in the literature as to the right way to divide up copular clauses. Many of you will be familiar with the following categorization, into PREDICATIVE/PREDICATIONAL, EQUATIVE/EQUATIONAL, and SPECIFICATIONAL copular clauses. This is a tradition that dates back to the amazing dissertation of Higgins (1973), although I have left aside one of his categories. Unfortunately you cannot assume that any given author is using terms in the same way as any other given author, and definitions are often not made explicit, so always bear this in mind when reading!

2.1 Predication

PREDICATIVE/PREDICATIONAL copular sentences are often thought of as the "default" type of copular sentence.

- (17) a. Julia is tired/a teacher/the winner/in a terrible temper.
b. That they will win is surprising/a surprise/the only possible conclusion/in doubt.

Commonly used diagnostics: **coordination**, **small clauses**, inability to host **non-restrictive relatives introduced by *who***.

- (18) a. Julia is tired.
b. Julia is a teacher and (therefore) tired.
c. Julia is the winner and very pleased with that result.
d. Julie is tired and in a terrible temper.
- (19) a. With Julia {tired/an old enemy of the referee/the referee/in that kind of mood}, our team is unlikely to do well.
b. I consider Julia {charming/?tired/a good candidate/the winner/at the peak of her career/?in a bad mood}.
- (20) a. *Tired is Julia.
b. ?*A teacher is Julia.
c. The winner is Julia.
d. *In a terrible temper is Julia.
- (21) a. Julia, who you met yesterday, is a teacher, *who I have known for years.
b. Julia, who you met yesterday, is a teacher, which I would also like to be.

NB: Occurrence in a small clause complement to *consider* is one of the most commonly used diagnostics for predicative status. But *consider* also requires that the proposition expresses a SUBJECTIVE JUDGMENT (Lasnik 2005, 2009, Saebø 2009). Note for example the oddness of (22b–c):

- (22) a. Margaret was on the ship.
b. #They considered Margaret (to be) on the ship.
c. #They considered Margaret (to be) 40 years old.

(22b,c) can be made acceptable if provided with a context which facilitates the coercion of “being on the ship” and “being 40 years old” into properties whose ascription to individuals is a matter of subjective judgment—for example, if we imagine that what is at stake in (22b) is some legalistic definition of when someone counts as being on a ship rather than on land (e.g. for the purposes of extradition), or that the discussion preceding (22c) has concerned the possibility of different societies having different conventions for when a person is considered to have reached a certain age.

2.2 Equation

EQUATIVE/EQUATIONAL/IDENTITY copular sentences are typically assumed to be completely symmetrical (this is what we’d expect given some basic concept of one thing being “equal to” or “the same as” some other thing). The most cited examples are cases which are used to correct the hearer’s belief that two different descriptions apply to two different people; that is, they equate two INDIVIDUALS. Most are in fact very unnatural in English, but the following seems ok to me:

- (23) You say you prefer Fernando Pessoa to Alberto Caeiro?
a. But Fernando Pessoa IS Alberto Caeiro!
b. But Alberto Caeiro IS Fernando Pessoa!

However, we might also want to think about cases where what is equated are not (simple) individuals, but masses, abstract individuals, or properties:

- (24) a. Gold is gold
b. War is (not) peace.
c. Happy is happy.

Just sticking with individuals, some aspects of distribution (compare to (18)–(21) above):

- (25) ??Fernando Pessoa WAS Alberto Caeiro, and famous under either name.
- (26) a. ?*With Fernando Pessoa Alberto Caeiro, the number of famous Portuguese authors is smaller than I thought.
b. *They considered Fernando Pessoa Alberto Caeiro.
But remember the problem with “consider” as a diagnostic!
- (27) a. Fernando Pessoa, who is famous for his poetry, is Alberto Caeiro, who is best known for his essays.
b. Fernando Pessoa, who is famous for his poetry, is Alberto Caeiro, *which {is best known for his essays/he has been for a long time}.

If you have been within 2 metres of Isabelle Roy or Orin Percus in the last few years, however, you’ll know that many cases that often get lumped together as “equatives” are semantically asymmetric:

- Counterfactual identity

- (28) a. If I were you, . . .
(i) I would leave immediately.
(ii) I wouldn’t do that.
(iii) I would give me a raise.
(iv) I would give myself a raise.
b. If you were me, . . .
(i) I bet you would do the same!
(ii) What would you do?

- Play-acting and dreams (are these the same, linguistically?)

- (29) a. In the play, I will be her/you/the famous linguist Noam Chomsky.
b. In her dream, she was me/you/the famous painter Georgia O’Keeffe

- Mistaken identity

- (30) a. In the darkness, I thought you were your brother!
b. In the darkness, I thought your brother was you!

2.3 Specification

The seminal work for this category of copular sentences is Higgins (1973, 1979).

SPECIFICATIONAL copular sentences look at first glance like equatives:

- (31) a. Today’s winner is Laura.
b. The most efficient woman in the room is Lucy.
c. One of the murderers turned out to be someone I had once met at a party.

- (32) a. *Today's winner is Laura, and totally delighted at the outcome.
b. *The most efficient woman in the room is Lucy, and wearing a blue skirt.
- (33) a. *With the winner Laura, we're all delighted.
b. *I consider the most efficient woman in the room Lucy.
compare:
c. I consider the most efficient woman in the room to be Lucy.

But they have some special features. The **first** nominal shows some signs of not referring to an ordinary individual:

- (34) Today's winner, (??who no one has met,) is Lucy, who we are all delighted for.
- (35) a. Predicational: The woman you met was Jewish, wasn't she/*it?
b. Specificational: The woman most likely to win is Jennifer, isn't ?she/it?

Unusually for English, specificational sentences have a fixed INFORMATION STRUCTURE. We can see this by comparing them to predicational sentences. In predicational sentences, FOCUS assignment is free (either the precopular or the postcopular phrase can be in focus):

- (36) A: Who was the culprit? (John or Bill?)
B: JOHN was the culprit.
- (37) A: What was John? (Was John the culprit or the victim?)
or
A' Tell me something about my cousin John and his role in the crime.
B: John/he was the CULPRIT.

But in a specificational sentence the focus **has** to be on the postcopular DP:

- (38) A: Who was the culprit? (John or Bill?)
B: The culprit was JOHN.
- (39) A: What was John? (Was John the culprit or the victim?)
or
A' Tell me something about my cousin John and his role in the crime.
B: *The CULPRIT was John/him.

Note: the comparison made here is with PREDICATIVE sentences. In recent work, Roy has argued that in fact specificational sentences **share** this property with EQUATIVES; we'll come back to this.

