THE VOS PUZZLE[1]

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ABSTRACT. The subject (S) in Spanish sentences may appear post–verbally and even sentence–finally following an object (O). Further, in post–verbal SO/OS pairs, the first element asymmetrically c–commands the second element. Previous analyses of the VOS phenomenon encounter difficulties in accounting for this asymmetric c–command relation and/or for Case and subject–verb agreement involving the VOS subject. We argue here that these Spanish SO/OS pairs operate in parallel to English double–objects (Larson 1988). Based on the work of Phillips (1997) and others, we propose a top–down approach to sentence derivation which resolves the problems with VOS sentences encountered by other analyses and which allows uniform subject–verb agreement and Case marking in both null subject and postposed subject sentences.

Key words. Spanish syntax, VOS word order, top–down derivation, subject–verb agreement, Case

RESUMEN. En español el sintagma nominal de sujeto (S) puede aparecer en posiciones post-verbales e inclusive al final de oraciones, siguiendo un objeto (O). También puede aparecer en parejas Sujeto-Objeto (SO) u Objeto-Sujeto (OS), el primer elemento mandando-c al segundo de forma asimétrica. Estudios anteriores del fenómeno VOS (Verbo-Objeto-Sujeto) han encontrado dificultades para resolver casos que incluyen esta relación de mando-c asimétrico y/o Caso y concordancia de Sujeto-Verbo, incluyendo el sujeto en la estructura VOS. En este estudio planteamos que las parejas SO y OS del español operan en paralelo a las construcciones de doble objeto del inglés (Larson 1988). En base al trabajo de Phillips (1997) y otros autores, proponemos un enfoque de derivación *top-down* para resolver los problemas con construcciones VOS encontrados en análisis previos. Este enfoque permite concordancia de sujeto-verbo y marcación de Caso tanto en oraciones de sujeto tácito como en oraciones de sujeto postpuesto.

Palabras clave. sintaxis del español; orden VOS; derivación top-down; concordancia sujeto-verbo; caso

1. Introduction

The subject in Spanish sentences may appear in a variety of positions, including post–verbal position and even sentence final position following a direct object. Various accounts have been proposed, but each of them encounters difficulties, as will be discussed below. On closer inspection, it appears that in sentences with VSO and VOS word order (particularly common in interrogatives), the SO/OS pairs behave along the same lines that double objects in English do (Larson 1988). Here we propose an analysis of VSO and VOS sentence order within a top–down approach to syntactic derivation based on the work of Phillips (1996, 1997), Chesi (2007, 2015), and Sobin (2020) which overcomes the difficulties encountered by other proposals. It

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should be noted that there are limitations external to the core syntax on the employment of VOS/VSO word orders that are beyond the scope of this paper. More will be said about this below. This paper simply focuses on the question of how such word order is possible from the standpoint of syntactic theory. Section 2 discusses evidence for the asymmetric structure of SO/OS pairs, similar to the structure of English double–object pairs. Section 3 discusses problems faced by earlier analyses of such word orders. Section 4 offers a sketch of the top–down framework and sample illustrative derivations. Section 5 deals with the top–down derivation of Spanish sentences, including those exhibiting VSO/VOS order. Section 6 offers concluding remarks.

2. Asymmetry among post–verbal arguments

As seen in the Spanish questions in (1), the subject may appear in a variety of positions, in SPEC–T (1a), immediately post verbally (1b–c), and even post object (1d), common in such interrogatives.

(1)   a. ¿María ha comprado zapatos?
         María   has   bought   shoes?
        'Has Maria bought shoes?'
       b. ¿Ha cantado María?
          Has sung María?
         'Has Maria sung?'
       c. ¿Ha comprado María zapatos?
          Has bought María shoes?
         'Has Maria bought shoes?'
       d. ¿Ha comprado zapatos María?
          Has bought   shoes   María?
         'Has Maria bought shoes?'

In sentences like (1c-d), SO/OS pairs show behavior similar to that of double objects in English (Larson 1988). For instance, these pairs form a constituent which can be coordinated, as in (2).

(2)   a. ¿Ha comprado [María zapatos], y [Marta calcetines]?
          Has bought   María shoes   and Marta socks?
         'Has Maria bought shoes and Marta socks?'
       b. ¿Ha comprado [zapatos María], y [calcetines Marta]?
          Has bought   shoes   María and socks   Marta?
         'Has Maria bought shoes and Marta socks?'

