Williams 2003: Ch. 1–2

LING 252 · Ethan Poole · 13 January 2022

1 Shape conservation

✳ ***Core idea***
Syntax economizes on shape distortion, rather than on distance.

- ***Illustration: Superiority effects***
  - In multiple-*wh* questions in English, the highest *wh*-element must front to [Spec, CP], and no others may do so:

    (1) a. [$_{CP}$ **who** did [Björk think ___ bought **what**]]?

    b. *[$_{CP}$ **what** did [Björk think **who** bought ___]]?

  - Standardly, we think of this pattern in terms of structural distance, namely MINIMALITY: C attracts the *closest wh*-element.
  - However, the same pattern can be recast in terms of SHAPE CONSERVATION: it must be the highest *wh*-element that moves because that preserves the greatest number of c–command relations.
- "…some of the uses of distance minimization economy in the minimalist literature are transparent contrivances to achieve shape conservation with jury-rigged definitions of distance." (Williams 2003:1)

1.1 Bracketing paradoxes

- ***'Beautiful dancer' vs. 'beautiful person who dances'***
  - The phrase *a beautiful dancer* is famously ambiguous between two meanings:

    (2) a. beautiful one who dances

    b. person who dances beautifully

  - We can represent these meanings in terms of brackets:

    (3) a. **"Low" structure**
    [beautiful [dance **-er**]]

    b. **"High" structure**
    [[beautiful dance] **-er**]

  - We know that *dance* and *-er* must be syntactically grouped together: (i) *-er* attaches to verbs to produce nouns, and (ii) *beautiful* attaches to nouns. There is no other way to assemble these pieces.

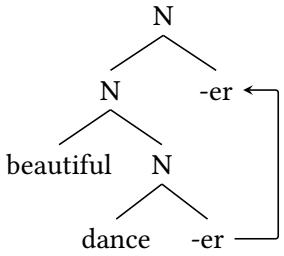
    (4) [beautiful$_A$ [dance$_V$ -er$_N$]$_N$]$_N$

    (5) V + -er = N

  ⇒ Thus, the low structure transparently corresponds to the surface syntactic structure, and the high structure does not.

– We can write a rule that derives the high structure from the low structure. For instance, *-er* moves to a higher position at LF:

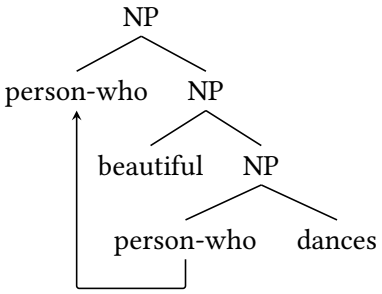
(6)



– Williams contends that if we define such a rule in a completely general way, then we would expect it to apply to *a beautiful person who dances* as well, which is crucially unambiguous:[1]

[1] Obviously, (7) is not a realistic structure, but the point still stands. A better case is perhaps *a beautiful person that dances*, where *person* moves.

(7)



– There are, of course, straightforward reasons why the rule might be blocked in (7), e.g. islandhood or locality. However, Williams argues that the problem is more general, and such a solution does not generalize.

- ***(Root) compounds***
  – Even though compounds have essentially the same surface structure as *beautiful dancer*, they completely lack bracketing paradoxes:[2]

[2] small caps = accented

(8) a. kitchen [TOWEL rack] ≠ [KITCHEN towel] rack
b. swan [BOAT book] ≠ [SWAN boat] book
c. cat [TOWER base] ≠ [CAT tower] base

(9) **English compound stress rule**
If S is not a compound:
  Assign S stress.
Else:
  If the right branch of S is a compound:
    Recurse on the right branch.
  Else:
    Recurse on the left branch.

⇒ Given whatever restructuring rule we posit for *beautiful dancer*, why can it not apply to compounds?

- ***Interim summary: Two problems***
  1. *a beautiful dancer* is ambiguous, but *a beautiful person who dances* is not.
  2. Compounds are systematically unambiguous (in the relevant sense), even though they are structurally isomorphic to *beautiful dancer*.