Note: the initial nominal in these sentences appears to be in the ordinary subject position for an English sentence (rather than, e.g. the position of a topicalized element).

- (40) a. Was the culprit Marie?
b. Is the most likely winner Jennifer?

Can be a tricky distinction:

- (41) Sitting under a tree was my cousin Omer.
- (42) Misha is charming.
- (42) Even more charming is his brother Dimitri.
- (42) Also a charming guy is his brother Dimitri.

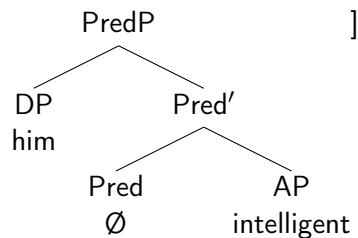
- (42) But the most charming guy is his brother Dimitri.
- (43) a. *Is even more charming his brother Dimitri?
 b. *Is also a charming guy his brother Dimitri?
 c. But is the most charming guy his brother Dimitri?

See the discussion of this for Danish (extensible to other Germanic V2 languages) in Mikkelsen (2005). Note on terminology: my understanding is that the category of copular sentences that Higgins called "specificational" is the same as the category that Andrea Moro (Moro 1997, 2006a), in very influential work, calls "inverse." It's not clear to me whether or not this is Moro's own interpretation of the categories.

3 Are definite predicates syntactically distinct from arguments?

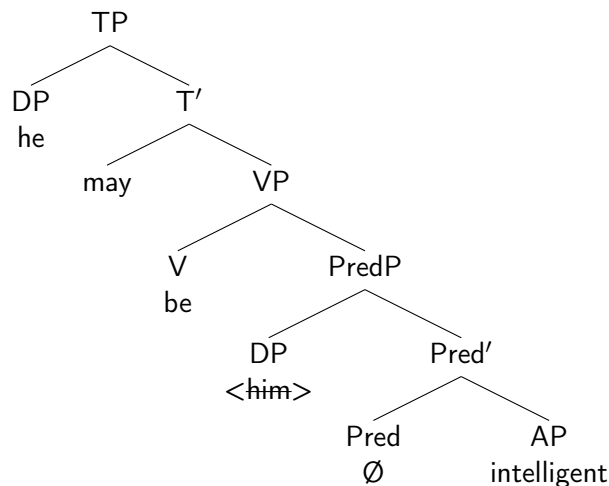
Nearly all recent analyses follow John Bowers' proposal (Bowers 1993, 2001) that there is a FUNCTIONAL head that takes the lexical predicate as its complement, and has the subject in its specifier position. Bowers calls the functional head PR, but lets follow Svenonius (2002) and call it "Pred."

- (44) I consider ...



And the copula is then a "raising predicate" that takes this small clause as its complement:

- (45)



SIDE QUESTION: what exactly is the Pred head doing, given that it seems to be able to combine only with phrases that already translate as predicates?

QUESTION: are definite nominals that appear in predicative copular constructions **syntactically** different from those that appear in argument positions?

Julien (2006): No, there is no empirical evidence for a distinction.

Zamparelli (2000), Roy (2022): Yes. Predicative nominals lack some functional structure present in argument nominals.

Zamparelli's evidence from English possessives. Well-established fact: the maximality presupposition active in argumental possessives—(46a)—is lost in predicative position. Zamparelli's observation: as (46c) shows, maximality reappears when a numeral is present.

- (46) a. ??John's tools are here and John's tools are also there. *maximal*
 b. These are John's tools, and those are also John's tools. *no maximality*
 c. ??These are John's four tools, and those are also John's four tools. *maximal*

Zamparelli's interpretation: there are different layers within the DP, and definiteness/maximality is associated with the largest, outermost layer (the S[trong]DP). An argument has to include this layer, but a predicate does not. In (46b) the possessor is realized at the level normally reserved for numerals, which gets a predicative interpretation and does not trigger definiteness/maximality. The presence of a numeral (which presumably competes for position with 's) forces the possessor into a higher position at the DP level. He therefore concludes that (46c) is an **equative**.

But . . . while definiteness—in the sense of a maximality presupposition—returns with the numeral in examples like (46c), the predicative status is preserved (see also Julien 2005, 2006):

- (47) a. Narcissism and sensitivity to criticism: I consider these John's two main weaknesses.
 b. With bankruptcy or flight their two remaining options, they were near despair.

Cheng et al. (2017) still maintain that when a definite DP has a predicative interpretation, it lacks the highest DP projection. Roy (2022) claims that predicative nominals are NPs, rather than DPs. But it seems hard to provide syntactic rather than semantic evidence for this distinction. Can we?

4 Specificational copular clauses

4.1 What is this as a class?

This is the class exemplified by (35b), repeated here:

- (48) The woman most likely to win is Jennifer, isn't it?

QUESTION: What would be an actual definition?

4.2 What is special about DP1?

General agreement that the initial DP (DP1) in a specificational clause is not not of type *e*.

- (49) *Our teacher_{*i*} tried PRO_{*i*} to be John.
 (50) a. Currently, the president is from Delaware, and is sympathetic to Easterners.
 b. ?Currently, the president is Joe Biden, and (therefore) is not Donald Trump.
 c. ?*Currently, the president is Joe Biden, and is pretty old.
 (51) a. Ahab is the best man for the job, isn't he/*it?
 b. The best man for the job is Ahab, isn't *he/it?

QUESTION: So what is the syntactic/semantic status of DP1?

4.2.1 Proposal 1: DP1 is an (inverted) predicate <e,t>

I. Apparent synonymy to a predicational clause:

- (52) a. Ahab is the best man for the job.
- b. The best man for the job is Ahab.

(53) I consider Ahab the best man for the job.

II. Claim that anaphoric reference by *it* as in (51b) is because *it* is a pro-predicate.

But ...

- Little evidence that the neuter pronoun in English can be used as a pro-predicate:

- (54) a. My sister is the best student in her class, and my cousin is (**it*) too.
- b. First John was her favorite nephew, and then Bill was (**it*).

The most convincing example is Mikkelsen's (5.6):

- (55) He is a fool, although he doesn't look *it*/**him*.

- Pro-predicates don't presuppose uniqueness, but the *it* in a specificational clause does:

- (56) A: Who here is {their mother's favorite/Italian/under the weather}?
- B: Well, I'd say that Bill looks *it*, and Stephen looks *it* too.
- (57) A: Who here is {their mother's favourite/the winner of a major competition/Italian}?
- B: **It* is me, and *it* is also Stephen.
- B': I am, and Stephen is too.

So: the pronominalisation pattern suggests that the precopular noun phrase in a specificational sentences is not of type *e*, but it is also not consistent with it being of the type of a predicate.