Further, such SO/OS constituents, like English double objects, show evidence of structural asymmetry (Ordóñez 1998), with the first argument c-commanding the second, but not vice versa. For example, a reciprocal interpretation in English involving *each…other* is only available when the *each* argument c-commands the *other* argument. Thus (3a–b) have reciprocal interpretations, and (4a–b) do not.

(3)   a. Each person saw the other's shoes
       b. Mary mistakenly gave each person the other prize
(4)   a. The other person saw each person's shoes
       b. Mary mistakenly gave the other person each prize

Spanish SO/OS pairs show the same behavior, suggesting that like English double object pairs, SO/OS pairs in Spanish also have an asymmetrical structure. Thus we have the following:

(5)   a. Cada hombre ha visto los zapatos del   otro
        Each man   has seen the shoes of–the other (man)
        'Each man has seen the shoes of the other man'
       b. ¿Ha visto cada hombre los zapatos del   otro?
        Has seen each man   the shoes of–the other (man)
        'Has each man seen the shoes of the other man?'
       c. ¿Ha visto el otro hombre los zapatos de cada hombre?
                                                    (unacceptable as a reciprocal)
        Has seen the other man the shoes   of each man
        'Has the other man seen the shoes of each man?'

(5a–b) each have a reciprocal interpretation, indicating that the *cada* argument c-commands the *otro* argument. (5c) should be acceptable as a reciprocal if there were symmetrical c-command in the post–verbal SO pair. Since (5c) lacks a reciprocal reading (but is acceptable on non–reciprocal reading, like it's English translation), this indicates that in (5c) the first element of the SO pair asymmetrically c–commands the second.

Ordóñez (1998) offers evidence for the asymmetry of SO/OS pairs involving compliance with and violation of Principle C, as in (6).

(6)   a. ¿Qué le compraron los hermanos de Eva$_i$ a ella$_i$?   (= O's (17a))
        What cl-bought   the brothers   of Eva$_i$ for her$_i$
        'What did the brothers of Eva buy (for) her?'
       b. ¿Qué le compraron [a ella]$_i$ los hermanos (de Eva*$_i$)?   (= O's (18a))
        What cl-bought   for her$_i$ the brothers of Eva$_i$*
        'What for her did the brothers of Eva buy?'

In (6a), *Eva* is not c–commanded by an antecedent, and thus complies with Principle C. However in (6b), the presence of *Eva* in the low subject following an indirect object antecedent leads to ungrammaticality if *Eva* and *ella* are co–referential, indicating that the indirect object c–commands the subject argument.

Other evidence of asymmetry noted by Ordóñez involves the fact that a pronominal may only be co–referential with a quantifier that c-commands it. Thus, (7a) means that '*each mother introduced her boy...*', and (7b) does not.

(7)   a. [Cada madre]$_i$ le presentó (a) su$_i$ niño al   director
        Each mother cl-introduced her boy to-the director
        'Each mother introduced her boy to the director'
       b. *Su$_i$ madre le presentó (a) [cada niño]$_i$ al   director   (= O's (8b))
                                                    (unacceptable as a reciprocal)
        His mother cl-introduced each boy   to-the director
        'His mother presented each boy to the director'

This also holds for SO/OS pairs, as the data in (8–9) show. In (8a–b), with the quantifier preceding the low subject, the quantifier binds the pronominal contained in the low subject, indicting that the object c-commands the low subject.

(8)   a. ¿Qué le regaló [a cada niño]$_i$ su$_i$ amigo (para su cumpleaños)?

(= O's (10a))

   What cl-gave to each boy (IO) his friend (Su) (for his birthday)
   'What did each boy get from his friend (for his birthday)?'
   b. Aquí presentó (a) [cada niño]$_i$ su$_i$ madre   (= O's (10d))
   Here introduced   each boy (DO) his mother (Su)
   'Here, each boy, his mother introduced'

In (9a–b), with the pronominal preceding the quantifier, the binding of the pronominal by the quantifier is unavailable, indicating that the low subject does not c-command the preceding object.

(9)   a. *¿Qué le regaló su$_i$ amigo   [a cada niño]$_i$ (para su cumpleaños)?

