

Session 1 • Introduction to the syntax of copular sentences

Q what is the syntactic structure of (1)?

(1) that man is my best friend

- (2) a. [TP [DP *that man*] [T=*is* [DP *my best friend*]]]
b. [TP [DP *that man*] [T [VP *t*_{DP} *is* [DP *my best friend*]]]] (abstract away from
c. [TP [DP *that man*] [T [VP (*t*_{DP}) *is* [_{SC} *t*_{DP} [DP *my best friend*]]]]]] the v/V distinction)

- (2b) can safely be cast aside: it treats *is* as a dyadic verb, taking both DPs as its arguments; but the fact that *is* obligatorily raises to T past negation (*that man isn't my best friend* ~ **that man doesn't be my best friend*), something that θ -role assigning verbs never manage to do in English, is a secure indication that *is* is not a θ -role assigner
- (2c) is a popular analysis from the GB era: *is* is a raising verb (the answer to the question of whether there is an intermediate NP-trace in the specifier of *is* depends on one's theoretical assumptions; the issue is immaterial here), taking a small-clause complement ('SC')
 - copular sentences with predicate nominals that themselves have a filled highest specifier (*my* is standardly analysed as the occupant of SpecDP) have figured prominently in the debate in the literature about whether small clause exists (Williams 1983) and, if they do, the question of what their internal syntax is — the Stowell (1981, 1983) approach that takes small clauses to be the maximal X-bar-theoretic (extended) projections of predicate heads is compromised by (1) if an approach à la (2c) is right
 - alternative approaches to the internal structure of small clauses include:
 - (i) inflectional ones ('IP' without tense, i.e., 'AgrP'; rejected by Moro 1997 on account of the fact that small-clause predicates do not have to show ϕ -feature concord with their subjects)
 - (ii) 'Pr(ed)P' (Bowers 1993 and others in his wake), with 'Pr(ed)' a designated category responsible for mediating a predication relation; the predicate is always the complement of 'Pr(ed)'
 - (iii) 'RELATORP' (Den Dikken 2006), where the RELATOR is *not* a designated category: any suitable element can fulfil the role of relating the predicate to its subject; the predicate and its subject are always in an asymmetrical relation, with the predicate either as the complement or as the specifier of the RELATOR, and its subject in the other XP position in the RELATORP
- note that if (iii) is adopted, (1) can be analysed as in (2a), with T (spelled out as *is*) serving as the RELATOR of the predication relation between *my best friend* and *that man* — so TP = the RELATORP
 - (2a) is the simplest possible analysis of (1) compatible with the observation that *is* is not a θ -role assigning verb and the general hypothesis that predication relations are asymmetrical
- in the discussion so far, (1) was read as a *predicational* copular sentence
 - but it can also be read as a *specificational*(ly identifying) copular sentence
 - in a specificational copular sentence, one of the noun phrases **exhaustively specifies** the candidates or 'values' for the other noun phrase, the 'variable', which can be thought of as the header of a list (Higgins 1979 calls this the 'superscriptional' noun phrase)
 - in (1), *my best friend* can be the superscriptional noun phrase, with *that man* exhaustively specifying the members of the list that *my best friend* defines (here exhaustification is rather trivial: the list headed by *my best friend* can have only one member; but for *my best friends* the list is longer)

- when (1) is read as a specificational copular sentence, it provides the answer to a question requesting specificational information: *who is the person you call your best friend?*
- a peculiar property of copular sentences is that the answer to this question can also have a different word order: the one in (1')

(1') my best friend is that man

- while (1) is ambiguous between a predicational and a specificational reading, (1') is specificational only

NB the literature often claims that (1) is predicational only, and that specificational copular sentences in English exclusively come in a format in which the 'superscriptional' noun phrase precedes the copula and the 'value'-denoting noun phrase follows it

BUT both Higgins (1979) and Declerck (1988), the two main authorities on the typology of copular sentences, make it clear (correctly) that specificational copular sentences have two possible linear orders — they are *reversible*

- for double-DP specificational copular sentences, the order in (1') is perhaps the most common one; but the reversibility of specificational copular sentences is readily observable in a particular subtype of specificational copular sentence, the **specificational pseudocleft**