4.2.2 Proposal II: DP1 is an individual concept <s,e>

This proposal is made in Romero (2005) and adopted and expanded on in e.g. Heycock (2012), Arregi et al. (2021), Roy (2022).

A unification of 3 phenomena?

- (58) a. The price of milk has changed/gone up/gone down. INDIVIDUAL CONCEPT
- b. Jonathan knows the price of milk. CONCEALED QUESTION (CQ)
- c. The price of milk is \$4.50 SPECIFICATIONAL SUBJECT (SS)

Perfect parallel between Specificational Subjects (DP1) and Concealed Questions as far as pronominal anaphora is concerned:

- (59) a. The girl who caused the trouble wasn't Mary. *It*/**She* was Jane.
- b. John guessed the winner of the Oscar for best actress before I guess *it*/**her*.
- (60) a. The winners were Su and Jane, **wasn't*/*weren't* **it*/*they*?

- b. John guessed the winners before I guessed *it/them.

Arregi et al: coordination also shows that ICs and SSs are of the same type:

- (61) The price of milk is \$3.99, but changes from state to state.

And we can also do a coordination that shows that CQs and SSs are of the same type:

- (62) The winner of the contest wasn't known at the time, but turned out to be Moira.

But, unexpectedly, this doesn't seem to be true for CQs and ICs (Nathan 2006, Romero 2006):

- (63) *The price of milk fell last week and is known to John.

One further problem, pointed out by Romero (2007): ICs in other contexts do not pronominalize with neuter pronouns when their value is a human:

- (64) a. Every 4-year-old girl is looking for her fairy godmother because she's scared, and every 6-year-old girl is looking for her/*it because she's curious.
b. The pope gets elected by all the cardinals, and he/*it is often Italian.

QUESTION: What is the pronominalisation pattern really telling us about DP1 in specificational clauses? Or vice versa.

4.2.3 Agreement

Moro (1997): Agreement in Italian is not with DP1, but rather with DP2. He claims that this follows (indirectly) from Italian being a pro-drop language:

- (65) Il colpevole sono io. (Italian)
the culprit am I
The culprit is me.

But subsequently it has been discovered that DP2 agreement occurs in other, non-pro-drop languages (Hartmann and Heycock 2019, Béjar and Kahnemuyipour 2017).

- (66) Das Problem sind deine Eltern. (German)
the problem are your parents
The problem is your parents.
- (67) a. %De brandoorzaak waren de brandenden kaarsen in de woonkamer. (Dutch)
the cause of the fire be.PAST.PL the burning candles in the living room
'The cause of the fire was the burning candles in the living room.'
b. De koningin van Engeland ben ik.
the queen of England be.PRES.1SG I.NOM
'The queen of England is me.'
- (68) a. %Hið raunverulega vandamál eru foreldrar þínir. (Icelandic)
the real problem be.PRES.3PL parents your.NOM
'The real problem is your parents.'
b. %Sökudólgurinn ert þú.
culprit.DEF be.PRES.2SG you.NOM
'The culprit is you.'

- (69) %Orsøkin til eldin vóru tey brennandi kertiljósini í stovuni. (Faroese)
 cause.DEF to fire.DEF be.PAST.PL the burning candles.DEF in room.DEF
 'The cause of the fire was the burning candles in the living room.'

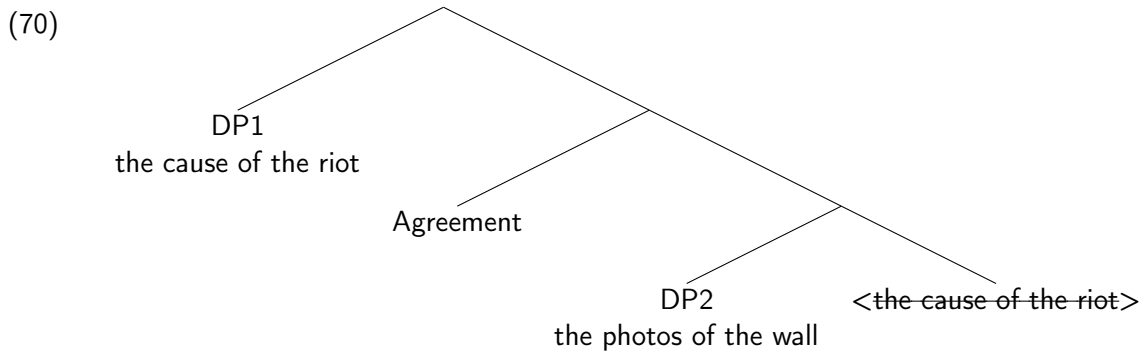
So: some languages consistently have agreement with DP2 in specificational clauses (Italian, German, Catalan, Spanish, Portuguese); some languages consistently have agreement with DP1 (English, French); some languages show inter- and intra-speaker variation (Icelandic, Faroese, Dutch).

QUESTION: What do these agreement patterns tell us / How can we account for them?

Approach 1: Evading agreement: It's all about the inversion

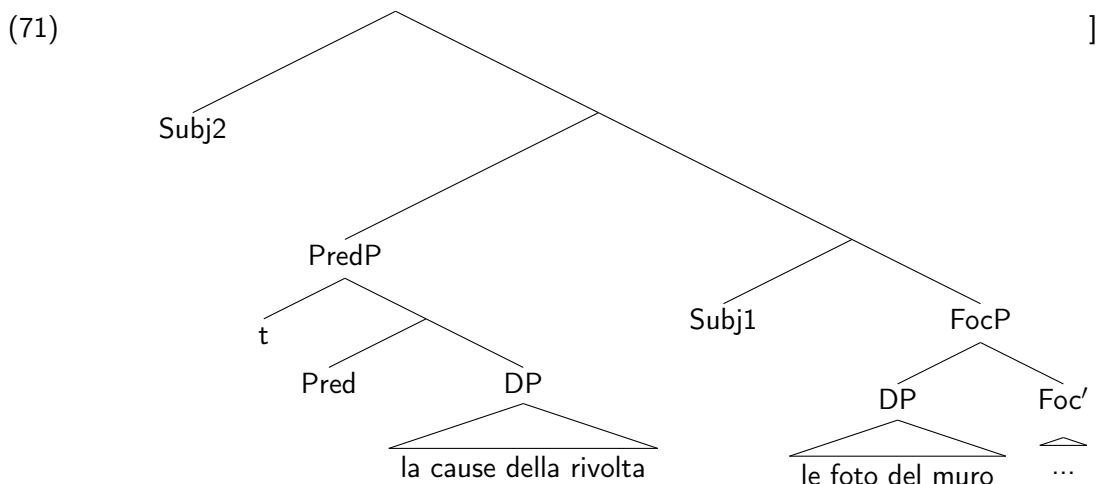
This is the approach taken in e.g. Heycock (2012), Hartmann and Heycock (2016, 2017), Shlonsky and Rizzi (2018). Many of the details vary, but the essential ingredients are:

- Specificational clauses involve the movement of the **lower** nominal in a small clause past the **higher** nominal in the small clause, to a landing site that may be **higher than the agreeing head**.