✳ ***Williams' explanation***

- Ingredients: blocking and shape conservation
- First, compounds are not ambiguous because both readings can be transparently represented, given that any pair of nouns can be concatenated, bar none:[3]

  (10) a. [swan [boat book$_{H}$]$_{H}$] ↜ swan [BOAT book]

  b. [[swan boat$_{H}$] book$_{H}$] ↜ [SWAN boat] book

- Second, *a beautiful person who dances* is not ambiguous because there is a comparable form that transparently represents the "high" reading:

  (11) a. [beautiful [person dance]] ↜ beautiful [person who dances]

  b. [[beautiful dance] person] ↜ person who [dances beautifully]

- Finally, *a beautiful dancer* is ambiguous because there is no other comparable form transparently representing the "high" reading:

  (12) a. [beautiful [dance **-er**]] ↜ [beautiful$_{A}$ [dance$_{V}$ -er$_{N}$]$_{N}$]$_{N}$

  b. [[beautiful dance] **-er**] ↜ ??

⇒ Languages seek isomorphic matches between related structures—here, surface structure and LF—, and accept nonisomorphic matches only when isomorphic matches are missing.[4]

[3] I'm being a bit fast-and-loose with the LFs here, but I hope the gist is clear.

[4] As Williams points out, this can be taken as an application of Pāṇini's Principle (or the Elsewhere Condition).

1.2 The asymmetry of root compounds

- In English, any two nouns can be compounded:

  (13) N + N = N

- Some meaning that connects the nouns can be concocted, the only inhibition being that the head sets the "major dimension":

  (14) a. *spaghetti monster*: a monster made of spaghetti, a monster who only eats spaghetti, a monster that hides in spaghetti, etc.

  b. *monster spaghetti*: spaghetti made for monsters, spaghetti made of monsters, spaghetti with a monster on the package, etc.

- For so-called *dvandva* compounds, the asymmetric relation is more subtle, but nonetheless detectable:

  (15) a. baby athlete

  b. athlete baby

  (16) a. pet cat

  b. cat pet

- For concreteness, let us assume that compounds are interpreted by the following semantic rule:

  (17) $[\![\mathrm{N}_1\ \mathrm{N}_2]\!] = \mathrm{R}(\mathrm{N}_2, \mathrm{N}_1)$, where $\mathrm{R}(x, y)$ is some asymmetric relation R between x and y

⇒ ***Question***
Why does the relation R have to be asymmetric?

∗ ***Williams' explanation***

– The asymmetry of R transparently reflects the asymmetry of the syntactic head-complement relation:

(18) a. $[_{H}$ H Comp] ↜ R(H, Comp)
b. $[_{H}$ Comp H] ↜ R(H, Comp)

– In other words, the asymmetry of R is the result of shape conservation:

(19) a. baby athlete ↜ a thing of the same type as *athlete* ⇝! athlete baby
b. baby athlete ↜! a thing of the same type as *baby* ⇝ athlete baby

1.3 Synthetic compounds

- Complement-taking deverbal nouns follow a more precise compounding rule than ordinary root compounds:

(20) a. church goer, movie goer, conference goer
b. *goer

(21) a. coffee maker, film maker, cabinet maker
b. ??maker[5]

- The standard analysis is to posit a special rule for these synthetic compounds, which operates over the thematic/subcategorization structure of a lexical item:[6]

(22) a. go PP ⇒ *Add affix*
b. go-er PP ⇒ *Insert subcategorized material*
c. go-er [to church] ⇒ *Compound*
d. church go-er

⇒ Thus, we have two rules for English compounding: the root rule and a synthetic rule (or possibly, a set of synthetic rules).

- ***A blocking relation?***

– The outputs of the two rules are suspiciously similar: both give rise to head-final structures, with identical accent patterns.

(23) a. $[_{N}$ SWAN boat]
b. $[_{N}$ CHURCH goer]

– The root rule could in principle derive synthetic compounds, since "some relation R" could as well involve the thematic structure.

⇒ Is the synthetic rule redundant then?

– Let us think of the two rules as being in a blocking relationship: the synthetic rule blocks the more general root rule, thereby preventing the root rule from deriving synthetic compounds.

[5] This example is perhaps in a state of flux, becoming an ordinary root compound.

[6] Roeper and Siegel (1978)

⇒ ***Problem: Bad synthetic compounds***

- Consider nominalizations derived from ditransitives, where the two thematic roles must be realized in a particular order:

  (24) a. army gun supplier
  b. *gun army supplier

- Why is (24b) ungrammatical? In particular, why can the root rule not produce it? It cannot be blocking, because the synthetic rule is unable to produce it as well.