- compare (2/2') and (3/3') (based on examples due to Akmajian 1979)

		SPECIFICAT'L	PREDICAT'L
(2)	food for the dog is his supper	✓(4a), # (4b)	✓(5a), *(5b)
(2')	his supper is food for the dog	✓(4a), # (4b)	*(5a), ✓(5b)

(3)	food for the dog is what he doesn't eat for supper	✓(4a), # (4b)	✓(5a), *(5b)
(3')	what he doesn't eat for supper is food for the dog	✓(4a), # (4b)	*(5a), ✓(5b)

(4)	SPECIFICATIONAL VARIABLE/SUPERSCRPTIONAL	VALUE
a.	<i>his supper/what he doesn't eat for supper</i>	<i>food for the dog</i>
b.	<i>#food for the dog</i>	<i>his supper/what he doesn't eat for supper</i>

(5)	PREDICATIONAL PREDICATE	SUBJECT
a.	<i>his supper/what he doesn't eat for supper</i>	<i>food for the dog</i>
b.	<i>food for the dog</i>	<i>his supper/what he doesn't eat for supper</i>

- Higgins' SPECIFICATIONAL reading treats one of the two major constituents of the copular sentence as the header of a list (the 'superscriptional' phrase) and the other as specifying the member(s) of that list

- (4a): for *all four* sentences in (2/2') and (3/3'), a SPECIFICATIONAL reading is available in which *his supper* or *what he doesn't eat for supper* is the 'superscriptional' noun phrase and *food for the dog* is the exhaustive 'value' for it — put differently, all four sentences can be used in reply to the question *what is it that he {eats/doesn't eat} for supper?*; dog food is the only thing that the referent of *he {eats/doesn't eat} for supper*

- in (9/9') we see that the presence or absence of the infinitival copula *to be* has no influence whatsoever on the (un)grammaticality of PREDICATIONAL constructions embedded under *consider*
- in (8/8'), on the other hand, we see that the copula, while already somewhat preferred in (8), is obligatory in (8'), the SPECIFICATIONAL construction in which the variable precedes the value
- the key pair is (8') vs (9'): the latter is fine regardless of the presence of *to be*; the former works only in the presence of the copula
- we see the same pattern of copula distribution in SPECIFICATIONAL copular sentences whose 'superscriptional' constituent is a simple DP rather than a *wh*-clause
- in (10'), *to be* must be present on the intended specificational reading; without *to be*, the sentence is grammatical only if *that man* is interpreted as a predicate nominal and *my best friend* is referential
- to control for predicational/specificational ambiguity, we can use sentences such as those in (11'), for which a predicational reading is nonsensical (problems aren't human)

(10) I consider that man (to be) my best friend
 (10') I consider my best friend *(to be) that man (* on a specificational reading)

(11) I consider the children (to be) the biggest problem
 (11') I consider the biggest problem *(to be) the children

- in my work since the early 1990s (see Den Dikken 2006 for its culmination), I have argued consistently that the obligatoriness of the copula in (8') and (10')/(11') yields important insight into the syntactic derivation of SPECIFICATIONAL constructions which have the superscriptional constituent preceding the value
- the superscriptional constituent is a PREDICATE which, when it precedes the value (its subject), undergoes a PREDICATE INVERSION operation that involves SYNTACTIC MOVEMENT of a particular type — A-movement
- in the structure in (2a) (repeated below as (12)), which I had adopted for (1) (*that man is my best friend*), there is no space for the predicate to move (assuming, with Kayne 1994 but *contra* Chomsky, that (A-)specifiers are unique per head)
- since SpecTP is the highest A-position in the clause (the \bar{A} -field starts right above TP), we can only accommodate A-movement of the predicate around its subject by starting out with a structure in which the predication relation between the subject and the predicate is established *in the complement of T*, as in (13)

(12) $[_{TP} [_{DP} \textit{that man}] [T=is [_{DP} \textit{my best friend}]]]$ (= (2a))
 (13) $[_{TP} [T [_{RP} [_{DP} \textit{that man}] [RELATOR [_{DP} \textit{my best friend}]]]]]$