- For **DP2 agreement**, agreement either can or must be “downward”

So, e.g. in Shlonsky and Rizzi's 2018 account of Italian, agreement on SUBJ1 probes downward and finds and agrees with the **subject** of the small clause (DP2); the lower nominal in the small clause raises to a position **above** the agreeing head, and is not agreed with. In the terms of Hartmann and Heycock (2016) the initial nominal (DP1) **evades** agreement.



Hartmann and Heycock (2016, 2017) have a different structure for the clause in the Icelandic cases that they discuss, because of a more complex pattern of agreement in that language, but

the essential idea is the same: DP2 agreement can arise if the lower DP in the small clause raises to a position above/outside the domain of agreement.

- For **DP1 agreement** (as in French or English) agreement must work differently.

In Shlonsky and Rizzi (2018) the idea is that in English, unlike Italian, agreement requires a Spec-Head relation, and is eventually established with DP1 in its final position in Spec, SUBJ2 (see that paper for details—and perhaps Ur will talk about this tomorrow).

The proposal in Heycock (2012), Hartmann and Heycock (2016, 2017) is not identical (in particular, for them agreement is always downward, but DP1 may invert to a landing site above the focussed DP but still below one or more agreeing head), but the general idea is the same.

QUESTION: In all of these approaches, is there any independently motivated difference between the languages/varieties which correlates with the difference observed in agreement? Can the explanation also extend to languages where there seems to be variability?

Approach II: It's all about properties of the initial nominal

There is an alternative approach to the agreement patterns in specificational clauses that is **consistent** with (some accounts of) inversion, but does not in fact **rely** on the inversion structure. This is the kind of approach advocated in Béjar and Kahnemuyipour (2017, 2018). These authors do adopt the idea that specificational clauses involve inversion (the predicate of a small clause complement to the copula moving past the subject of that small clause) but they actually assume that the movement of the predicate always brings it to a position **within** the domain of agreement (see line (b)):

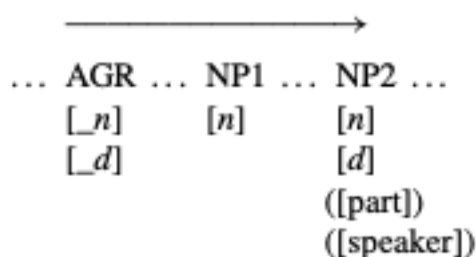
- (6) (a) T ... F [NP2 NP1] (inverse copular clause)
 (b) T NP1 F [NP2 *t*]
 (c) NP1 T *t* F [NP2 *t*]

Crucial ingredients here:

- The initial DP/NP in a specificational clause is **featurally distinct** from an “ordinary” nominal. They propose that DP1 in a specificational clause completely lacks Person features (they actually refer to a “deictic” feature *d* in their 2017 paper, but it seems to amount to Person).
- Agreement probes may be more or less choosy about what features they are looking for (see among others Béjar and Rezac 2003, 2009, Deal 2015, 2021, Coon and Keine 2021)

Given these ingredients, the essence of this type of account is that a language with DP2 agreement (like e.g. Italian or German or Persian as described in Béjar and Kahnemuyipour 2017) has an agreement probe that looks for a DP **specified for person features** to agree with. In such a language agreement in a specificational clause will simply “skip” DP1 and keep going until it finds and agrees with DP2.

(58) *Specificational context in Persian*



In a language with DP1 agreement (like e.g. French or English) on the other hand, the agreement probe must be very underspecified—i.e. if the agreement probe were just specified to look for feature n , it would find and agree with the first DP it comes across (anything with an n feature). See Bejar and Kahnemuyipour (2023) for how this could be fleshed out.

QUESTION: As with the previous approach, is there an independently motivated property of languages that correlates with the different specification of the agreement probes? In Bejar and Kahnemuyipour (2023) there is a suggestion that accusative case on DP2 is a crucial component—but that won't transfer straightforwardly to e.g. Icelandic or Faroese.

QUESTION: What does it mean to say that DP1 lacks a person feature? What is the content of this feature? Does this follow somehow from the structure?

QUESTION: What about agreement in other kinds of copular clauses? I'm glad you asked. Come back tomorrow!

4.2.4 Extraction phenomena

Extraction asymmetries in specificational sentences: (Moro 1991, 1997, Heycock and Kroch 1999, den Dikken 2006a and references in both of the latter).

The basic generalisation is that the postcopular phrase in a specificational sentence cannot be extracted, nor can anything be extracted from it.

- (72) The cause of the riot was the letter from the minister.
- *Which letter _{i} did they say that the cause of the riot was t_i ?
 - *Which minister _{i} did they say that the cause of the riot was the letter from t_i ?
 - *the letter \emptyset_i that they said that the cause of the riot was t_i
 - *the minister \emptyset_i that they said the cause of the riot was the letter from t_i

Subextraction from definite arguments is often quite degraded, so this alone could be held to be responsible for the ungrammaticality of (72b,d), parallel to (73a,b) (Rothstein 2001).

- (73) a. *Which minister _{i} did you throw the letter from t_i in the bin?
b. *the minister \emptyset_i that we threw the letter from t_i in the bin

But the ungrammaticality of the extractions in (72a,c) contrasts quite sharply with cases of argument extraction like (74a,b).

- (74) a. Which letter _{i} did they say that the leader of the riot had burned t_i ?
b. the letter \emptyset_i that the leader of the riot had burned t_i

Proponents of the inversion analyses differ in the details of how they account for these constraints on extraction, but in general they are able to draw on whatever constraint or property makes subjects more resistant to extraction than objects, since in the predicate inversion analysis DP2 is a subject (of the small clause whose predicate has moved to the left).

An alternative possibility is to derive the failure of extraction from the obligatorily focal status of the postcopular phrase (this proposal is made in den Dikken 2006a, Ch. 4).

QUESTION: Why do "bare" *wh*-phrases behave quite differently?

(75) Who do you think the winner is t_i , if it isn't Judi?

Note: the follow-up sentence is given in order to exclude a parse where the question is based on a predicative, rather than a specificational structure.

