

**A double life for complement *if*-clauses revisited:
preliminary remarks for a 21st century version
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1. Raising-to-object (R2) and the passive puzzle for *w*-verbs

R2 with *believe*-class verbs

- (1) **R2 with English *believe*-class verbs**
 - a. Mary believes those linguists to have solved the problem.
 - b. Sue considered there to be many good candidates for the job.

- (2) **Passivization of R2 constructions possible with *believe*-class verbs**
 - a. Those linguists are believed __ to have solved the problem.
 - b. Most of the applicants were considered __ to be good candidates for the job.

***W*-verbs: complementation patterns and the passive puzzle**

- (3) **Apparent R2 with English *w*-verbs**
 - a. Mary would like those linguists to solve the problem.
 - b. Sue wanted there to be many good candidates for the job.

- (4) ***for*-infinitive complementation with English *w*-verbs**
 - a. Mary would like for those linguists to solve the problem.
 - b. Sue wanted % (very much) for there to be many good candidates for the job.

- (5) **Control-infinitive complementation with English *w*-verbs**
 - a. Mary would like to solve the problem.
 - b. Sue wanted to get the job.

- (6) **Puzzle: passivization of R2 constructions not possible with *w*-verbs (Bresnan 1972, 154-160) — in contrast to *believe*-class verbs**
 - a. *Those linguists would be liked __ to solve the problem.
 - b. *There were wanted __ to be many good candidates for the job.

- **Bresnan's (1972) and Chomsky's (1981, 69; 252-253) proposal to explain (6):**

Apparent R2 (ECM) with *w*-verbs is entirely different from *believe*-class.

 - Clausal complement of *w*-verb always headed by *for*, optionally silent, giving the illusion of R2.
 - *For* (whether silent or overt) blocks A-movement of the subject in a passive construction, because it assigns case to it.

Pesetsky's (1991) argument against the Bresnan/Chomsky proposal

- **Apparent R2 of the subject of the complement of both *believe*-predicates and *w*-predicates depends on the same properties of the embedding head:**
- (7) **R2 with *believe*-class predicates restricted to clausal complement of active, non-unaccusative verbs ...**
 - a. Mary believes those linguists to have solved the problem.
 - b. *It is believed those linguists to have solved the problem.
 - c. *It seems those linguists to have solved the problem.
 - d. *[Mary's belief those linguists to have solved the problem] is erroneous.
 - e. *Mary is sure those linguists to have solved the problem.
 - f. *It is believable those linguists to have solved the problem.

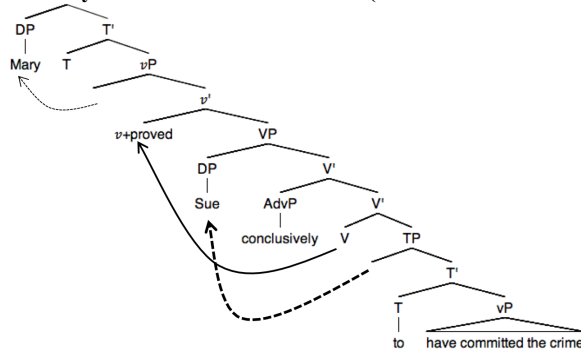
 - (8) **... and apparent R2 with *w*-class predicates shows identical restrictions ...**
 - a. Mary wants/would like those linguists to solve the problem.
 - b. *It was wanted/would be liked those linguists to solve the problem.
 - c. *It would appeal to Mary those linguists to solve the problem.
 - d. *[Mary's desire those linguists to solve the problem] was obvious.
 - e. *Mary is eager those linguists to solve the problem.
 - f. *It is desirable those linguists to solve the problem.
- **Apparent R2 with both *believe*-predicates and *w*-predicates raises the embedded subject into the higher VP:**
- (9) **R2 subject precedes higher-clause low-VP adverbs (*believe*-verbs) ...**

(Postal 1974, 146-7)

 - a. Mary proved Sue conclusively to have committed the crime.
 - b. Sue believes Bill with all her heart to be the best candidate.
 - c. Somebody found Germany recently to have been relatively justified in the [1915] *Lusitania* sinking. (Postal)

 - (10) **... and cannot follow them**
 - a. *Mary proved conclusively Sue to have committed the crime.
 - b. *Sue believes with all her heart Bill to be the best candidate.