- A-movement of the predicate across the base position of its subject based in (13) presents a LOCALITY problem: the subject in (13) is a closer goal for the probe T external to the small clause (RP), which is a PHASE
- for T to be able to probe the predicate, they have to be 'phasemates'
- for this to be the case, the RELATOR head of the small clause must raise to T — a case of PHASE EXTENSION; see (14)–(15)

(14) $[_{TP} [T+RELATOR [_{RP} [_{DP} \textit{that man}] [RELATOR [_{DP} \textit{my best friend}]]]]]$
 (15) $[_{TP} [_{DP} \textit{my best friend}] [T+RELATOR [_{RP} [_{DP} \textit{that man}] [RELATOR [_{DP} \textit{my best friend}]]]]]$

- raising of the RELATOR to T forces the copula to be overt

- in Den Dikken (2006), this is recast as a need to *signal* the application of phase-extending head movement: a null copula cannot provide such a signal
- the obligatoriness of the copula thus becomes a *diagnostic* for Predicate Inversion
- the fact that the copula must be present in (8'), (10') and (11') tells us, in light of this, that the syntax of these constructions involves Predicate Inversion
- conclusion: SPECIFICATIONAL declaratives in which the superscriptional constituent precedes the value are derivable via Predicate Inversion

Q is this the only possible derivation for SPECIFICATIONAL declaratives in which the superscriptional constituent precedes the value?

- Den Dikken, Meinunger & Wilder (2000) (henceforth DMW) argue that there is a second strategy for deriving *wh*<value specificational pseudoclefts: a TOPIC–COMMENT structure in which the *wh*-clause is a question in topic position and the comment is the answer to this question
 - DMW call these ‘Type A’ specificational pseudoclefts; for pseudoclefts employing the predication-based derivation, they use the label ‘Type B’¹
 - since these labels are arbitrary and not particularly mnemonic, I will replace them here with more meaningful labels
 - ‘Type A’ specificational pseudoclefts will be called ‘TC SPCs’ (TC = TOPIC–COMMENT)
 - ‘Type B’ specificational pseudoclefts will be called ‘PI SPCs’ (PI = Predicate Inversion) [of course *inversion* is optional in PI SPCs; the label is designed for the *wh*<value order]
- TC SPCs have a fully clausal (TP) value: the value is the comment, which is always a full clause
 - the value can be smaller than a full TP on the surface — as a result of *ellipsis* in the answer clause, all the way down to the focus of the answer

- (16) a. what John ate was (he ate) a watermelon
 b. [_{TopP} [_{CP} *what John ate* ~~*what*~~] [_{Top}=*was* [_{TP} (*he ate*) *a watermelon*]]]

- DMW (sect. 4.3) argue that a TC-style analysis is also available for specificational copular sentences in which the superscriptional constituent is nominal rather than a *wh*-clause: (17a)
- they observe that *the thing John ate* can serve as a concealed question (esp. in echoes) — (17b)

- (17) a. the thing John ate was (he ate) a watermelon
 b. the thing John ate? — (he ate) a watermelon

- though DMW do not venture this far out, it seems that with this in mind, even (1') should in principle be amenable to a TC-style parse

- (18) my best friend? — that man over there!

- once concealed questions are factored in, the TC approach to specificational copular sentences is probably applicable to the entire range of specificational copular sentences in which the superscriptional constituent precedes the copula

¹ DMW actually take their ‘Type B’ SPCs to *only* support a value<*wh* order — i.e., the order base-generated in the small clause. However, it is empirically inadequate to force a ‘Type A’ (TOPIC–COMMENT) derivation upon *all* *wh*<value SPCs: while TOPIC–COMMENT structures are strictly unembeddable under ECM verbs, SPCs with *wh*<value order *can* be so embedded (see (8')).

