On the nature of FormSet

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Consider unbounded unstructured sequences (UUS's) such as (1a-b), distinguished using boldface **{…}** from Merge {…}. Chomsky argues that FormSet (FS), i.e. n-ary set formation, $n \geq 2$, is a fundamental operation available to I-language. The set must be a coherent collection of syntactic objects (SO's), and members must obey some parallelism requirement to be licit, in (1a) referential similarity (but not number), in (1b) predicatehood. For $n = 2$, the output of FS differs from that of binary Merge due to this additional requirement.

1) a. **{**John, Bill, my friends, the actor who won the Oscar**}** (Chomsky, 2021: 31)
   b. **{**ran, danced, took a vacation**}**

We note relative clause stacking, as in (2a), also admits a UUS derivation. FS applies to the relative CPs in (2b), optionally spelling out as (2c), cf. (3a-b). The visible edge of each Phase is {student, {who$_{\text{REL}}$, …}}. Extraction of *an identical inscription* (IdenI) is possible if it applies *across-the-board* (ATB) style, cf. *wh*-movement in (3c). The relative CPs need not be identical, as noted in (Williams, 1978); in (2b) two are subject and one an object relative, also cf. the unaccusative/transitive vP's in (3d). IdenI will block examples such as (4a).

2) a. the student who lives here who studies English who(m) I know
   b. {student, {who {~~student~~, {lives here}}}}, {student, {who, {~~student~~, {studies English}}}}, {student, {who, {I, {know, ~~student~~}}}}
   c. the student who lives, who studies English *and* whom I know
3) a. John lived on a farm with his family (Chomsky, 2021: 32)
   b. John lived on a farm *and* with his family
   c. which book did John buy ~~which book~~ and read ~~which book~~
   d. John arrived *and* met Bill
4) a. *Who *and* when did John see and ignore him?
   b. {John, {v*, {see, who}}}, {{John, {v*, {ignore, him}}}, when}

Next, consider adjectival UUS's, as in (5a). Assuming a 1-place analysis of adjectival predication, (4a) is derived from FS on the separately formed AP's in (5b). Extraction of IdenI *hallway* produces (5c), optionally (5d) when extracting to surface subject.[1] In languages with adjectival inflection, Case/ϕ-feature concord obtains between adjectives and nominal.

5) a. a long, narrow, (and) dark hallway
   b. {long, hallway}, {narrow, hallway}, {dark, hallway}
   c. {hallway, {{long, ~~hallway~~}, {narrow, ~~hallway~~}, {dark, ~~hallway~~}}}
   d. the hallway is long, narrow, (and) dark

The fact that adjectival phrases and predicative NPs can be conjoined, as in (6a), suggests they receive a structurally similar analysis, as in (6b).

6) a. the politician is greedy and a charlatan
   b. {politician, {be, **{**{greedy, ~~politician~~}, {charlatan, ~~politician~~}**}**}}

Both Merge and FS feed the Workspace (WS), but can any collection of similar SO's feed FS? The simplest account is when θ-Merge is satisfied first, following *Duality of Semantics*.

7) a. Who did John see and greet?
   b. see, greet   c. {see, who}, {greet, who}   d. {v*, {see, who}}, {v*, {greet, who}}
   e. {John, {v*, {see, who}}}, {John, {v*, {greet, who}}}[2]
8) a. When and where did you see her? (Williams, 1978: 36)
   b. {**{**when, where**}**, {C$_Q$, {you, {INFL, {{~~you~~, {v*, {see, her}}}, **{**~~when~~, ~~where~~**}**}}}}}

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[1] We assume interpretive and defeasible pragmatic factors come into play for Spellout of (unordered) sets.
[2] In (7e), as v* is a Phase, *who* must move to the edge of v* prior to FS. Similarly, for (3c).

For (7a), the sets in (7b-d) each contain unsaturated arguments, and will require tweaks to 1-to-1 θ-role assignment.[3] Only in (7e), where θ-Merge is fully satisfied, can we proceed without additional stipulation. No θ-Merge conflict for adjuncts arises: e.g. (8a) is derived from (8b).