(11) **Analysis of R2 with *believe*-class (on conventional assumptions about infinitives)**



(12) **Likewise: R2 subject precedes higher-clause low-VP adverbs (*w*-verbs) ...**
(Postal 1974, 186)

- a. Mary would like those linguists with all her heart to solve the problem.
- b. Sue wanted there quite strongly to be many good candidates for the job.

(13) **... and cannot follow them**

- a. *Mary would like with all her heart those linguists to solve the problem.
- b. *Sue wanted quite strongly there to be many good candidates for the job.

(14) **R2 subject c-commands low elements in the higher clause (*believe*-predicates)**
(Lasnik & Saito 1991)

Principle C:

- a. Sue believes that he_i is a genius even more fervently than Bob_j's mother does.
- b. *Sue believes him_i to be a genius even more fervently than Bob_j's mother does.

Principle A:

- c. The DA proved the defendants_i to be guilty during each other_j's trials.
- d. *The DA proved [that the defendants were guilty] during each other's trials.

(15) **R2 subject c-commands low elements in the higher clause (*w*-verbs)**

Principle C:

- a. Sue would like [for him_i to be genius] even more fervently than Bob_j's mother does.
- b. *Sue wants him_i to be a genius even more fervently than Bob_j's mother does.
(judgments contra Bach 1977; Lasnik & Saito 1991, 19)

Principle A:

- c. The DA wanted the defendants_i to be guilty during each other_j's trials (but he later changed his mind).

- Both *believe*-predicates and *w*-predicates permit small-clause complements, which show the same contrast under passivization (Pesetsky 1982; 1991) ...

(16) **Passive possible from small-clause complement to *believe*-class verbs**

- a. He considered it clear that the world was not going to end.
- b. It was considered __ clear that the world was not going to end.
- c. Sue considered it very cold in that room.
- d. It was considered very cold in that room.

(17) **Passive impossible from small-clause complement to *w*-class verbs**

- a. He wanted it clear from the start that the world was not going to end.
- b. *It was wanted clear from the start that the world was not going to end.
- c. Sue liked it cold in that room.
- d. *It was liked cold in that room.

... but small clause complements uniformly lack complementizers

Passive puzzle:

If *w*-verbs trigger the same R2 as *believe*-verbs, what accounts for the impossibility of further movement of the raised subject when the higher verb is passivized?

2. The passive puzzle connected to *w*-verb semantics: evidence from *expect*

(Bresnan 1972, reporting joint work with Howard Lasnik; elaborated on in Pesetsky 1991)

- **Three faces of *expect*: *believe*-class, *w*-verb, and object control**

(18) ***expect* as *believe*-class or *w*-verb ...**

- a. We expected there to be flowers on the table.
A: 'We believed that there would be flowers on the table.' (prediction)
B: 'We desired that there be flowers on the table.' (admonition)
- b. Mary always expected the table to be set when she came home.
A: 'Mary always believed that the table would be set...' (prediction)
B: 'Mary always desired that the table be set...' (admonition)

Analysis - R2: I expect [^{you}] [__ to have set the table]

(19) **... disambiguated by passive**

- a. There were expected to be flowers on the table.
- b. The table was always expected to be set when Mary come home.
(√prediction, *admonition)

- (20) **expect as object control verb (also admonitory)**
- a. **Active:** I expect you to have set the table before I come home.
 - b. **Passive:** You are expected to have set the table before I come home. (✓admonition)
- Analysis - Control:** *I expect [you] [PRO to have set the table]*
- Shows clearly that something about the semantics of the *w*-verb class crucially correlates with a syntax that permits R2 but bars further passivization — and this correlation presumably runs deep. Or else how could a child acquire these subtle judgments concerning homophonous uses of *expect*?

But what is that something that runs deep?

3. Non-logical *if*-clauses, *w*-constructions, and adjuncts as arguments

- (21) **Extending the *w*-construction paradigm to (d)**
- a. Mary would like those linguists to solve the problem.
 - b. Mary would like for those linguists to solve the problem.
 - c. Mary would like to solve the problem.
 - d. *Mary would like (it) if those linguists solved the problem.*

- (22) **Williams (1974)**
I would be happy if Bill were here.

"on one reading, the 'logical' reading, my happiness is not necessarily related to my knowledge that Bill is here; it is simply a consequence of his presence. The other sense of this sentence is, I would be happy that Bill was here, if he were."

- In agreement with my own ancient proposals in Pesetsky (1991), I will suggest that the presence of (21d) in the paradigm of *w*-predicates and the special behavior of the *if*-clause provides a crucial clue to understanding the special syntactic behavior of the R2 construction in (21a) — the Passive Puzzle and another related puzzle to be introduced later.