- there will be more discussion of DMW’s TC SPCs in session 3 of this seminar
- for now, we will concentrate on one particularly salient ingredient of the analysis: the fact that for DMW, TC SPCs are ‘self-answering questions’ — question-answer pairs dominated by a TopP
- in light of the fact that questions are not normally preceded by their answers, the expectation arises from this that TC SPCs should have a rigid *wh*<value word order
- DMW assert that this is the case — but it has been pointed out that specificational pseudoclefts with full-TP values CAN have TP<*wh* order
- both (19a) and (19b) are grammatical with full-TP values (O’Neill 2012)
- O’Neill (2012) calls the versions of (19a) and (19b) with the material in parentheses included in them ‘amalgam constructions’: they amalgamate two sentences (*what he should work on is his attitude* and *he should work on his attitude*) into one

- (19) a. what he should work on is (he should work on) his attitude
 b. (he should work on) his attitude is what he should work on

- O’Neill (2013) points out that there are a whole family of copular ‘amalgam’ constructions: see (20)–(22) for representative examples of additional types (all taken from O’Neill 2012)
- NB the acceptability of these specificational copular amalgams (henceforth SCAs), like that of non-elliptical TC SPCs, is subject to a great amount of speaker variation; all of these amalgams are typical of the *spoken* vernacular, not of written texts²

- (20) you know what he should work on? is (he should work on) his attitude
 (21) that’s what he should work on is (he should work on) his attitude
 (22) he should work on that this year is (he should work on) his attitude

- these SCAs are not a homogeneous set — thus, while the pseudocleft amalgam in (19) shows full reversibility even when the value is a full clause, the SCAs of the type in (20)–(22) are irreversible but they all pattern alike in at least the following respects:
- - the copula must be bare: copula clusters and negation are impossible (for (19) this is true for *both* relative orders of the *wh*-clause and the value clause — in this respect and also in the others below, the full-TP version of (19b) is markedly different from its DP variant)
 - no embedding in ECM or raising constructions
 - NPI-connectivity effects are attested in all SCAs

- (23) a. *what John ate {might have been/isn’t} John ate a watermelon
 b. *I consider what John ate to be John ate a watermelon
 c. *what John ate seems to be John ate a watermelon
 d. what John didn’t eat is John didn’t eat any watermelon

- (24) a. *John ate a watermelon {might have been/isn’t} what John ate
 b. *I consider John ate a watermelon to be what John ate
 c. *John ate a watermelon seems to be what John ate
 d. John didn’t eat any watermelon is what John didn’t eat

2 The ‘double-*is*’ phenomenon (Bolinger 1987, Massam 1999) can combine with SCAs, to a varying extent:

- (i) a. what he’s gonna do is is he’s gonna rewrite it
 b. he’s gonna rewrite it is (*is) what he’s gonna do
 c. guess what I’m gonna do is (“is) I’m gonna rewrite it
 d. that’s what happened is is somebody got hurt

- (25) a. *you know what John ate? {might have been/isn't} (he ate) a watermelon
 b. *I consider you know what John ate? to be (he ate) a watermelon
 c. *you know what John ate? seems to be (he ate) a watermelon
 d. you know what John didn't eat? is (he didn't eat) any watermelon
- (26) a. *that's what he ate {might have been/isn't} (he ate) a watermelon
 b. *I consider that's what he ate to be (he ate) a watermelon
 c. *that's what he ate seems to be (he ate) a watermelon
 d. that's what he didn't eat is (he didn't eat) a watermelon
- (27) a. *he should eat that sometime {should be/isn't} (he should eat) a watermelon
 b. *I consider he should eat that sometime to be (he should eat) a watermelon
 c. *he should eat that sometime seems to be (he should eat) a watermelon
 d. he shouldn't eat that is (he shouldn't eat) any watermelon

- re: the ungrammaticality of the a-sentences in (23)–(27), note that the form *is* is generally the default in SCAs — the copula cannot show plural inflection, not even when the focus is plural (see (28a))³
- in this respect, SCAs are different from specificational pseudoclefts, which do allow number inflection — for some speakers even in cases in which we must, on DMW's assumptions, be dealing with a TC SPC, such as (28b) (where NPI-connectivity forces a TC-parse by DMW's logic)⁴

- (28) a. these are my issues {is/*are} the expensive parking, the bad layout, and the remote location
 b. what nobody has bought {is/°are} any cups and glasses