4.3 What is special about DP2?

Many analyses of specificational clauses: nothing special to say about DP2 (except that it is obligatorily in focus)

But recall the idea that DP1 in a specificational clause might be assimilated to a kind of **question** (specifically, a CONCEALED QUESTION (CQ)). That gives rise to the idea that DP2 constitutes the **answer** to the question.

The idea that specificational **pseudoclefts** like *What you saw was a picture of yourself* consist of a question and its answer flanking the copula has a long pedigree, and for some but not all authors this analysis is extended, as in Schlenker (2003), Romero (2007), to non-cleft specificational sentences (see for example Faraci 1970, Ross 1972, 1985, 1997, 2000, den Dikken et al. 2000, Schlenker 2003, Romero 2004, 2005, 2007, and additional references in den Dikken 2006b).

The principal motivation for this move has always been the CONNECTIVITY facts (although worth noting that it also explains the obligatory focus on DP2: a question always constitutes the background with respect to the answer to it).

4.3.1 Connectivity effects

IF specificational sentences are question-answer pairs, connectivity effects can be reduced to phonological ellipsis (à la Merchant 2004).

(76) A: What was Monica looking at?
B: ~~She was looking at~~ the moon.

(77) a. What Monica was looking at was ~~she was looking at~~ the moon.
b. The thing that Monica was looking at was ~~she was looking at~~ the moon.

- Anaphor Binding ("Principle A" Effects)

(78) a. What they_i wanted was each other's_i jobs.
b. Their_i only interest was themselves_i/each other_i.

(79) A: What do they_i want?
B: Each other_i's jobs.

(80) A: What are they_i interested in?
B: Each other_i.

- Obligatory non-coreference of pronouns ("Principle B" Effects)

(81) a. Who he_i shaved was him_{*i/j}.
b. Her_i only interest was her_{*i/j}

(82) A: Who did he_i shave?
B: Him_{*i/j}

- (83) A: Who is she_i interested in?
B: Her_{*/j}.

- Obligatory non-coreference of full noun phrases ("Principle C" Effects)

- (84) a. What he_i claimed was that Mike_{*/i/j} was innocent.
b. His_i main claim was that Mike_{*/i/j} was innocent.

- (85) A: What did he_i claim?
B: That Mike_{*/i/j} was innocent.

- Negative Polarity Item (NPI) Licensing

- (86) a. I bought almost everything we needed. But what I didn't buy was any bread.
b. They covered almost everything. Their only omission was any mention of the war.
But maybe this is free-choice "any"?

- (87) A: So now I should pick up anything that we haven't got yet. What didn't you get yet?
B: ?Any bread.

- Opacity

- (88) a. What we were all hoping to see was a pink panther.
b. Our goal was a high score.

- (89) A: What are you all hoping to see?
B: A pink panther.

- (90) A: What are you aiming for?
B: A high score.

4.3.2 Divergences in connectivity

Not a complete convergence between short answers and the foci of pseudoclefts:

Clauses and complementisers

- (91) a. *That John got arrested happened/occurred/transpired next.
b. A: What happened/occurred/transpired next?
B: (*That) John got arrested.
c. What happened/occurred/transpired next was that John got arrested.

VPs as focus

Bare VPs are good in the focus of pseudoclefts where the *do* that seems to have the function of assigning case to the *wh*-phrase (Marantz 1987) is itself present, past, infinitival or a perfect participle:

- (92) a. What the president does at the weekend is go to the country.
b. What the president did yesterday was go to the country.
c. What the president will do next weekend is go to the country.
d. What the president had done was (to) go to the country.

In contrast, bare infinitival short answer questions are only fully acceptable when the question contains a modal (or other verb selecting an infinitive).¹

(93) A: What does the president do at the weekend?

B: ??Go to the country.

B:' He goes to the country.

(94) A: What did the president do yesterday?

B: *Go to the country

B:' He went to the country.

(95) A: What will the president do next weekend?

B: Go to the country.

(96) A: What had the president done?

B: *Go to the country.

B:' He had gone to the country

B:'' Gone to the country.

A further difference with pseudoclefts is that for many speakers the pseudocleft equivalent of (96B'') is significantly degraded (some speakers however report that such examples are only mildly deviant):

(97) ?*What he had done was gone to the country.

Focus with *only*

(98) There were no accomplices ...

a. (Only) John was the culprit.

b. The culprit was (*only) John.

(99) People from my village were generally not affected by the accident; ...

a. ... (only) John was one of the victims.

b. ... one of the victims was (*only) John.

4.3.3 Some evidence against a propositional interpretation

There are a certain number of nominals in English that can appear in classic concealed question contexts but cannot appear in specificational sentences (for other).

(100) a. They knew/guessed/noted down/revealed the identity of the murderer.

b. They knew/guessed/noted down/revealed who the murderer was.

¹Den Dikken et al. 2000, p. 47 find no contrast between (ia) and (ib); I disagree strongly with this judgment, finding the short answer significantly degraded in comparison with the pseudocleft.

(i) a. What John did was buy some wine.

b. What did John do? — Buy some wine.

It is important to distinguish between short answers to questions and elliptical continuations, which behave differently, as in this case the ellipsis is based on the question form:

(ii) A: What did you do?

B: *Go home.

(iii) What did you do? Go home?

(101) a. They knew/guessed/noted down/revealed the murderer's age/name and identity.

(102) a. *The identity of the murderer is Harry the Horse.
 b. *The identity of the murderer is that he is Harry the horse.
 c. *The identity of the murderer is the butler.

Other nouns that seem to behave similarly to *identity* include at least *whereabouts*, and also (for me) *affiliation*, and (perhaps more weakly) *nationality*:

(103) a. We want to know/inquired about/asked for/identified her whereabouts.
 b. *Her whereabouts is/are (in) Paris.

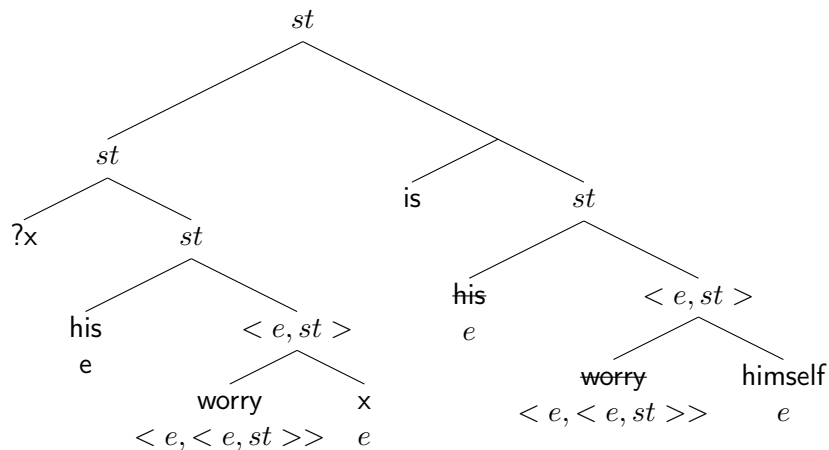
(104) a. We want to know/inquired about/asked for/identified her religious affiliation.
 b. ??Her religious affiliation is Jewish/Judaism.