But I will offer an updated and perhaps more interesting version of the proposal.

Note: This description of the "non-logical" reading has been criticized by Longenbaugh (2019) among others. I return to this criticism shortly — which will actually help us develop our proposal concerning these syntactic puzzles.

NPI argument for the complement-fulfilling "non-logical" character of the *if*-clause in (21d) and (22) [repeating material from Pesetsky 1991]

- (23) **NPI licensing in standard *if*-clauses**
- a. If anyone calls me, say I'm in the shower.
 - b. Bill must have left early, if he left at all.

- (24) **NPI unlicensed in NL *if*-clause (on the relevant readings) ... (Karina Wilkinson, p.c. to Pullum)**
- a. *I would like it if you played the violin any more.
 - b. *I would prefer (it) if you earned any money.
 - c. *I'd would appreciate (it) if you lifted a finger to help.
 - d. *I would love it if you budged an inch.

(The first and second person pronouns in these examples help bring out an admonitory reading that helps disambiguate in favor of NL *if*.)

- (25) **... vs. NPI licensed in normal *if*-clauses**
- a. If you played the violin any more, you'd could play at our wedding
 - b. If you earned any money, we'd be able to go to restaurants.
 - c. If you lifted a finger to help, I wouldn't be so tired all the time.
 - d. If you budged an inch, I'd be able to see the screen.

IC-1991: how I explained this three decades ago

To explain the behavior of negative polarity and non-logical *if*, let us look at the meaning of (227a). Consider the Williams-style paraphrase for this example, as sketched in (247):

- (247)a. **John would like it if Mary knew French. —>**
b. **John would like it that Mary knows French if Mary knew French.**

I propose that the paraphrase in (247b) is more than a mere paraphrase. Instead, something like (247b) (with its associated structure) is an actual representation associated with (247a).⁵⁰ This representation is derived by a special interpretive rule that copies in altered form an *if*-clause. This rule in effect supplies a factive complement not explicitly present at other levels of representation. I state this rule informally in (248) as the **If Copying Rule**:

- (248) **If Copying Rule (IC; Version 1 of 2)**
1. Take a clause *k* of the form [if IP] or [when IP] where *k* modifies a sentence Σ .
 2. Copy *k* as *k'* substituting *that* for *if*, making appropriate changes in mood so as to replace irrealis with realis mood marking.⁵¹
 3. Place *k'* in an argument position of Σ . Leave *k* as an adjunct modifier. (It gets interpreted as a restricting term, with Σ the nuclear scope; for these notions, cf. section 3.1.4.)

IC explains the behavior of negative polarity items with non-logical *if*. If *if* is the only available licenser for a negative polarity item in [if IP], then substitution of *that* for *if* in one of the copies of the *if*-clause will leave that negative polarity item without its licenser:

- (250) *I would like it if anyone were to ask me about the painting. —>
I would like (it) that *anyone asked me about the painting, if anyone were to ask me about the painting.

Updating the analysis

- In a syntax whose core rule is Merge and which permits remerging of a previously merged constituent (Internal Merge), the 1991 proposal no longer needs to be understood as a totally *sui generis* instance of copying.

(26) Update to IC-2024 (very informal preliminary version)

- a. A predicate such as *like*, *prefer*, *happy*, etc. may/must merge first with a clausal complement, semantically interpreted as factive [factivity not important to this talk].
- b. In a *would* environment, this clausal complement may move (be copied) to a higher position, where it is *semantically interpreted a second time*, as a counterfactual conditional clause.
- c. *Also*: The complementizer of a conditional clause is pronounced as *if* rather than *that*. (I return to other questions of pronunciation shortly.)

Consequences intended to follow:

- **The absence of NPI licensing** in examples like (24) arises just as in the older analysis from the existence of two positions of semantic interpretation for the clause selected by the predicate.

In its "conditional position", an NPI might in principle have been licensed, but in its complement position, the NPI is unlicensed — yielding the judgment of unacceptability.

4. Criticism of Williams (1974) and IC-1991 by Longenbaugh (2019)

Longenbaugh's criticisms

- "For concreteness, let's therefore consider what interpretation is expected of the structure proposed by Pesetsky (1991), repeated in [(27)].

- (27) a. I would like it if John were invited.
 b. ≈ If John were invited, I would like that he was invited.