- Moreover, *army supplier* itself is a valid compound, and can in principle be further compounded—just not with the goal argument of *supplier*:

  (25) a. army supplier
  b. wholesale army supplier

- All else equal, the root rule should be able to combine *gun* and *army supplier*:

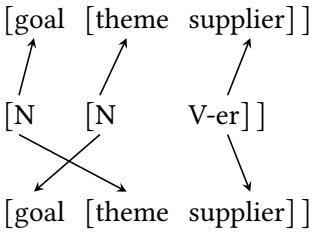
  (26) a. **Syntax**
  gun + army supplier = gun army supplier
  b. **Semantics**
  R(army supplier, gun)

∗ ***Williams' explanation***

- Both **gun army supplier* and *army gun supplier* are trying to realize the same thematic structure, which (by assumption) has only one representation:

  (27) a. [goal [theme *supplier*]]
  b. *[theme [goal *supplier*]]

- This thematic structure is most transparently represented by a (morphological) structure in which the highest N is mapped to the goal:

  (28)
  

⇒ Thus, R can be any imaginable relation. However, for a given representation relation, R must maximize isomorphism.

⇒ A compound does not have to represent a thematic structure. But if it does, it must do so in the best possible way. Thus, the root rule appears to be constrained by the synthetic rule.

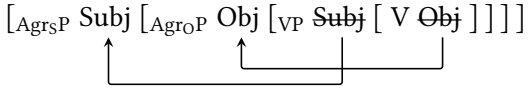
- "The account [of synthetic vs. root compounds] in terms of rules is insufficient in an important way and can be remedied only by reference to something like representation. Therefore, we may as well devote ourselves to solving the problem of representation and in the end be able to forget about the rules." (Williams 2003:13)

1.4 Parallels in the literature

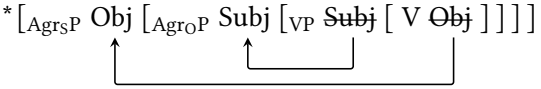
❶ ***Equidistance***

– Let us assume that in order to get Case, Obj must raise to [Spec, Agr_OP] and Subj must raise to [Spec, Agr_SP]:

(29) a. **Intersecting derivation**



b. **Nesting derivation**



– The intersecting derivation should, all else equal, be ungrammatical because it violates minimality.

– ***Chomsky's (1993, 1995) answer***

* V raises to Agr_O, thereby "extending the domain" of Obj.
* As a result, Subj and Obj are, by definition, equally distinct from anything outside the domain of V–Agr_O.
* Therefore, movement of Obj over Subj to [Spec, Agr_OP] is allowed because there is no shorter possible movement step—only an equally-short movement step of Subj.
* The nesting derivation is ruled out in a fairly complicated way: In short, the trace of Subj blocks movement of Obj, so that it cannot get Case, thereby crashing the derivation.[7]

[7] See also Bobaljik and Jonas (1996).

⇒ ***In terms of shape conservation***
Williams contends that Chomsky's analysis promotes shape conservation without explicitly saying so.

(30) [agent [V_{pred} theme]]
↓ ↓ ↓
[NP_{nom} [$V_{Case\ assigner}$ NP_{acc}]]

❷ ***Holmberg's Generalization***

– Holmberg (1986, 1999) famously observed that OBJECT SHIFT (OS) must be accompanied by verb movement (data from Icelandic):[8]

[8] This generalization holds across the Scandinavian languages, though the languages differ in what is eligible to undergo OS and whether it is obligatory.

(31) **HOLMBERG'S GENERALIZATION**
An object α cannot undergo object shift over a category β if β is phonologically visible and β asymmetrically c-commands α.
[Holmberg 1986, 1999; Holmberg and Platzack 1995]

(32) a. að Jón keypti ekki bókina — V neg NP
that Jon bought not the-book
'that Jon didn't buy the book'
b. að Jón keypti bókina ekki t_V t_{NP} — V NP neg

(33) a. Jón hefur ekki keypt bókina. aux neg V NP
Jon has not bought the-book
'that Jon didn't buy the book'
b. *Jón hefur bókina ekki keypt t_{NP}. aux NP neg V

– In a ditransitive, either the higher NP can OS or both NPs can OS, as long as they maintain their relative order:

(34) a. NP V ekki NP_1 NP_2

b. NP V **NP_1** ekki ___ 1 NP_2

c. *NP V **NP_2** ekki NP_1 ___ 2

d. NP V **NP_1** **NP_2** ekki ___ 1 ___ 2

e. *NP V **NP_2** **NP_1** ekki ___ 1 ___ 2

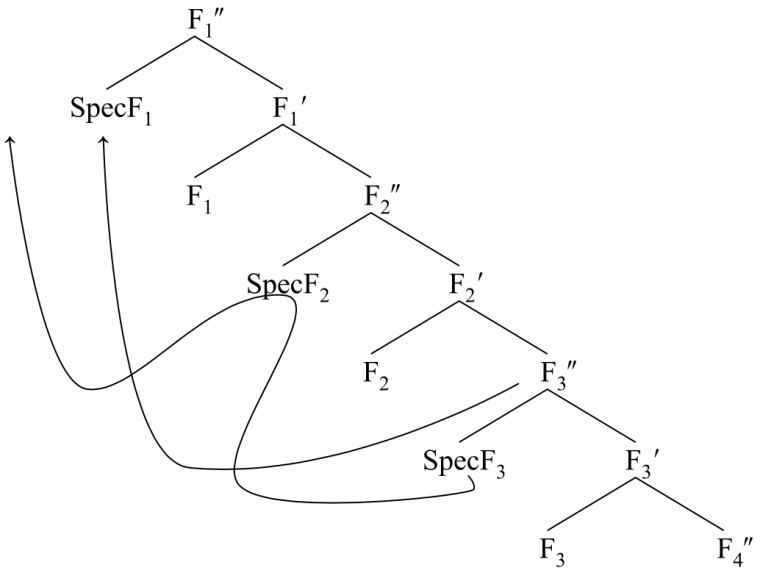
⇒ ***In terms of shape conservation***
Holmberg's Generalization is very transparently shape conservation: V and the NPs inside VP must maintain their hierarchical/linear order.[9]

– Viewing Holmberg's Generalization in this light also explains why it does not seem to hold for V-final languages: leftwards movement of the object preserves the original order.

(35) Sie hat Peter gestern gesehen. [German]
she has Peter yesterday seen
'She saw Peter yesterday.'

❸ ***In Antisymmetry***
Work within Antisymmetry frequently utilizes a remnant-movement derivation where [Spec, XP] raises out of XP, the remnant XP moves, and then the original [Spec, XP] moves again. This derivation preserves the shape of the original XP:[10]

(36)



[9] See also Fox and Pesetsky (2005).

[10] Generally, this is not the final structure, so either [Spec, XP] or the remnant XP will move again.

- ***Other examples***
  - Mirror Principle (Baker 1985)
  - General Condition on Scope (Huang 1982)
  - Faithfulness in OT (Prince and Smolensky 1993/2004)
  - Mapping between f-structure and c-structure in LFG (Kaplan and Bresnan 1982)
  - Cyclic Linearization (Fox and Pesetsky 2005)

2 Representation Theory

- "If there are systematic circumstances in which grammar seems to want to preserve relations between elements, we might consider building a model from scratch that captures these directly and without contrivance." (Williams 2003:23)

- ***Distinct levels***
  Syntax is divided into distinct levels, each of which defines a set of structures and is governed by its own set of internal rules:

  1. TS: Theta Structure
  2. CS: Case Structure
  3. SS: Surface Structure
  4. QS: Quantification/Topic Structure
  5. FS: Focus Structure
  6. AS: Accent Structure

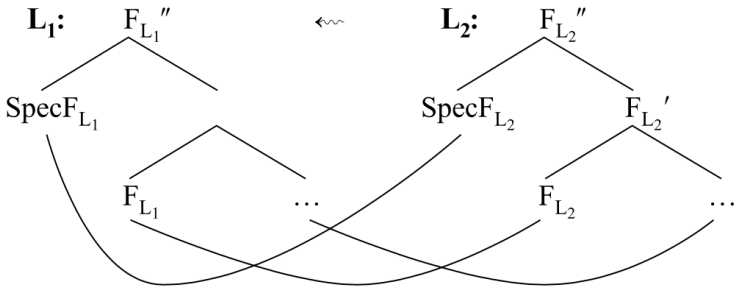
- ***Mapping between levels is maximally isomorphic***
  - These representations homomorphically map onto each other according to the overarching principle of SHAPE CONSERVATION:[11]

    (37)
    $$\begin{array}{ccccc} \text{TS} & & \text{QS} & & \text{FS} \\ \uparrow\!\!\!\downarrow & & \uparrow\!\!\!\downarrow & & \uparrow\!\!\!\downarrow \\ \text{CS} & \leftsquigarrow & \text{SS} & \leftsquigarrow & \text{AS} \end{array}$$
    $\leftsquigarrow$ = governed by isomorphy

  - Representation relations are notated with $\rightsquigarrow$ and $\leftsquigarrow$, where the arrow points *from* the *representing* structure *to* the *represented* structure.