(105) a. We want to know/inquired about/asked for/identified his nationality.
 b. ??His nationality is Egyptian.

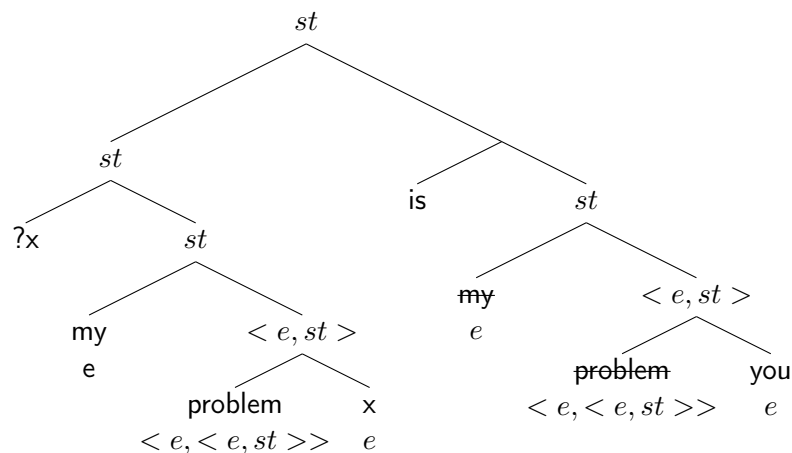
And one more thing:

At least in the languages which allow or require agreement with DP2, DP2 cannot be buried in a syntactic constituent denoting a proposition, or it would not be accessible for agreement. The following structure is the one that Schlenker gives for specificational sentences that have a definite DP as DP1 (i.e. not the cleft cases):

(106)



(107)



5 “Equatives”

5.1 Mistaken identity

Semantically **asymmetric!**

- (108) a. In the darkness, I thought you were your brother!
b. In the darkness, I thought your brother was you!

No obligatory **focus** on DP2:

- (109) Q: Who did you mistake for Michiko? Was it Etsuko?
A: No, no! I thought [*Focus* MARIKO was Etsuko].

Either DP can be **questioned**:

- (110) A: Man, I got mixed up at that party. I mistook Alex for Benji, and I also mistook one of your friends for Carlo.
B: Really? Who/Which of my friends did you think was Carlo?
- (111) A: Man, I got mixed up at that party. I kept thinking that I was seeing my relatives! I mistook Alex for my cousin Benji, and I made a similar kind of mistake with Carlo
B: Really? Who/Which of your relatives did you think Carlo was?

So these examples seem to have more of the properties of **PREDICATIONAL** sentences!

Terrible in small clause complements to *consider*—:

- (112) *No one has ever considered one of my relatives Carlo.

—but as we saw, this most likely would follow from other constraints imposed by *consider*.

Coordination? Remarkably, this seems ok to me:

- (113) Situation: Carla is French. Dalal is Jordanian.
A: I overheard you at the party saying hello to Dalal in French. But why did you do that? You know she’s from Amman!
B: Yes, but remember how bad the lighting was? When I came in, I thought Dalal was Carla, and therefore French.

For much more discussion and analysis of these cases, see Percus and Sharvit (2014, 2023) or, of course, speak to Orin!

5.2 True identity(?)

QUESTION: Are there *any* cases of “equative” copular sentences that are symmetric in any way?

5.2.1 No: predication all the way down

Moro (2006a), Adger and Ramchand (2003): No. One of the nominals is always predicative.

What must be affirmed here is that identity is not predicated by the copula or equivalently that one of the two noun phrases involved in a copular sentence always plays the role of a predicate. (Moro 2006b, p. 08)

Moro's argument: an unmodified possessive pronoun in a clearly predicative sentence in English cannot co-refer with the subject. Thus (114a) cannot be interpreted to mean that Omer cooks for himself. (To express this, the addition of *own* is obligatory, as in (114b)—this is not discussed by Moro). In contrast, when a possessed noun phrase occurs in an argument position coreference is perfectly possible (114c):

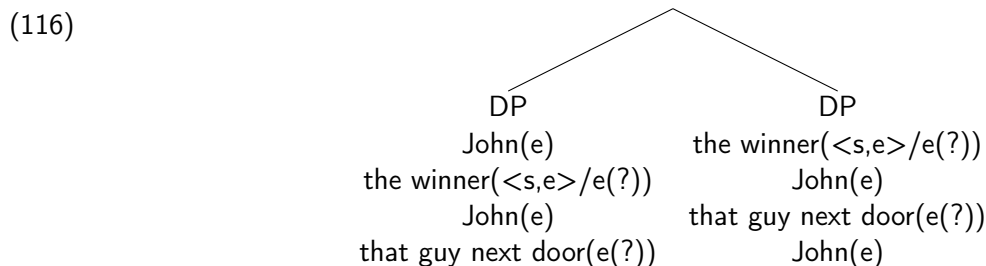
- (114) a. Omer_i is his_{*i} cook.
 b. Omer_i is his_i own cook.
 c. Omer_i met his_i (own) cook.

Moro took the ungrammaticality of (114a) as evidence against the existence of equative sentences. But then what about cases like (115)?

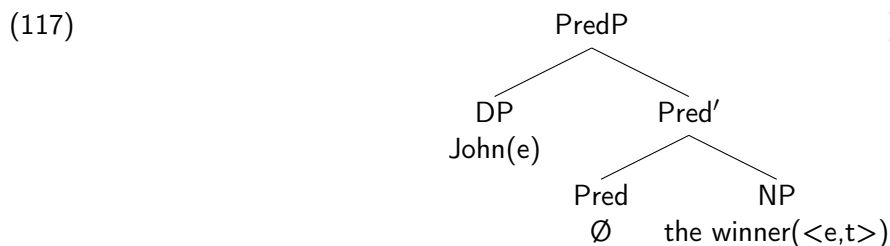
- (115) Omer's cook produces delicious food. But unfortunately, today Omer himself is cooking for us. And as you can tell,
 a. Omer_i is not his_i cook!
 b. ?His_i cook is not Omer_i!

5.2.2 Yes: some copular clauses have a symmetric core

Roy (2022): Where both nominals are DPs/neither is predicative, the "small clause" is symmetrical (and inherently unordered). This includes **both specificational cases and "true equatives"**. The difference between them is that in the first case one of the DPs is of type $\langle s,t \rangle$ (an individual concept) while the other is of type e ; in the "true equative" case both are of the same type.