"[...] Putting together the conditional and counterfactual parts, we arrive at the following basic semantics for an example like [(27)]: John has not been invited to the party, but in all situations where he is invited, I like the fact that he was invited. Crucially, these examples therefore report on the attitude holder's desires/attitude in counterfactual situations. I will now argue that this is not the meaning that examples like [(27a)]: really have, and that they instead report the attitude holders's desires/attitude in the actual world *towards* a counterfactual situation. The upshot is that the associated *if*-clause is not the antecedent of a counterfactual conditional."

• **Argument 1 against IC-1991**

"It is generally not possible to use a counterfactual conditional to report an attitude about a situation where the attitude holder is dead or otherwise does not exist. This is expected, since an attitude predicate in the consequent of a counterfactual conditional reports about attitudes/desires in the counterfactual scenario expressed by the antecedent clause. If the attitude holder is dead in such scenarios, they cannot have an attitude. [...]"

(28) Non-NL *if*-clauses illustrating Longenbaugh's point

- a. #If Sue died young, she would hate it.
- b. #If we buried him in France, Bill wouldn't mind it.

"[...] If the non-logical-*if* construction reports an actual-world desire about a counterfactual scenario, we predict, in contrast, that it should be possible to use this construction to report on an attitude holder's desire/attitude concerning a situation where they are dead. This follows straightforwardly, as someone can clearly have attitudes about scenarios where they do not exist. This prediction is borne out [...]"

(29) NL *if*-clauses contrasting with (28)

- a. Sue would hate (it) if she died young.
- b. Bill wouldn't mind (it) if we buried him in France.

• **Argument 2 against IC-1992**

"A second test is possible based on the projection of presuppositions in conditionals. In particular, when evaluating the presuppositions in a conditional consequent, the antecedent is taken to be true (Karttunen and Peters 1979; Heim 1983)...."

(30) Non-NL *if*-clauses illustrating Longenbaugh's point

- Mary has never held elected office, but she is very popular in Georgia.
- a. #Her constituents love her.
 - b. If she represented Georgia in congress, her constituents would love her.

"Thus while [(30a)] is judged as infelicitous, a presupposition failure because Mary does not have constituents, [(30b)] is fully acceptable, since the antecedent limits discussion to worlds where Mary is a congresswoman [...]"

"This leads to the following prediction: if the non-logical-*if* construction involves a true counterfactual conditional, a counterfactual presupposition introduced in the consequent should be acceptable provided the antecedent limits discussion to worlds where the presupposition is satisfied. This is not borne out.[...]"

(31) NL *if*-clauses contrasting with (30)

- Mary has never held elected office there, but she is very popular in Georgia.
- a. If she represented Georgia in congress, her constituents would like it.
 - b. Her constituents would like #(it) if she represented Georgia in congress.

5. A "bull by the horns" response: a low (VP-level) *if*-clause

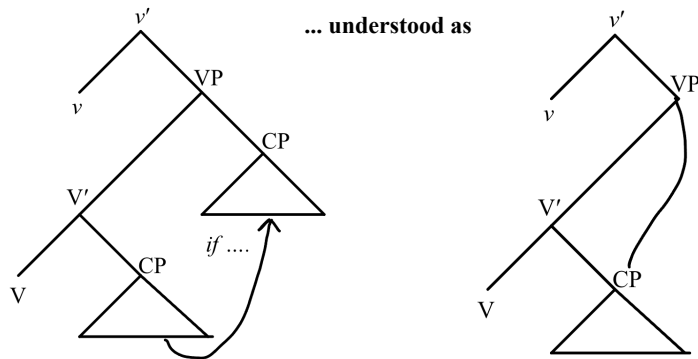
Maintain an analysis in the spirit of Williams and the two versions of IC discussed above, but ...

1. ... decompose the semantics of *like*-type predicates in a novel (I think) manner
2. ... distribute this semantics across *v* and V...
3. ... identify the location of the counterfactual conditional (the landing site, under the IC-2024 version) as a **low position** within VP and below *v*.

(32) How the meaning of *like, love, hate* etc. is built out of *v* and V

- a. *v* = 'have the mindset of', 'have the dispositions of'
- b. V = 'loving ...!', 'hating ...!', etc.

(33) Structure



... with *v* and V interpreted as in (32)

- Yes, there is a puzzle concerning the position of *would*, which appears to be higher than it should be (and can precede other auxiliaries, e.g. *I would have liked it if...*).