- the ϕ -invariant nature of the copula in SCAs suggests that under no circumstances can it gain access to any of the material in the (elliptical) clause that follows it

3 The copula of SCAs also tends to be present-tense *is* rather than *was* — but here the facts are less unequivocal. The SCA seems to be very much like 'double-*is*' constructions, which likewise tend to prefer present-tense *is*, though 'double-*was*' is occasionally attested:

- (i) a. the problem was is that the IPV6 designers where all ivory tower types and forgot that the first priority should be migration and interoperability
 b. the problem was is that you wrote this op-ed in which you were talking about tolerance...
 c. the problem was is that since it was already upgrading i couldnt see...
- (i') a. the problem was was that there was doubt
 b. the first problem was was the need to X-out the 43
 c. the first problem was was the the polybutylene fittings which would burst
- (ii) a. the funny thing was is that the guy who won did that exact move
 b. the sad thing was is she was just about to finish her first semester of senior year
 c. the important thing was is that I did recognize the indoor quality of the air when we first started this program
- (ii') a. the terrible thing was was that at that time i was leaving for a 4 day girls camp in a week or so
 b. the thing was was that we had two different, yet close, octaves of notes going at the same time
 c. the funny thing was, was that the trail was free to a certain point

4 The following is a naturally attested example, culled from the internet:

- (i) what nobody has seen are any of the bonuses (including playmats, tokens, tins, counters) which were supposed to be shipped with the cards
 (<http://boardgamegeek.com/thread/900269/stop-wulven-from-cheating-their-customers>)

Chris Wilder (p.c., 2011) rejects *what nobody brought were any crackers*. It may be that plural inflection on the copula is harder to get in the past tense, in TC SPCs (though evidently not in PI SPCs). Recall also the previous fn., on tense in SCAs and 'double-*is*'.

- the copula of SCAs must be ‘more external’ to the (elliptical) clause that follows it than the copula of TC SPCs
- the copula of TC SPCs lexicalises a Top⁰ head in the extended projection of the value-TP, and serves as the RELATOR of the logical subject (the *wh*-clause topic) and its logical predicate (the comment, i.e., the value-TP)
- for SCAs we want an analysis that allows the two constituent clauses to be in a specificational relationship very much like the one found in DMW-style TC SPCs, yet at the same time we cannot adopt the ‘self-answering question’ approach that DMW proposed — if only because of the fact that some SCAs in fact allow the *wh*-clause to *follow* the TP: recall (19), repeated here

- (19) a. what he should work on is (he should work on) his attitude
 b. (he should work on) his attitude is what he should work on

- O’Neill (2012) proposes a *specifying coordination* approach to SCAs, with the copula as the spell-out of the specificational conjunction (the ‘:’ of Koster 2000 and subsequent work by Mark de Vries and colleagues)
 - note that, as Koster’s proposal for (29a) stands, the specifying coordination structure is unbalanced: the two conjuncts are of different sizes and categories
 - but Koster’s analysis is straightforwardly updated (taking advantage of the DMW approach to TC SPCs) by representing the complement of : as an elliptical clause

- (29) a. Jan heeft iets moois gebouwd: (en wel) een gouden iglo (Dutch)
 Jan has something beautiful built (and AFF) a golden igloo
 b. [:P [TP Jan heeft iets moois gebouwd] [: [DP een gouden iglo]]]
 c. [:P [TP Jan heeft iets moois gebouwd] [: [TP hij heeft een gouden iglo gebouwd]]]

- O’Neill (2012) adopts (29c) and extends the specifying coordination approach to SCAs
 - this delivers the structures in (40)–(42) for the examples in (20)–(22)

- (30) [:P [TP you know what he should work on?] [:=is [TP (he should work on) his attitude]]]
 (31) [:P [TP that’s what he should work on] [:=is [TP (he should work on) his attitude]]]
 (32) [:P [TP he should work on that this year] [:=is [TP (he should work on) his attitude]]]