    (38) a. CS $\rightsquigarrow$ TS ‘CS represents TS’
    b. TS $\leftsquigarrow$ CS ‘TS is represented by CS’

  - The mapping between levels is optimally *isomorphic.* Thus, mappings that preserve linear and hierarchical relations are favored:

    (39)
    

[11] The relation between SS, FS, and AS is worked out in ch. 9 of Williams (2003).

- ***When nonisomorphic mappings are tolerated***
  - A nonisomorphic mapping is necessary to have an isomorphic mapping elsewhere (thereby privileging the latter):

    (40) **English Heavy NP Shift**
    $[_{CS}$ V **NP** PP $]$ $\leftsquigarrow!$ $[_{SS}$ V PP **NP** $]$ $\leftsquigarrow$ $[_{FS/AS}$ V PP **NP** $]$

  - No other structure would be a better representation, e.g. *beautiful dancer*.

- ***Crosslinguistic variation***

  1. Languages can vary within each level. For example, FS differs between English and Hungarian:

     (41) a. **English**
     $[_{FS}$ ... Focus $]$ ⇒ Focus is rightmost

     b. **Hungarian**
     $[_{FS}$ Topic Topic ... Focus [V ...]] ⇒ Focus in the left periphery

  2. Languages can vary w.r.t the weights placed on representational faithfulness between different levels. For example, English and German differ in what SS should better represent:

     (42) a. **German**
     SS $\rightsquigarrow$ QS > SS $\rightsquigarrow$ CS ⇒ Scrambling (often) disambiguates scope

     b. **English**
     SS $\rightsquigarrow$ CS > SS $\rightsquigarrow$ QS ⇒ Scope ambiguities abound

- ***Additional upshots beyond shape conservation***

  1. A unique analysis of embedding, in which an item can be embedded only at the level at which it is defined:

     (43) TS $\leftsquigarrow$ CS $\leftsquigarrow$ SS $\leftsquigarrow$ AS
     $\circlearrowleft$ $\circlearrowleft$ $\circlearrowleft$ $\circlearrowleft$

  2. A phenomenon can occur at different levels with slightly different properties, e.g. anaphora (ch. 4) and focus (ch. 9).

3 Topic and focus

- ***Definitions***
  - Topic: presupposed information
  - Focus: new information
  - Normal focus is identified by what can be the answer to a question:

    (44) A: What did George buy yesterday?
    B: George bought [a HAMMOCK $]_F$ yesterday.

  - Contrastive focus arises in "parallel" structures:

    (45) John likes Mary, and SHE likes HIM.

- ***Narrow Focus and Focus projection***
  - Williams refers to "narrow Focus" and "Focus projection" without giving an explicit definition of either.
  - My best understanding: This refers to whether the accented phrase can project upwards to define a Focus larger than the accented phrase itself.
  - To illustrate, when the accented phrase is rightmost in a right-branching structure, a number of different phrases are eligible Focuses:

    (46) I [want to [see [the man [in the [red HAT]]]]].
    a. What do you want to see the man in?
    b. Who do you want to see?
    c. What do you want?
    d. What did you do?

  - In other configurations, the Focus does not project in this manner. For example, in a left branch of a left-branching structure:

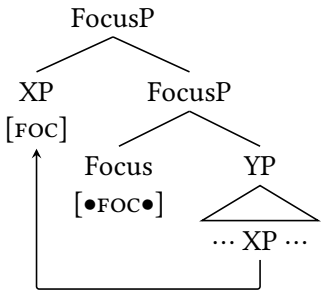
    (47) I [saw [my FRIEND's [sister]]].
    a. Whose sister did you see?
    b. #Who did you see?
    c. #What did you do?

⇒ A NARROW FOCUS does not allow FOCUS PROJECTION.[12]

[12] It isn't clear to me how necessary this notion is for his arguments, though.