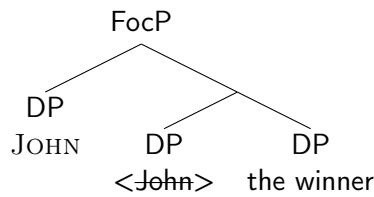


Note that although the phrase *the winner* can also be predicative (of type $\langle e,t \rangle$), it is argued that in this case it occurs in a different, inherently asymmetric PredP structure:

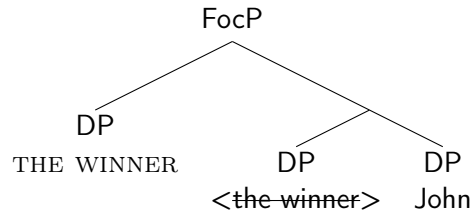


Proposal: syntax cannot allow a truly symmetrical flat structure like (116) to surface. It can be "rescued" however if one DP moves out to a dedicated low Focus position. For example:

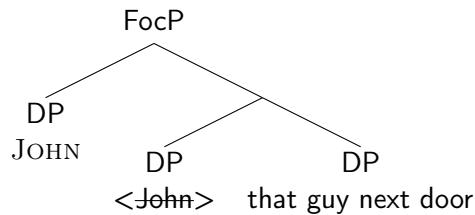
(118) a.



b.



c.



It is then possible (I won't go into the mechanisms here), for the final DP to move leftward past the focalized DP and wind up in the subject position of the copula:

- (119) a. The winner is JOHN.
 b. John is THE WINNER.
 c. That guy next door is JOHN.

This makes the prediction that it is not only specificational clauses that have obligatory focus on the final DP; this must also be the case for "true equatives."

EMPIRICAL QUESTION: Is the prediction actually borne out?

(23), repeated here as (120), was me trying to get the most natural possible equative sentence in an earlier paper. Can (120a,b) be analysed as having focus on the postcopular DP in each case, despite the pitch accent placement?

- (120) You say you prefer Fernando Pessoa to Alberto Caeiro?
 a. But Fernando Pessoa IS Alberto Caeiro!
 b. But Alberto Caeiro IS Fernando Pessoa!

Note: Hartmann and Hegedűs (2006) also argue, on the basis of evidence from Hungarian, that equatives always involve focus

EMPIRICAL/THEORETICAL QUESTION (maybe for tomorrow?): Does this account predict that specificational sentences and true equatives will have the same agreement properties? What are the facts?

THEORETICAL QUESTION: Why is it only movement to the specifier of FocP that can rescue the illicit flat/symmetric structure? Why not the same kind of movement to subject position that you get in an ordinary predicational copular clause?

6 Summing up

- If you are interested in semantics (and philosophy): copular sentences are a great space for interrogating questions about the relation of identity
- If you are interested in the syntax/semantics interface: copular clauses pose various challenges / offer scope for investigation, including questions of the mapping between syntactic and semantic categories, and the source of/requirement for asymmetry in linguistic representations.
- If you are interested in agreement (a currently very active research topic in morphosyntax): copular clauses show a great variety of patterns crosslinguistically, and constitute a particularly interesting case of potential “competition” for agreement.
- If you are interested in information structure: copular clauses are apparently minimal structures that have some very distinct information-structural properties in a range of languages, with possible interactions with e.g. *wh*-movement.
- If you are interested in crosslinguistic variation: copular clauses are typically not investigated in depth in grammars, but for all the reasons above, they deserve proper investigation in a much more diverse set of languages than has been the case to date.

References

- Adger, D. and G. Ramchand (2003). Predication and equation. *Linguistic Inquiry* 34(3), 325–359.
- Arregi, K., I. Francez, and M. Martinović (2021). Three arguments for an individual concept analysis of specificational sentences. *Natural Language and Linguistic Theory* 39, 687–708.
- Béjar, S. and A. Kahnemuyipour (2017). Non-canonical agreement in copular sentences. *Journal of Linguistics* 53(3), 463–499.
- Béjar, S. and A. Kahnemuyipour (2018). Not all phi-features are created equal: A reply to Hartmann and Heycock. *Journal of Linguistics* 54(3), 629–635.
- Bejar, S. and A. Kahnemuyipour (2023). Agree and the subjects of specificational sentences. *Syntax*, 1–29ff.
- Béjar, S. and M. Rezac (2003). Person licensing and the derivation of PCC effects. In A. T. Perez-Leroux and Y. Roberge (Eds.), *Romance Linguistics: Theory and Acquisition*, pp. 49–62. Amsterdam: John Benjamins.
- Béjar, S. and M. Rezac (2009). Cyclic agree. *Linguistic Inquiry* 40(1), 35–73.
- Bowers, J. (1993). The syntax of predication. *Linguistic Inquiry* 24(4), 591–656.
- Bowers, J. (2001). Predication. In M. Baltin and C. Collins (Eds.), *The Handbook of Contemporary Syntactic Theory*, pp. 299–333. Oxford: Blackwell.
- Cheng, H. (2021). *All structures great and small: On copular sentences with shì in Mandarin*. Ph. D. thesis, Leiden University, Leiden, The Netherlands.
- Cheng, L. L.-S., C. Heycock, and R. Zamparelli (2017). Two levels for definiteness. In M. Y. Erlewine (Ed.), *Proceedings of GLOW in Asia XI - Volume I*, Volume 84 of *MIT Working Papers in Linguistics*.
- Coon, J. and S. Keine (2021). Feature gluttony. *Linguistic Inquiry* 52(4), 655–710.