- the ϕ -invariant copula *is* in SCAs is the lexicalisation of the specifying coordination head ‘:’
- of course the copula is by no means obligatory; but whenever it occurs in SCAs, it relates two TPs in a conjunctive structure
- the copula in SCAs is NOT part of the extended projection of the TP in its complement — this is arguably responsible for the fact that it can never show ϕ -feature agreement with any material inside the second conjunct

- at a general level of analysis, predication and coordination are very much alike
 - Den Dikken (2006:17) puts it as follows:

‘the semantics of coordination [has] the coordinator represented as a connective that takes one set-denoting linguistic expression and relates it to another set-denoting expression, delivering the intersection (\cap) of the two sets. Let us then take [(33)] to give us a general format for the expression of set intersection in syntax. (...) this presents the possibility that the RELATOR in [(33)] might uniformly be the logical operator “ \cap ,” with predication being semantically represented as set intersection.’

(33) $[_{RP} XP [_{R'} RELATOR [YP]]]$

- taking this into consideration, we can now generalise over ALL specificational copular sentences and represent their underlying representations systematically in the form of RELATOR phrases: (34)
- with O’Neill’s (2012) analysis of SCAs added into the mix, we have an integrated analysis of all the various specificational copular constructions reviewed so far, including copular amalgams — all built with the aid of the central building blocks for predication: the RELATOR and its X-bar projection

(34) a. specificational predicate nominal constructions
 $[_{RP} \textit{that man} [_{R'} RELATOR=is [\textit{my best friend}]]]$
 $[_{FP} [\textit{my best friend}] [_{F'} F+RELATOR=is [_{RP} \textit{that man} [_{R'} RELATOR=is [\textit{my best friend}]]]]]]]$

b. PI SPCs
 $[_{RP} \textit{a watermelon} [_{R'} RELATOR=is [\textit{what he ate}]]]$
 $[_{FP} [\textit{what he ate}] [_{F'} F+RELATOR=is [_{RP} \textit{a watermelon} [_{R'} RELATOR=is [\textit{what he ate}]]]]]]]$

c. TC SPCs
 $[_{RP} [\textit{what he ate}] [_{R'} RELATOR=Top=is [(he ate) \textit{a watermelon}]]]$

d. SCAs
 $[_{RP} [\textit{that's what he ate}] [RELATOR=:is [(he ate) \textit{a watermelon}]]]$

Q how to fit the *it*-cleft into this comprehensive picture?

(35) it is a watermelon that John ate

- in session 5 of this seminar, I will present and defend an analysis of *it*-clefts that exploits key ingredients of the analysis of PI and of the syntax of specificational copular amalgams
- (a) the *it* of *it*-clefts is a pro-predicate that inverts with its subject, the value/focus (36)
- (b) the TP constituted by the PI construction in (36) serves as the specifier of a specifying coordination structure whose second conjunct is another TP, as in SCAs (37)
- (c) the second conjunct is an elliptical copular TP harbouring the relative clause (38)
- (d) the relative clause is a particular type of null-headed relative (39), sharing with ordinary free relatives (40) the fact that the head is phonologically null but differing from ordinary free relatives in the semantic properties of the null head

(36) $[_{TP1} \textit{it} [_{T'} T+RELATOR=is [_{RP} [_{Subj} \textit{a watermelon}] [_{R'} RELATOR} [_{Pred} \#]]]]]]]$

(37) $[_{:P} TP1=(36) [RELATOR=: \emptyset TP2=(38)]]]$

(38) $[_{TP2} \textit{a watermelon is that John ate}]$

(39) $[_{DP} \emptyset [_{CP} \{\textit{which}_i / \textit{Op}_i / * \textit{what}_i\} [_{C'} C [_{TP} \textit{John ate } t_i]]]]]]]$

(40) $[_{DP} \forall / \textit{DEF} [_{CP} \{\textit{what}_i / * \textit{Op}_i / * \textit{which}_i\} [_{C'} C [_{TP} \textit{John ate } t_i]]]]]]]$

- at the macro-syntactic level, *it*-clefts have a structure that has much in common with that of SCAs
- in particular, both *it*-clefts and SCAs exploit specifying coordination — one of the two major structural schemata for the syntactic representation of specification (the other being predication)