(= O's (9a))

   What cl-gave his friend (Su) to each boy (IO) (for his birthday)
   'What did his friend give each boy (for his birthday)?'
   b. *Aquí presentó   su$_i$ madre   (a) [cada niño]$_i$ (= O's (9d))
   Here introduced his mother (Su)   each boy (DO)
   'Here, his mother, each boy introduced'

In sum, post-verbal SO/OS pairs consistently form a constituent with an asymmetrical internal structure, as do double objects in English.

3. Previous analyses

Analyses of the VOS pattern have been offered by Rizzi (1982), Jaeggli (1982), Torrego (1984), Suñer (1994), and Ordóñez. Under GB assumptions, it was possible for the subject to lower from SPEC–T to a VP adjunct position, as in (10).[2] With such lowering disallowed in later theory, the VP–internal Subject Hypothesis (Koopman & Sportiche 1991) could allow for a VP–internal subject to be raised from SPEC–VP to a VP adjunct position, as in (11), also giving an account of VOS order.

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[2] E.g. Torrego (1984: 103) says that, "Following Rizzi (1980) and subsequent works[1], I will assume that free subject inversion optionally moves the subject to the right, adjoining it to the VP."

(10)
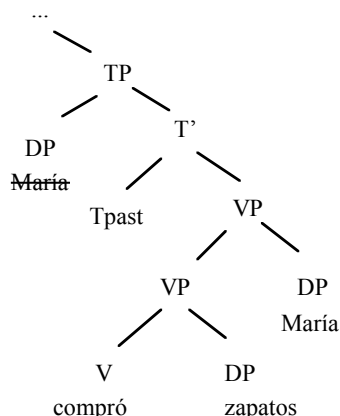
(11)
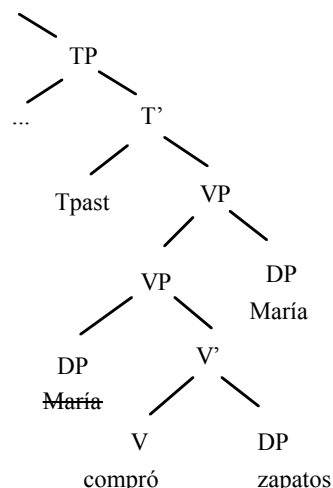
Although the structures sketched in (10–11) account for the possibility of VOS order, they fail to account for the facts of constituency and asymmetry noted above, as first pointed out by Ordóñez (1998). Beyond the evidence of post–verbal SO/OS asymmetry offered by Ordóñez (e.g. (6) above), the low subject–as–adjunct structure does not account for the possibility of SO/OS pairs acting as a constituent in coordination as in (2). Further, accounting for the possible and impossible reciprocal interpretations in (5) requires the object to asymmetrically c-command the lower subject, and the structures (10–11) fail here too.
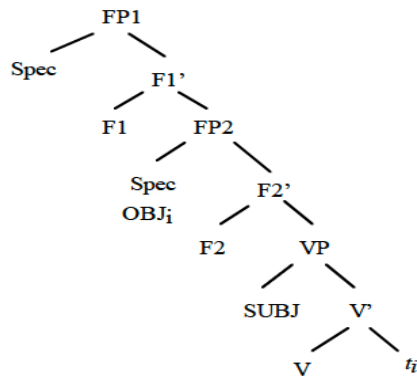
Roughly following a proposal first made by Larson in connection with the analysis of double object constructions, one might claim that in structure (12a) the phrase v′ rather than the head √+v raises to T, as in (12b).

(12) a. [$_{TP}$ T [$_{vP}$ SUBJ [$_{v'}$ √+v [OBJ [$_{√P}$ √̶ ̶O̶B̶J̶]]]]]
      b. [$_{TP}$ [$_{T}$ T [$_{v'}$ √+v [OBJ [$_{√P}$ √̶ ̶O̶B̶J̶]]]] [$_{vP}$ SUBJ]]

If the subject does not raise, then this would result in VOS order. However, in (12b), the subject and object are not members of a single constituent in isolation from T, failing to account for the coordination possibilities in (2). Further, it involves a phrase undergoing head movement, a questionable operation. Finally, depending on how copies are treated, raising v′ to T appears to result in the overt subject in VOS c-commanding the overt object, the opposite of what is needed.

Ordóñez proposes a scrambling analysis in which objects may raise to a higher functional position, as in (13).