- ***Our standard analysis: Checking***
  Topic and Focus each correspond to a functional element, whose denotation determines the meaning contribution, and which syntactically attracts an element to its specifier position, modelled in terms of feature checking:

(48)



∗ ***Properties of Quantification Structure (QS)***
  - QS represents both the topic structure of the clause, and the scope of quantifiers.
  - There are several arguments for the collapsing of topic structure and scope:
    1. Wide-scope quantifiers seem to behave like Topics, and unlike Focuses.
    2. Languages in which topic structure is heavily reflected in surface syntax tend to be languages in which quantifier scope is also heavily reflected, e.g. German.
    3. Focusing allows for reconstruction in the determination of scope, but topicalization does not.[13]

[13] I'm somewhat skeptical of this claim, though it holds for English.

– Quantifier scope, by default, depends on hierarchical ordering:

(49) a. [[[John was there] a few times] every day]
(every ≫ few, *few ≫ every)

b. [[[John was there] every day] a few times]
(*every ≫ few, few ≫ every)

– The exception to this rule is NPs in argument positions, which are subject to long scope assignment.[14]

[14] Williams does not elaborate on 'long scope assignment', but it could be modelled as movement *within* QS.

– Unlike quantification, topicalization seems crosslinguistically to always be associated with leftward positioning of elements:

(50) [XP* [XP* […X…] …XP] XP…]
Topic segment / non-Topic segment

(51)

a.	**[XP***	**[XP* [. . .]]]**
	Topic segment	non-Topic segment
b.	John	left early
c.	John	I saw yesterday

✳ ***Properties of Focus Structure (FS)***

– FS differs from language to language, perhaps substantially so:

(52) a. **English**
$[_{FS}$ . . . Focus] ⇒ Focus is rightmost

b. **Hungarian**
$[_{FS}$ Topic Topic . . . Focus [V . . .]] ⇒ Focus in the left periphery

– In English, we also need to include in FS—by fiat—clefts and pseudoclefts, as the pivot of these construction can be a Focus:

(53) What did John experience?
a. It was [humiliation]$_F$ that John experienced.
b. What John experienced was [humiliation]$_F$.

(54) What did John experience?
a. #It was [John]$_F$ who experienced humiliation.
b. #[John]$_F$ was who experienced humiliation.

• ***Relation between SS, QS, and FS (and AS)***

– In addition to SS ⇝ CS (where CS ⇝ TS), SS ⇝ QS as well.

– In ch. 2, Williams assumes a simplified model in which FS ⇝ SS. This is somewhat confusing though because SS is what seems to get pronounced.

(55)
TS QS
↾ ↾
CS ↜ SS ↜ FS

– In ch. 9, this issue is resolved with the introduction of Accent Structure (AS), which is what gets pronounced. AS ⇝ SS and AS ⇝ FS, so the relation between SS and FS is indirect:

(56)
TS		QS		FS
↾		↾		↾
CS	↜	SS	↜	AS

3.1 Heavy NP Shift (HNPS)

- HNPS can take place to put the Focus at the end of the clause, but not to remove a Focus from the end of the clause:[15]

(57) a. John gave ___ to Mary [all of the money in the SATCHEL].

b. #John gave ___ to MARY [all of the money in the satchel].

c. John gave [all of the money in the satchel] to MARY.

d. John gave [all of the money in the SATCHEL] to Mary.

[15] (57b) is felicitous in a "corrective" context, which we will set aside. See ch. 9 of Williams (2003) for discussion.

- As (57d) demonstrates, HNPS is always optional.
- Williams points out that "[it] is as though HNPS must take place only to aid and abet canonical FS representation, in which focused elements are final" (Williams 2003:34).
- ***The disconnect between HNPS and Focus***
  Interestingly, HNPS can apply whether or not the shifted NP is the Focus itself. All that matters is that after HNPS, the Focus must be clause final:

(58) **Licensing Focus can be a subpart of the shifted NP**
A: John gave all the money in some container to Mary. What container?
B: John gave ___$_1$ to Mary [all of the money in [the SATCHEL]$_F$]$_1$.

(59) **Licensing Focus can be larger than the shifted NP**
A: What did John do?
B: John [gave ___$_1$ to Mary [all of the money in the SATCHEL]$_1$]$_F$.