Let us turn to featural properties of FS. *Inclusiveness* and the *No-Tampering Condition* (NTC) prevent encoding of set Labels or features, but ϕ-features of T (and v*) must be valued appropriately. For example, in (9a) subject-verb (SV) agreement marks T as plural, despite plural not being present in the set of referential SO's. ϕ-feature matching is not a pre-condition for FS, as (9b) (and (1a)) indicate. (9b) also suggests Case isn't involved. It is no surprise ϕ-features play no part in matching if such values are not (yet) computed/available.

9) a.   John, Bill, and the actor who won the Oscar *are* taking a vacation
    b.   John believes you and me/me and you/you and I/?I and you *are* going to the movies[4]

As Landau (2016), *and references therein*, have observed, SV and determiner-noun (DN) agreement may deviate, as in (10).

10) this/*these committee/government has/have decided to cut the minimum wage again

(11a–c) suggest that DN agreement accesses ϕ-features available at FS time, e.g. *this* via Minimal Search finds NUM on *(wo)man* in (11a), *these* with *(wo)men* in (11b). (11c) indicates Minimal Search is not reducible to first conjunct only.

11) a.   this/*these man and woman   b.   *this/these men and women
    c.   *this/*these man and women/women and man (cf. *this man and these women*)

The above facts fall into place if we adopt the extraction story used in (2b), (5b) and (6b), as schematized in (12). Note that D must be an IdenI.

12) {D, {{D̶, N$_1$}, .., {D̶, N$_k$}}}

D-conjunction receives the same analysis, e.g. (13b) for (13a), in which N is the IdenI.[5] Forced identity (through FormCopy) blocks overloading of interpretable features on N, e.g. (13c), with corresponding structure (13d). Note, when identity is not forced, an interpretation is available, as in (13e), the two occurrences of *book* are repetitions (not copies).

13) a.   How many and which details need to be disclosed?
    b.   {{{how many, d̶e̶t̶a̶i̶l̶s̶}, {which, d̶e̶t̶a̶i̶l̶s̶}}, details}
    c.   *the and this/a book are on sale
    d.   {{{the, b̶o̶o̶k̶}, {this/a, b̶o̶o̶k̶}}, book}
    e.   The book (*you mentioned*) and this book are on sale

(14a–b) illustrate an unresolved puzzle for NP structure. Evaluative *sincere* enjoys wide scope, (14c) for (14a), for (14b) raising to *'s* does not predict the narrow scope interpretation.[6]

14) a.   (sincere) friend of yours and mine   (*sincere* wide scope only)
    b.   your and my (sincere) friend   (*sincere* scope ambiguity)
    c.   {sincere, {friend, {{f̶r̶i̶e̶n̶d̶, you}, {f̶r̶i̶e̶n̶d̶, I}}}}
    d.   *{friend, {{f̶r̶i̶e̶n̶d̶, you}, {sincere, {f̶r̶i̶e̶n̶d̶, I}}}}   (violates parallelism)

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[3] (7c) and (7d) imply the construction of {John, {who, {v*, {{saw, w̶h̶o̶}, {greet, w̶h̶o̶}}}}} and {John, {who, {{v*, {saw, w̶h̶o̶}}, {v*, {greet, w̶h̶o̶}}}}}, *John* and *who* at the edge of v*, respectively. We need to add a (footnote 3, cont.) stipulatory interpretive rule that *John* is both the external argument of *saw* and *greet* (and does not violate θ-theory).

[4] Speakers may employ explicitly memorized stylistic rules to sort between these options.

[5] *Which one* can be simply *which*, e.g. set {{which, one}, {what, time}} in *you (have to) know which and what time* (British National Corpus/BNC). Similarly ambiguous is *what*, e.g. *which and what is its height above sea level*?, in the context *one of them is the highest station on the BR network* (BNC).

[6] English employs the idiosyncratic double (or oblique) genitive Spellout rule for post-head personal pronouns and proper nouns only, e.g. *a friend of mine/John's/the family/Prime Minister*('s). In the so-called specifier of *'s* position, we assume pronoun *you* + *'s* (*I* + *'s*) spell out as *your* (and *my*), respectively.

References

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