(13)

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              FP1
             /    \
         Spec      F1'
                  /   \
                F1     FP2
                      /    \
                  Spec      F2'
                  OBJ_i    /   \
                         F2     VP
                               /   \
                           SUBJ     V'
                                   /   \
                                  V     t_i
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With the object raised to SPEC–F2, if the verb also raises, say to F1 or somewhere higher, but the subject does not raise, we derive VOS order. Further, if the object is raised, then it will asymmetrically c–command the subject, and if it is not raised, then the subject will asymmetrically c–command the object – the desired structural result. This analysis has other desirable cross–linguistic results, but it also leaves open some key questions.

One question concerns the possible lack of subject raising – the EPP effect. If, as Goodall (2001) has argued, Spanish has a consistent EPP property, then except in the case of an expletive construction, how can the subject remain low? Goodall hypothesizes that in non–expletive low–subject constructions, there is a null adverbial element occupying SPEC–T, so that, as in expletive constructions, the EPP is satisfied with the subject left in–situ.

Another question has to do with subject–verb agreement and Case marking. Such a raising analysis must have a bottom–up derivational orientation. But if that is the case, then the object would have been raised before T is merged into the structure. If, as often standardly assumed, T probes downward for the φ features of a DP (to facilitate subject–verb agreement) and to Case–mark that DP, the first DP that it would encounter is the raised object. How would T know to skip that DP and probe further for the low subject?

The top–down analysis to be offered next address these and other questions related to VOS structures.

4. A top–down approach

The analysis to follow is based on Sobin (2020). Further details of and justification for this approach should be sought there. Here, we will sketch the derivational framework, focusing on the treatment of subjects in derivation. (See Sobin 2020 for the treatment of displaced objects.)

4.1 Merge top–down

Chomsky (2005, 2013, 2015) proposes that derivation should be as simple and as computationally efficient as possible, and as far as possible should involve only conceptually necessary operations. Computational efficiency is partially achieved by limiting the derivational space in which sentence computation takes place. These considerations are central to the top–down approach to derivation assumed here.

Based in part on the work on top–down merge–right branch–right derivation of Phillips (1996, 1997) and Chesi (2007, 2015), Sobin (2020) proposes the following derivational cycle.

(14)　a. select an active head　　　　　　　　x　　　　Active head　(AH)
　　　　b. merge a selected non-head element　[x, y]　　Merge1　　(M1)
　　　　c. merge a second selected active head　[x [y, z]]　Merge2　　(M2)
　　　　d. value features　　　　　　　　[x [y$_{(x)}$, z$_{(x, y)}$]　Valuation　(Val)

The active heads mentioned in (14a) include complementizers and functional verbal heads. We will focus on the functional verbal heads here. The non–head elements merged in (14b) are typically arguments. The merger of surface subject arguments is directed by a D feature present on each functional verbal head.[3] Its D feature dictates the way in which an argument is merged into the structure. A D feature may acquire one of two values: unified ([D$_{UNI}$]) or split ([D$_{SPL}$]). [D$_{UNI}$] on a head H requires that the element in SPEC–H be copied downward immediately below H. With surface subjects (elements merged to SPEC–T), [D$_{SPL}$] on a head H requires that if expletive *there* occupies SPEC–H, a true argument must be merged immediately below H. The distribution of D features on verbal heads is as follows.

(15)　　a. T$_{past/pres}$/Modal/Inf:　　　　[D$_{UNI}$]
　　　　b. have$_{perf}$:　　　　　　　[D$_{UNI}$]
　　　　c. be$_{prog}$:　　　　　　　　[D$_{SPL}$]
　　　　d. be$_{pass}$:　　　　　　　　[D$_{SPL}$]

T combined with an auxiliary verb bears the D feature of that verb. Beyond dictating the merger of an argument as in (14b), the active head selects the next head to be merged, as in (14c), and the merged elements share values, as in (14d). In the next cycle, that second merged head becomes the new active head of (14a). The D features ultimately direct arguments downward to their points of interpretation/theta marking.