⇒ This disconnect is difficult to model in a standard Checking Theory. If HNPS is driven by focus, then it should always be the shifted NP that is the Focus.

∗ ***Williams' analysis***

– HNPS is licensed if it results in a canonical AS ⇝ FS representation.

– The mismatch between CS and SS is tolerated because of the match between SS and AS/FS:

(60) CS: [V **NP** PP] ↜! SS: [V PP **NP**] ↜ AS/FS: [V PP **NP**]$_F$

– However, a double misrepresentation, where both CS ⇝! SS and SS ⇝! AS/FS, is not tolerated, given that there are alternatives with no misrepresentation.

(61) CS: [V **NP** PP] ↜! SS: [V PP **NP**] ↜! AS/FS: [V **NP** PP$_F$]

⇒ This kind of HOLISTIC evaluation is not readily available under a standard Checking Theory.

3.2 German scrambling

- Famously, German does not (generally) allow covert scope taking, but has scrambling. English, on than other hand, does allow covert scope taking, but does not allow scrambling (modulo HNPS).

✳ ***Williams' analysis***
German and English privilege different representational mappings:

(62) a. **German**
SS ⇝ QS > SS ⇝ CS ⇒ Scrambling (often) disambiguates scope

b. **English**
SS ⇝ CS > SS ⇝ QS ⇒ Scope ambiguities abound

c. **Universal**
SS ⇝ FS/AS

- Recall that QS encodes both quantifier scope and topic structure. This makes several immediate—and correct—predictions.

❶ ***Order of two definites***
Two definite NPs in German should not be reorderable, apart from focus, because SS ⇝ CS, unless that requirement is countervailed by some other representational demand:

(63) a. dass ich [$_{IO}$ der Katze] [$_{DO}$ das Spielzeug] gegeben habe
that I the cat the toy given have

b. ^{M}dass ich [$_{DO}$ das Spielzeug] [$_{IO}$ der Katze] gegeben habe
that I the toy the cat given have

❷ ***Position of pronouns***
Definite pronouns should move leftward, since they are always D-linked:

(64) a. *dass ich [$_{IO}$ der Katze] [$_{DO}$ **es**] gegeben habe
that I the cat it given have

b. dass ich [$_{DO}$ **es**] [$_{IO}$ der Katze] gegeben habe
that I it the cat given have

❸ ***Movement over adverbs***

– A definite NP should move leftward over an adverb, so that SS ⇝ QS even though SS ⇝! CS, because definites always scope over (indefinite) adverbs:

(65) a. weil ich die Katze selten streichle
because I the cat seldom pet
'because I seldom pet the cat'

b. ?*weil ich selten die Katze streichle
(good only if contrastive focus on *Katze* (Diesing 1992) or [*Katze streichle*] (M. Noonan, personal communication))

c. weil ich die KATZE selten streichle
(only narrow focus on *KATZE*)

– This leftwards movement into the clause-initial Topic field of QS can be countervailed by the need to place narrow focus on the object, as in (65b).

❹ ***Surface scope***
Surface order should disambiguate quantification, except where Q is focused:

(66) **Movement disambiguates quantificational NPs**
a. ~&dass eine Sopranistin jedes Schubertlied gesungen
that a soprano every Schubert song sung
hat (eine > jedes)
has
'that a soprano sang every song by Schubert'
b. ~&dass jedes Schubertlied eine Sopranistin gesungen
hat (jedes > eine)
(Diesing 1992)

(67) **Unmoved NP is ambiguous iff narrowly focused**
a. &Er hat ein paar Mal das längste Buch gelesen.
he has a couple times the longest book read
'He read the longest book a couple of times.'
b. ~&Er hat das längste Buch ein paar Mal gelesen.

• ***Summary***

(68) NP must be in Case position
except if D-linked or wide-scoped
except if narrowly focused or part of a canonical narrow Focus

⇒ Williams derives this pattern from the competition of representation relations that SS must enter into.

3.3 Hungarian scope

✳ ***Basic pattern***
Moved quantifiers are unambiguous in scope, while unmoved ones are ambiguous; but *not* moving has consequences for focus.

• ***Hungarian clausal syntax in a nutshell***[16]

[16] É. Kiss (1987)

– Quantificational NPs are base-generated postverbally and then move to the left of V.

– Leftward movement fixes scope.