Addressing argument 1

(34) *Sue would hate (it) if she died young* =

'Sue_i [_{VP} has the mindset of someone
who would [_{VP} hate [that she_i died young] [if she_i died young]]']

- The low VP-internal position for the counterfactual *if*-clause makes it possible to anchor the disposition of the experiencer introduced by *v* in the actual world.

Addressing argument 2

(35) *Her constituents would like if she represented Georgia in congress.* =

#Her_i constituents [_{VP} have the mindset of someone
who would [_{VP} like [that she_i represents Georgia] [if she_i represented Georgia]]]

- The low VP-internal position for the counterfactual *if*-clause again anchors the disposition of the experiencer introduced by *v* in the actual world — and that creates the intuition of deviance, since she has no constituents in the actual world.

(36) *If she represented Georgia in congress, her constituents would like it.* =

If she represented Georgia in congress, her_i constituents would have the mindset of someone who would [like [that she_i represents Georgia] ...]

- In (36), the high position of the counterfactual *if*-clause places the experiencer subject within the hypothetical world within which she has constituents.
- Why does the version with *it* and a clause-final *if*-clause behave like (36) and not (35)?

(37) *Her constituents would like #(it) if she represented Georgia in congress.*

One possibility is that the example can be parsed with no low conditional at all, as just "would like *pronoun*", where the pronoun takes the TP within the *if*-clause as its antecedent — and the *if*-clause is high.

Alternatively, the VP is identical to that in (35) with the VP-internal *if*-clause elided and the overt *if*-clause high. Ellipsis is possible: e.g. *How would you feel if Trump were elected again? I would hate it.*

But why believe any of this bull-by-the-horns stuff?

- Because a VP-internal location for a conditional clause analyzed as in IC-2024 may offer an explanation for the Passive Puzzle and more.

6. Low *if*-clause → passive puzzle

Recall:

(7) **R2 with *believe*-class predicates restricted to clausal complement of active, non-unaccusative verb ...**

- Mary believes those linguists to have solved the problem.
- *It is believed those linguists to have solved the problem.
- *It seems those linguists to have solved the problem.
- *[Mary's belief those linguists to have solved the problem] is erroneous.
- *Mary is sure those linguists to have solved the problem.
- *It is believable those linguists to have solved the problem.

(8) **... and apparent R2 with *w*-class predicates shows an identical restriction ...**

- Mary wants/would like those linguists to solve the problem.
- *It was desired/would be liked those linguists to solve the problem.
- *It would appeal to Mary those linguists to solve the problem.
- *[Mary's desire those linguists to solve the problem] was obvious.
- *Mary is eager those linguists to solve the problem.
- *It is desirable those linguists to solve the problem.

(38) **Working assumptions about movement:**

(i) **Boring idea about probes and EPP:**

An X-probe on α with an EPP property triggers movement of the closest phrase with X-features, forming Spec, α P.

(ii) **Relativized criteriality** (building on Rizzi, *passim*):

An X-probe on α with an EPP property may mark the specifier that it creates as **criterial** or **non-criterial**, relativized to the A/ \bar{A} -distinction.

- If criterial, the specifier *may not move further*, even if found by a higher probe — except that \bar{A} -movement is possible from a criterial A-position.
- If non-criterial, the specifier *must* move further, i.e. may not remain in that position.

(39) **Location of criterial R2 probes (A-movement triggering) in English**

Present on active and non-agentive V — but not on a passive or unaccusative verb, and not on A or N.

We might assume that *non*-criterial R2 probes are present on passive and unaccusative V (including R1 verbs like *seem*), and probably A and N as well.)

(40) **English agentive (*wager*-class) verbs (Postal 1974; Pesetsky 1991)**

[proposition-taking like *believe*, but agentive]

*We wagered Mary to be the most likely winner.

(41) **Location of criterial R2 probes (A-movement triggering) in French**

Nowhere (ignoring *laissez* and causatives).

(42) **French *believe*-class verbs (Kayne 1980)**

*Je croyais cet homme être arrivé.
I believed this man AUX.INF arrived
'I believed this man to have arrived.'

- Now recall:

(43) **Passive puzzle**

*Those linguists would be liked __ to solve the problem.

— in view of the proposal that *w*-constructions involve two copies of the apparent complement clause: one in complement position, and one an adjunct to VP.

New view of the puzzle

Two ingredients:

(44) **Multi-legality Condition**

If a probe can simultaneously find the same element in two positions (because it is subextracting from a copied/moved phrase), extraction must be legal from both of them.