4.2 Sample English derivations
First consider the detailed derivation of sentence (16).

(16) '*Mary has seen us*'
　　　a. C$_{Decl}$　　　　　　　　　　　　　　AH

　　　b. [C$_{Decl}$　,　Mary　]　　　　　　　M1
　　　　　[*u*Nom]　[*u*Case:　]
　　　　　　　　　[φ: 3SG]

　　　c. [C$_{Decl}$　[Mary　,　　T/have]]　　M2
　　　　　[*u*Nom]　[*u*Case:　]　[D$_{UNI}$]
　　　　　　　　　[φ: 3SG]　　　[*u*φ:　]

　　　d. [C$_{Decl}$　　[Mary　,　T/have$_{(Mary)}$]]　　Val
　　　　　[~~*u*Nom~~]　[~~*u*Case~~: Nom]　[D$_{UNI}$]
　　　　　　　　　[φ: 3SG]　　　[~~*u*φ~~: 3SG]

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[3] Displaced object arguments are also directed by D features, a topic treated in detail in Sobin (2020). While in situ object arguments may be initially merged post-verbally, subject arguments are nearly always displaced arguments.

e. T/have$_{(Mary)}$ AH

f. [T/have$_{(Mary)}$, ~~Mary~~] M1
   [D$_{UNI}$]
   [~~u~~φ: 3SG]

g. [T/have$_{(Mary)}$ [~~Mary~~ Voice$_v$]] M2
   [D$_{UNI}$] [uEA:]
   [~~u~~φ: 3SG] [uACC]
   [uInfl:]

h. [T/have$_{(Mary)}$ [~~Mary~~ Voice$_v$]] Val
   [D$_{UNI}$] [~~u~~EA: Mary]
   [~~u~~φ: 3SG] [uACC]
   [~~u~~Infl: Perf]

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i. Voice$_v$ AH

j. [Voice$_v$, , √see] M2 (head merger)
   [~~u~~EA: Mary] [uIA:]
   [uACC]
   [~~u~~Infl: Perf]

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k. √see–Voice$_v$ AH (needs IA satisfaction)

l. [√see–Voice$_v$, us] M1 & Val
   [~~u~~IA: us] [~~u~~EA: Mary] [~~u~~Case: ACC]
   [~~u~~ACC] [φ: 1PL]
   [~~u~~Infl: Perf]

Resulting structure: [$_{CP}$ C$_{Decl}$ [Mary [T/have [~~Mary~~ [√see–Voice$_v$, us]]]]]
'has' 'seen'

In the first cycle (16a–d), *Mary* has merged (M1) with C$_{Decl}$, and then the next head T/*have* is merged (M2). C$_{Decl}$ values Case to *Mary*, T/*have* acquires the φ features of *Mary* and registers *Mary* as its SPEC element. In the next cycle (16e–h), D$_{UNI}$ on T/*have* requires the M1 merger of *Mary*, so *Mary* is copied and merged downward (M1), and the Voice head has merged (M2), followed by valuation of the external argument feature with *Mary* and the inflection feature by *have* (Perf). On the third cycle (16i–j), assuming that processes only apply as needed, the verb root is merged (M2), bringing with it its internal argument requirement. The root and Voice head combine, as in (16k). The only work left is merger (M1) of the object in situ to satisfy the internal argument requirement of *see*.

In abbreviated form, sentence (17) is derived as follows.

(17) '*There has been someone arrested*'
   a. [C$_{Decl}$, there]

   b. [C$_{Decl}$ [there , T/has]]
      [D$_{UNI}$]

c. [C$_{Decl}$ [there [T/has , ~~there~~]]]
            [D$_{UNI}$]

d. [C$_{Decl}$ [there [T/has [~~there~~ , be$_{pass}$]]]]
            [D$_{UNI}$]   [D$_{SPL}$]

e. [C$_{Decl}$ [there [T/has [~~there~~ [been$_{pass}$, someone]]]]]
            [D$_{UNI}$]   [D$_{SPL}$]

f. [C$_{Decl}$ [there [T/has [~~there~~ [been$_{pass}$ [someone , v_{unacc}]]]]]]
            [D$_{UNI}$]   [D$_{SPL}$]

g. [C$_{Decl}$ [there [T/has   [~~there~~ [been$_{pass}$ [someone [v_{unacc} , √arrest]]]]]]]
            [D$_{UNI}$]   [D$_{SPL}$]   [IA:]

h. [C$_{Decl}$ [there [T/has [~~there~~ [been$_{pass}$ [someone [√arrest–v_{unacc}]]]]]]]
            [D$_{UNI}$]   [D$_{SPL}$]   [IA: someone]

Here, *there* is copied downward until *be* bearing [D$_{SPL}$] is encountered, requiring an argument (*someone*) to be merged below *be*. The presence of s*omeone* occupying SPEC–√arrest–v_{unacc} is sufficient to allow it to value the internal argument requirement – it need not merge into the structural object position (and following Sobin 2020, there is clear evidence that it does not).