– To the left of the verb, going from right to left, there is a single Focus position and then a series of Topic positions:

(69) [NP_T NP_T … NP_F V …]

- ***Data***
  - If both NPs have moved, their relative scope is fixed; but if only one of them moves, it is scopally ambiguous:

    (70) a. ~&Minden filmet kevés ember nézett meg. (every > few)
    every film few people saw PRT
    b. &Kevés ember nézett meg minden filmet.
    few people saw PRT every film
    (B&S 2000, 8)

  - The accent pattern though disambiguates (70b):

    (71) a. Kevés ember nézett meg MINDEN FILMET. (every > few)
    b. Kevés ember nézett meg minden filmet. (few > every)

∗ ***Williams' analysis***
Like German, Hungarian favors SS ⇝ QS over SS ⇝ CS, but FS/AS representation can tip the balance back.

(72) FS: [… F V … (F) (F)]

(73) QS: [QP_1 [QP_2 V …]], where $QP_1 \gg QP_2$

- ***Fixed scope preverbally***
When there are two preverbal QPs and neither is focused, the fixed scope follows from SS ⇝ QS. The nonisomorphic mapping is blocked because there is always another representation that represents scope isomorphically:

(74) a. SS: QP_1 QP_2 V
QS: QP_2 QP_1 V

b. SS: QP_1 QP_2 V
QS: QP_1 QP_2 V

c. SS: QP_2 QP_1 V
QS: QP_2 QP_1 V

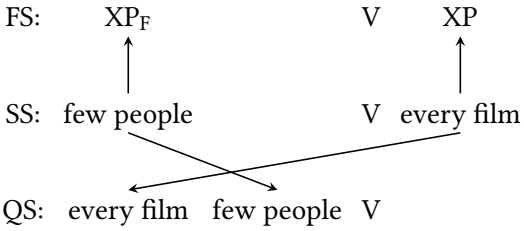
- ***Postverbal focused QP***
When a postverbal QP is focused and has wide scope, SS misrepresents QS, but this is tolerated because SS representation of FS compensates:[17]

(75) FS: XP_F V XP_F
SS: few people V every film
QS: every film few people V

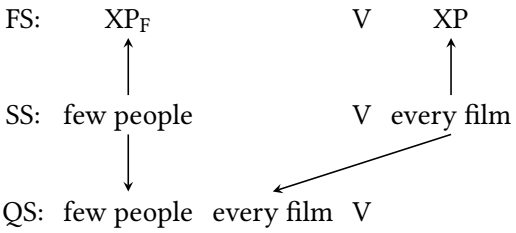
[17] As János pointed out on the Discord, a purely isomorphic mapping between FS, SS, and QS is also predicted to be possible, but shouldn't be, as the focused postverbal QP must take wide scope.

- ***Postverbal nonfocused QP***
  When the postverbal QP is not focused, then it must move to take wide scope. This is because the match with FS will not be improved by not moving, but the match with QS will be improved by moving:

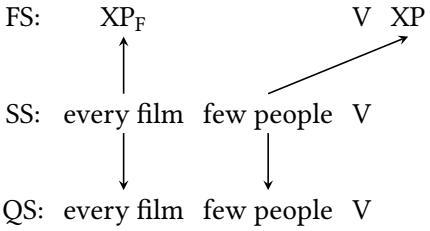
(76) a.



b.



c.



- To break it down:
  - (76b) represents narrow scope of the second QP. It is not competing with anything and wins unopposed.
  - (76a) and (76c) both represent wide scope of the second QP, but (76c) wins because (76a) has a misrepresentation of QS.
  - (76c) is not a viable candidate if the second NP were to be focused, and so (75) wins.
  - Thus, (76a) is effectively ungrammatical.

4 Discussion question

- How does RT compare with a more standard Minimalist theory? With OT?
- *(Based on Boram's question.)* Williams claims that semantics is noncompositional under RT? What exactly does that mean? Is it problematic? To what degree are there already levels of meaning in our standard theory?
- Williams has replaced movement governed by minimality with holistic mapping between levels governed by shape conservation. What do we gain with such a shift? What do we lose?

- *(Based on Joe's question.)* The details about CS are not terribly elaborate. What kinds of properties might CS have across languages? Are there any patterns that might prove problematic for having CS so early in the derivation?

- How many levels does RT need? How does this compare to our standard Cinque/Pollock-style clause structure?

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