(45) **"Surprising asymmetry" effect**

Subject extraction is illegal from an island (above and beyond complementizer-trace effects) — including adjunct islands [Pesetsky 1984; Rizzi 1990, 95 ff]

- ??Remind me who you were so upset [because Bill said we should invite __].
- *Remind me who you were so upset [because Bill said __ should invite us].
- ??Who would Mary object [if someone hoped the police would arrest __]?
- *Who would Mary object [if someone hoped __ would arrest the suspect].
(a poorly understood restriction, which I will not explain)

- **Crucially:**

- **R2** movement of the subject of the clause in a *w*-construction takes place **before the low *if*-clause is merged**. Consequently, it does not interact with the Multi-legality condition (44).
- But any **subsequent movement** of that subject triggered by a higher probe (e.g. on *v*) will **follow the creation of the low *if*-clause**. Consequently it *will* interact with the Multi-legality condition (44), and will be barred by whatever factor is at work in the Surprising Asymmetry effect (45).

- The low VP-adjoined position of the *if*-clause in *w*-constructions is essential to this explanation...

- ... as is its **derivational character**. There is nothing intrinsically wrong with a trace formed by subject extraction from the complement clause that has a second location within a later-merged *if*-clause.

What goes wrong is an extraction operation that actually sees the *if*-clause — because it is happening after the *if*-clause has been merged.

7. A Postal/Kayne-paradigm puzzle

The Postal/Kayne (PK) paradigm

- Verbs of the *believe*-class that do not support simple R2 appear allow something that looks like R2 when the subject moves on to a higher position:

(46) **English *wager*-class verbs [agentive proposition-taking verbs]**

(Postal 1974; Pesetsky 1991)

- *We wagered Mary to be the most likely winner.
- Mary, who we wagered to be the most likely winner...

(47) **French *believe*-class verbs (Kayne 1980)**

- *Je croyais cet homme être arrivé.
I believed this man AUX.INF arrived
'I believed this man to have arrived.'

- l'homme que je croyais être arrivé...
the.man that I believed AUX.INF arrived
'the man that I believed to have arrived...'

- **Recall:** The verbs that show the paradigm of (46) and (47) lack a criterial R2 probe on V.

A similar phenomenon:

(48) **Double-object infinitive-taking verbs**

- *I assure you Mary to be the best candidate.
- ✓ Mary, who I assure you ___ to be the best candidate... (Kayne 1984)

- On standard views of infinitives and other reduced clauses, these paradigms present a serious **case-theoretic (NP-licensing) puzzle**. It is straightforward to block the (a) sentences as situations in which case is not licensed on the embedded subject — but then why does \bar{A} -movement of the subject solve that problem?

- **A common response:** The moved embedded subject receives case in an intermediate landing site that it cannot receive *in situ* or in an R2 position.

(Kayne 1984; Pesetsky 1991; Rezac 2013)

- **But the powers and non-powers of the putative higher case assigner would have to be extraordinarily peculiar** (Pesetsky 2019):

(49) **Peculiarity 1:** The putative case assigner is insensitive to category distinctions that otherwise matter for case.

- passive:** Mary, who I've been assured to be the best candidate...
- adjective:** Mary, who I am positive to be the best candidate...
Mary, who we're confident to be the best candidate...
- noun:** Mary, who I have a hunch to be the best candidate...

(50) **Peculiarity 2:** The putative case assigner saves *only* nominals that have been extracted from the subject position of an infinitive. Extraction of a complement from a non-case position cannot be saved by this case assigner.

- passive:** your honesty, which I've been assured *(of) ...
- adjective:** Mary, who I am positive *(about)...
Mary, who we're confident *(of)...
- noun:** Mary, who I have a hunch *(about)...

The Postal/Kayne (PK) paradigm

- The PK paradigm is predicted in an approach to infinitives and other reduced clauses that is **derivational**, as developed in my own recent work.

On this approach, **every less-than-full clause is initially generated as a full and finite CP** — within which it is expected that the subject received NOM case (perhaps as a consequences of agreement). It is movement of the subject that triggers reduction of the complementizer or T or both — not the generation of a reduced clause that triggers the movement as in standard theories.

I argue that reduction happens in the configuration identified by Kinyalolo (1991):

(51) **Kinyalolo Dissimilation**

In [_{CP} ... C [_{TP} ... T ...]], where TP is the complement of C, if both T and C have triggered movement of the same phrase, one or the other must undergo featural reduction.