- Deal, A. R. (2015). Interaction and satisfaction in ϕ -agreement. In T. Bui and D. Ozyildiz (Eds.), *Proceedings of NELS 45*, University of Massachusetts at Amherst. GLSA.
- Deal, A. R. (2021, 11). Interaction, satisfaction, and the PCC. *Linguistic Inquiry*, 1–80.
- den Dikken, M. (2006a). *Relators and Linkers: The Syntax of Predication, Predicate Inversion and Copulas*, Volume 47 of *Linguistic Inquiry Monographs*. Cambridge, MA: MIT Press.
- den Dikken, M. (2006b). Specificational copular sentences and pseudoclefts: A case study. In M. Everaert and H. van Riemsdijk (Eds.), *The Blackwell Companion to Syntax*, Volume IV, pp. 272–409. Oxford, New York: Blackwell.
- den Dikken, M., A. Meinunger, and C. Wilder (2000). Pseudoclefts and ellipsis. *Studia Linguistica* 54(1), 41–89.
- Everaert, M. and H. van Riemsdijk (Eds.) (2006). *The Blackwell Companion to Syntax*. Oxford: Blackwell.
- Faraci, R. (1970). On the deep question of pseudo-clefts. Ms, MIT.
- Hartmann, J. M. and V. Hegedűs (2006). Equation is predication: Evidence from Hungarian. Handout for a talk given at LAGB 2006.
- Hartmann, J. M. and C. Heycock (2016). Evading agreement: A new perspective on low nominative agreement in Icelandic. In C. Hammerly and B. Prickett (Eds.), *Proceedings of the Forty-Sixth Annual Meeting of the North East Linguistic Society (NELS)*, Volume 2, Amherst, MA, pp. 67–80. GLSA Publications.
- Hartmann, J. M. and C. Heycock (2017). Variation in copular agreement in Insular Scandinavian. In H. Thráinsson, C. Heycock, H. P. Petersen, and Z. S. Hansen (Eds.), *Syntactic Variation in Insular Scandinavian*, Volume 1 of *Studies in Germanic Linguistics (SIGL)*, pp. 233–275. Amsterdam: John Benjamins.
- Hartmann, J. M. and C. Heycock (2019). (Morpho)syntactic variation in agreement: Specificational copular clauses across Germanic. *Frontiers in Psychology, Language Sciences* 10(2994).
- Heycock, C. (2012). Specification, equation, and agreement in copular sentences. *Canadian Journal of Linguistics* 57(2), 209–240.
- Heycock, C. and A. Kroch (1999). Pseudocleft connectedness: Implications for the LF interface level. *Linguistic Inquiry* 30(3), 365–397.
- Higgins, F. R. (1973). *The Pseudo-Cleft Construction in English*. Ph. D. thesis, MIT.
- Higgins, F. R. (1979). *The Pseudo-Cleft Construction in English*. New York: Garland.
- Julien, M. (2005). *Nominal Phrases from a Scandinavian Perspective*. John Benjamins.
- Julien, M. (2006). Nominal arguments and nominal predicates. In J. M. Hartmann and L. Molnárfi (Eds.), *Comparative Studies in Germanic Syntax: From Afrikaans to Zurich German*, *Linguistik Aktuell/Linguistics Today*, pp. 115–140. John Benjamins Publishing Company.
- Lasersohn, P. (2005). Context dependence, disagreement, and predicates of personal taste. *Linguistics and Philosophy* 28, 643–686.
- Lasersohn, P. (2009). Relative truth, speaker commitment, and control of implicit arguments. *Synthese* 166(2), 359–374.

- Marantz, A. (1987). Inflection, case and (non) matching in pseudo-clefts. Draft of a paper presented at the Annual Winter Meeting of the LSA.
- Merchant, J. (2004). Fragments and ellipsis. *Linguistics and Philosophy* 27.6, 661–738.
- Mikkelsen, L. (2005). *Copular Clauses: Specification, Predication and Equation*, Volume 85 of *Linguistik Aktuell*. Amsterdam: John Benjamins.
- Moro, A. (1991). The raising of predicates: Copula, expletives and existence. In L. Cheng and H. Demirdash (Eds.), *MIT Working Papers in Linguistics* 15, pp. 183–218. Cambridge, Mass.: MIT.
- Moro, A. (1997). *The Raising of Predicates: Predicative Noun Phrases and the Theory of Clause Structure*. Cambridge: Cambridge University Press.
- Moro, A. (2006a). Copular sentences. See Everaert and van Riemsdijk (2006), Chapter 18, pp. 1–23.
- Moro, A. (2006b). Existential sentences and expletive *there*. See Everaert and van Riemsdijk (2006), Chapter 24, pp. 210–236.
- Nathan, L. (2006). *On the Interpretation of Concealed Questions*. Ph. D. thesis, MIT.
- Percus, O. and Y. Sharvit (2014). Copular asymmetries in belief reports. Poster presented at SALT 24.
- Percus, O. and Y. Sharvit (2023). Copular asymmetries in belief reports. MS., Nantes University/CNRS, UCLA.
- Romero, M. (2004). Intensional noun phrases with *know* and *be*. *Catalan Journal of Linguistics* 3, 147–178.
- Romero, M. (2005). Concealed questions and specificational subjects. *Linguistics and Philosophy* 28(6), 687–737.
- Romero, M. (2006). On concealed questions. In M. Gibson and J. Howell (Eds.), *Proceedings of SALT XVI*, Ithaca, pp. 208–227. CLC Publications.
- Romero, M. (2007). Connectivity in a unified analysis of specificational subjects and concealed questions. In C. Barker and P. Jacobson (Eds.), *Direct Compositionality*, pp. 264–305. Oxford: Oxford University Press.
- Ross, J. R. (1972). Act. In D. Davidson and G. Harman (Eds.), *Semantics of Natural Language*, pp. 70–126. Dordrecht: Reidel.
- Ross, J. R. (1985). The source of pseudocleft sentences. Handout of a talk given at New York University, November 1985.
- Ross, J. R. (1997). That is the question. Paper presented at the University of Pennsylvania, November 1997.
- Ross, J. R. (2000). The frozenness of pseudoclefts—Towards an inequality-based syntax. In J. P. Boyle and A. Okrent (Eds.), *Proceedings of the 36th Regional Meeting of the Chicago Linguistic Society*, Chicago, pp. 385–426.
- Rothstein, S. (2001). *Predicates and their Subjects*, Volume 74 of *Studies in Linguistics and Philosophy*. Dordrecht, Boston: Kluwer.

- Roy, I. (2022, June). Predication, Specification, Equation: nominal copular sentences in search of asymmetry. Handout for a talk at the Workshop on Copular Sentences: Predication, Specification, Equation.
- Saebø, K. J. (2009). Judgment ascriptions. *Linguistics and Philosophy* 32(327–352), 327–352.
- Schlenker, P. (2003). Clausal equations (a note on the connectivity problem). *Natural Language and Linguistic Theory* 21, 157–214.
- Shlonsky, U. and L. Rizzi (2018). Criterial Freezing in small clauses and the cartography of copular constructions. In J. M. Hartmann, M. Jäger, A. Kehl, A. Konietzko, and S. Winkler (Eds.), *Freezing: Theoretical Approaches and Empirical Domains*, pp. 29–65. De Gruyter Mouton.
- Svenonius, P. (2002). Subject positions and the placement of adverbials. In P. Svenonius (Ed.), *Subjects, Expletives, and the EPP*, pp. 201–242. Oxford University Press.
- Zamparelli, R. (2000). *Layers in the Determiner Phrase*. Outstanding Dissertations in Linguistics. New York: Garland.