Following Phillips's treatment of double objects, let's assume that for a sentence like '*Jane gave books to Mary*', we are at the point in the derivation where ~~Jane~~ has satisfied the external argument requirement of '*√give–Voice$_v$*'. The rest of the derivation proceeds as follows with *√give–Voice$_v$* as the next head.

(18)   a. [√give –   Voice$_v$ books]
        [*u*IA: books] [*u*EA: Jane]   [*u*Case: ACC]
        [GA:]   [*u*ACC]   [φ: 3PL]
                   [*u*Infl: past]

       b. [√give –   Voice$_v$ [books   ~~√give   Voice$_v$~~]]
        [*u*IA: books] [*u*EA: Jane] [*u*Case: ACC]   [*u*IA: books] [*u*EA: Jane]
        [GA:]   [*u*ACC]   [φ: 3PL]   [GA:]   [*u*ACC]
                   [*u*Infl: past]   [*u*Infl: past]

       c. [~~√give   Voice$_v$~~   to   ]
        [*u*IA: books] [*u*EA: Jane] [*u*ACC]
        [~~GA~~: to]   [*u*ACC]   [GA:]
                 [*u*Infl: past]

       d. [to   Mary   ]
        [*u*ACC]   [*u*Case: ACC]
        [~~GA~~: Mary] [φ: 3SG]

Resulting structure:

[C$_{Decl}$ [Jane [T$_{past}$ ~~Jane~~ [√give–Voice$_{v/past}$ [books [~~√give Voice~~$_{v/past}$ [to Mary]]]]]]]

In (18a), *books* has M1 merged, satisfying the internal argument requirement of √*give*. In (18b), the verb, still bearing an unsatisfied goal argument, copies downward as an M2 merger. In (18c), the goal requirement of the lowered verbal head is satisfied by the M2 merger of the propositional head *to*, which in turn triggers the M1 merger of *Mary* in (18d). The merger of *to* as in (18c) is supported by possible coordinations like '*Jane gave [books to] and [pencils to] Mary*'. (See Phillips 1997.)

5. Spanish derivations

Here, we propose to show that VOS/VSO order in Spanish sentences may be derived top–down along the same lines as in the work of Larson (1988) and Phillips (1997) on the derivation of double objects discussed above. But a caveat is in order.[4] Whereas the derivation of double objects is relatively unrestricted, the same is not true of VOS/VSO order. While these orders are relatively free in Spanish interrogatives, they are more restricted in non–interrogatives due to verb type and information structural factors such as focus (e.g. Zubizarreta 1998, 1999; Fernandez–Soriano 1999; Sheehan 2010; Corr 2016; Teixeira 2016; Leonetti 2018). The aim of the analysis here is simply to explain from the standpoint of a theory of syntax how VOS/VSO orders are possible and derivable in a way the also explains EPP compliance, subject–verb agreement, Case marking and the internal asymmetry of such VPs. Bearing this caveat in mind, the system of derivation discussed above offers a relatively simple syntactic account of the derivation of sentences in Spanish, including those exhibiting VOS/VSO.

First, consider the detailed derivation of sentence (19).

(19) *'María ha comprado zapatos'* ('*Maria has bought shoes*')

    a. [C$_{Decl}$ María]   AH/M1
        [*u*Nom]   [*u*Case:]
                    [φ: 3SG]

    b. [C$_{YNQ}$ [María   T/*ha*$_{(María)}$]]   M2/Val
        [~~*u*Nom~~] [~~*u*Case~~: Nom]   [D$_{UNI}$]
                    [φ: 3SG]   [~~*u*~~φ: 3SG]

    c. [T/*ha*$_{(María)}$ ~~María~~]   AH/M1
        [D$_{UNI}$]
        [~~*u*~~φ: 3SG]

    d. [T/*ha*$_{(María)}$ [~~María~~   Voice$_v$]]   M2/Val
        [D$_{UNI}$]   [*u*EA: María]
        [~~*u*~~φ: 3SG]   [*u*Acc]
                     [~~*u*Infl~~: Perf]

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[4] Thanks to the reviewer who pointed out these limitations.