- **Clause reduction triggered by local movement of the subject to criterial Spec,CP**
 - **anti-agreement** (in Berber, Bantu and elsewhere)
- (52) **Tamazight Berber anti-agreement** (examples from Ouali 2006, 5, ex. (10)-(12))
subject agreement reduced
- a. *thamttut thɣla araw* (full agreement)
woman 3SG.FEM.see.PERF boys
'The woman saw the boys'
- b. *mani thamttut ag ɣlan araw* (reduced agreement)
which woman COMP see.PERF.Part boys
'Which woman saw the boys?'
- c. **mani thamttut ag thɣla araw* (*full agreement)
which woman COMP 3SG.FEM.see.PERF boys
'which woman saw the boys?'
- **Control infinitives** ... where Landau argues, following earlier insights of Chierchia, that a semantically vacuous minimal pronoun moves from spec,TP to spec,CP — creating a λ -expression denoting a property:

(53) **Control**
Mary tried [PRO C [λ to ...]]

- **Clause reduction triggered by local movement of the subject to non-criterial Spec,CP, followed by subsequent movement to higher positions**
 - **R2 constructions in English (and elsewhere)**
 - **R1 constructions in English (and elsewhere)**
 - **that-trace effects (which cut across the A/ \bar{A} distinction)**

(54) **English: \bar{A} -extraction of the local subject → *overt complementizer**

- a. *Who do you think [**that** ___ met Sue]?
- b. \checkmark Who do you think [___ met Sue]?

(55) **Lusaamia (Bantu, Kenya) shows hyper-raising with a that-trace effect:**
"The reconstructed reading is blocked by the presence of a complementizer in the embedded clause." (Carstens & Diercks 2013)

Scenario: You find that the watering hole is empty. Though there are no cows on site, you can say:

- a. **no raising**
Bi-bonekhana koti eng'ombe chi-ng'were amachi
8SA-appear that 10cow 10SA-drink 6water
'It appears that the cows drank the water'
- b. **R1, no complementizer**
Eng'ombe chi-bonekhana chi-ng'were amachi
10cow 10SA-appear 10SA-drink 6water
'The cows appear to have drunk the water'

... but not:

- c. **R1, complementizer**
*Eng'ombe chi-bonekhana koti chi-ng'were amachi
10cow 10SA-appear that 10SA-drink 6water
'The cows appear as if they have drunk the water' (Carstens & Diercks 2013)

- **Arguments for this approach include the famous Icelandic puzzle for traditional case theory ...**

(56) **Quirky subject, nominative object in an R2 infinitival complement**
Læknirinn_i telur barninu (í barnaskap sínum_i) batnaði veikin.
the.doctor.NOM believes the.child.DAT (in foolishness his) recovered.from.INF the.disease.NOM
'The doctor_i believes the child (in his_i foolishness) to have recovered from the disease.'

... including the fact that the nominative object behaves as if agreed with, for the purposes of the Anaphor Agreement Effect:

(57) **AAE effect for NOM object in non-finite clause**
*Ég tel Maríu leiðast sig.
I believe Maria.DAT find.boring.INF REFL.NOM
Intended: 'I consider Maria to find herself boring.'

... interpretable as residues of the derivational stage before the quirky subject raised and triggered infinitivization, when the embedded clause was full and finite.

- Similarly, the licensing of the moved subject in PK-paradigm infinitives is also a residue of that stage, and no external licenser need be sought. The data in (49) and (50) follow immediately.

- All that's necessary to say about the PK-paradigm on this view is that **the subject exits its clause via the specifier of CP** (and the higher verb tolerates reduction of its complement to an infinitive).
- **What to remember:** a PK-paradigm infinitive is the result of movement to a non-criterial R2 position, followed by further movement in response to a higher probe, as required.

Assume this higher probe is located on *v*.

The puzzle

PK paradigm puzzle
There is no PK-paradigm effect in w-constructions.

As observed for French by Pollock (1985):

(58) **No PK paradigm for French w-constructions (Pollock 1985, 314)**

- a. *l'homme que j'aurais voulu être arrivé à l'heure
the man C I would.have wished AUX.INF arrived on time
'the man who I would have wished to have arrived on time'
- b. *le chapitre que j'aurais désiré ne pas être réécrit
the chapter C I would.have desired NEG AUX.INF rewritten
'the chapter that I would have desired to have been rewritten'

Also true for English!

(59) **Recall...**

- a. *passive:* Mary, who I've been assured to be the best candidate...
- b. *adjective:* Mary, who I am positive to be the best candidate...
Mary, who we're confident to be the best candidate...
- c. *noun:* Mary, who I have a hunch to be the best candidate...

(60) **No PK paradigm for English w-constructions**

- a. *passive:* *Mary, who I've been asked [__ to arrive on time] ...
- b. *adjective:* *Mary, who I would be happy [__ to arrive on time] ...
*Mary, who I would
- c. *noun:* *Mary, who I have a desire [__ to arrive on time] ...
*Mary, who I would give anything [__ to arrive on time] ...

• **Explanation:**

The PK paradigm arises from infinitivization that is triggered by movement of the subject that ends up in a position **higher than spec,VP**.

It is blocked in w-constructions for the same reason passivization of the raised subject is blocked: the inability of a probe merged higher than the *if*-clause to extract the subject from both the complement and *if*-clause simultaneously.

8. How to pronounce a complement/if-clause pair

(26) **Update IC-2024 (very informal preliminary version)**

- a. A predicate such as *like, prefer, happy*, etc. may/must merge first with a clausal complement, semantically interpreted as factive.
- b. This clausal complement may move to a higher position, where it is semantically interpreted a second time, as a counterfactual conditional clause.

- If only the higher copy is pronounced, this straightforwardly predicts the pronunciation of adjectival *w*-constructions as in (61):

(61) **Pronounce higher copy only**

- a. I would be happy if you brought me some water.
- b. I'd be delighted if you invited me to a workshop in Berlin.

- This possibility is also available to verbs, with some degree of variation. My 1991 self liked them less than my 2024 self does:

If adjectives may be objectless at S-structure and acquire an object via IC, we must ask why verbs like *like* and *hate* may not do the same. In fact, they may do so, somewhat substandardly, as noted by Irene Heim (personal communication). She notes that certain verbs, marginally allow post-verbal *if*-clauses without object *it*. For some reason, in my judgment, these examples are best with first-person subjects, perhaps because of the conversational tone:

- (323)a. ??I'd prefer if you turned the light off.
- b. ??I'd hate if Bill didn't show up.
- c. ??I'd love if someone discovered the answer.
- d. ??I'd appreciate if you called me tomorrow.

These verbs are otherwise strongly transitive:

- (324)a. *I'd prefer.
- b. *I'd hate.
- c. *I'd love.
- d. *I'd appreciate.

- We might treat the *it* that is possible and sometimes close to obligatory in these constructions, as another instance of "pronounce higher copy" — but with a resumptive pronoun.

(62) **Pronounce higher copy, with resumptive pronoun [?]**

- a. I'd prefer it if you turned the light off.
- b. I'd hate it if Bill didn't show up
- c. I'd love it if someone discovered the answer.
- d. I'd appreciate it if you called me tomorrow.

- g. *Sue wants (it) if you turned the light off.
- h. Sue wants *(very much) for you to turn the light off.
- i. Sue wants you to turn the light off.
- j. Sue wants you to turn the light off.
- k. Sue wants you home by midnight.
- l. Sue wants *(?very much) that he come home by midnight.

- But what permits non-if-clause complementation to *w*-predicates?

(63) **Clausal complementation with *w*-predicates**

- a. I'd prefer for you to turn the light off. **for-infinitive**
- b. I'd hate to hear news like that. **control infinitive**
- c. I'd like you to discover the answer **R2**
- d. I'd like you home by midnight. **small clause**

- e. I demand that she come to the workshop. **subjunctive**

- **Observation:** These are all *reduced clauses* of one sort or another — in each case, plausibly resulting from raising of the embedded subject to a position no higher than the higher VP.

Even subjunctives:

(64) **Adverbials may not precede subject in subjunctive clauses (English)**

- a. Mary demanded [that (*sometimes) Bill arrive on time].
 cf. Mary said that sometimes Bill arrives on time.
- b. We would prefer [that (*most of the time) Mary accept this solution].
 cf. We know that most of the time Mary accepts this solution.

- **Speculation:** The two copies of the complement clause can be pronounced *simultaneously*, so long some process reconciles the difference in C (*that vs. if*) and T (non-X-marked vs. X-marked) that would force distinct pronunciations for the two locations of the clause.

Reduction can do this.

- Predicates can be picky about the reduction/non-reduction pattern that they accept:

(65)

- a. Sue would prefer (it) if you turned the light off.
- b. Sue would prefer for you to turn the light off.
- c. Sue would prefer you to turn the light off
- d. Sue would prefer to turn the light off.
- e. Sue would prefer you home by midnight
- f. Sue would prefer that he come home by midnight.