e. [Voice$_v$ √compr]   AH/M2
   [*u*EA: María]   [*u*IA:]
   [*u*Acc]
   [*u*Infl: Perf]

f. [√compr   –   Voice$_v$ zapatos]   AH/M1/Val
   [*u*IA: zapatos]   [*u*EA: María]   [*u*Case: Acc]
                       [*u*Acc]   [φ: 3SG]
                       [*u*Infl: Perf]

Here, the derivation follows what would be its English counterpart. Another possibility is that the subject is merged as in (19a) but simply goes unpronounced (e.g. '*Ha comprado zapatos*'). This allows for uniform subject–verb agreement and Case marking in null subject sentences. It would likely be the presence of rich agreement on the verb (as has been widely claimed) which in part obviates the need for pronouncing the subject.

Next, consider the derivation of the VOS sentence in (20).

(20) *'¿Ha comprado zapatos María?'*   (*'Has Maria bought shoes?'*)
   a. [C$_{YNQ}$ María]   AH/M1
      [*u*Nom]   [*u*Case:]
      [φ: 3SG]

   b. [C$_{YNQ}$ [María   T/*ha*$_{(María)}$]]   M2/Val
      [*u*Nom]   [*u*Case: Nom]   [D$_{UNI}$]
                 [φ: 3SG]   [*u*φ: 3SG]

   c. [T/*ha*$_{(María)}$ María]   AH/M1
      [D$_{UNI}$]
      [*u*φ: 3SG]

   d. [T/*ha*$_{(María)}$ [María   Voice$_v$]]   M2/Val
      [D$_{UNI}$]   [*u*EA: María]
      [*u*φ: 3SG]   [*u*Acc]
                                [*u*Infl: Perf]

   e. [Voice$_v$ √compr]   AH/M2
      [*u*EA: María]   [*u*IA:]
      [*u*Acc]
      [*u*Infl: Perf]

   f. [√compr   –   Voice$_v$ zapatos]   AH/M1/Val
      [*u*IA: zapatos]   [*u*EA: María]   [*u*Case: Acc]
                         [*u*Acc]   [φ: 3SG]
                         [*u*Infl: Perf]

At this point, the subject has not been expressed phonetically, and the derivation could end there. To allow low realization of the subject, the verb lowering strategy seen above in double object constructions comes into play. So rather than (20f), we get (20f'–h).

(20) f'. [√compr   –   Voice$_v$ zapatos]   AH/M1
　　[uIA: zapatos]   [uEA: María]   [uCase: Acc]
　　　　　　　　　　 [uAcc]   [φ: 3SG]
　　　　　　　　　　 [uInfl: Perf]

g. [√compr   –   Voice$_v$ [zapatos   √compr Voice$_v$]]   M2
　[uIA: zapatos] [uEA: María] [uCase: Acc] [uIA: zapatos] [uEA: María]
　　　　　　　 [uAcc]   [φ: 3SG]   [uAcc]
　　　　　　　 [uInfl: Perf]   [uInfl: Perf]

h. [√compr   Voice$_v$ Maria]   AH/M1
　[uIA: zapatos]   [uEA: María]
　　　　　　　　　 [uAcc]
　　　　　　　　　 [uInfl: Perf]

Here, based on the external argument information present on the lowered verb in (20g), an M1 merger as in (20h) can be utilized to phonetically realize the subject in a low position, yielding both the correct order and the asymmetrical c–command relationship with the object. The order VSO is obtained by an M1 merger of the subject before lowering the verb and externally merging the object via M1. Note in this latter case that the verb must be lowered and the object must be externally merged to satisfy the internal argument requirement of *compr*.

6. Concluding remarks

The top–down approach to derivation proposed here offers a number of advantages. With the subject merged in SPEC–T but possibly going unpronounced (an option available due to rich verb inflection), the EPP is consistently present and satisfied. NOM Case is also assigned there, making all subject–verb agreement and Case marking to the subject uniform, regardless of whether or not and where the subject physically appears. Further, no null adverbial elements are required in SPEC–T to account for the possibility of surface subjects appearing lower than SPEC–T. In addition, given that the post–verbal SO/OS pairs display asymmetric c–command as English double objects do, it is not surprising that such pairs are manifest in the surface syntax in essentially the same way (via verb lowering and further M1 merger) that double objects are.

Many questions remain, but a top–down approach to syntactic derivation warrants further investigation.

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