

## Truncation feeds intervention: Two clause type effects in Basque

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In generative literature, clause type effects have typically been modeled in one of two ways—“truncation” whereby embedded clauses are structurally reduced relative to root clauses (Haegeman 2006, Benincà & Poletto 2004), and intervention, by which non-root clauses have additional material that blocks movement available in root contexts (Roberts 2004, Haegeman 2010a,b). We present an analysis of two clause type effects in Basque that suggests that these mechanisms interact, i.e. that truncation feeds intervention.

1.  $V \geq 2$ . Basque disallows finite verbs root clause-initially (henceforth “\*V1”) as illustrated in (1) (Altube 1929, Ortiz de Urbina 1989). Like in Germanic V2, Basque allows for constituents of different categorial and information structural types to serve as first position elements, including foci and negation as in (2) and (3). Word orders that would otherwise violate \*V1 can be rescued by insertion of an expletive *ba-* morpheme as in (1). As shown in (2) and (3), expletive *ba-* only appears where it is needed to repair \*V1 violations (Ortiz de Urbina 1994, 1995).

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| (1) *(Ba)dator Omar.<br><i>ba</i> -comes Omar<br>‘Omar is coming.’ | (2) Nor (*ba)dator?<br>who <i>ba</i> -comes<br>‘Who is coming?’ | (3) Ez (*ba)dator Omar.<br>NEG <i>ba</i> -comes Omar<br>‘Omar isn’t coming.’ |
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Importantly, Basque differs from Germanic V2 in allowing more than one “first position” element to be stacked to the left to the finite verb, as in (4), where the verb can appear to the right of both a focused constituent and negation. Basque therefore seems

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| (4) JON ez omen dator.<br>Jon NEG EVID come-3SG<br>‘JON supposedly isn’t coming.’ | to obey not V2 but rather “ $V \geq 2$ ”: finite T<br>needn’t appear in strictly second position,<br>but cannot appear clause-initially. |
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A second way in which Basque \*V1 is partially akin to Germanic V2 is that this restriction interacts with clause type (Ortiz de Urbina 1994, Uriagereka 1999). \*V1 applies in root clauses (1) and embedded declaratives with the complementizer *-ela* (5). In clauses with the complementizer *-en*, which appears in embedded interrogatives, relatives and temporal adjuncts, V1 is possible and expletive *ba-* is optional, (6). Unlike Germanic embedded V2, Basque \*V1 and *ba*-insertion have no pragmatic correlates, i.e. do not vary with Main Point of Utterance interpretation nor Hooper & Thompson’s (1973) predicate classes (Truckenbrodt 2006, Julien 2009, Wicklund et al. 2009).

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| (5) *Uste dut [datorr- <b>ela</b> ].<br>think AUX come- <b>comp</b><br>‘They’ve told me he is coming.’ | (6) Egin-go dut [(ba)datorr- <b>en</b> -ean].<br>do-FUT AUX <i>ba</i> -come- <b>comp</b> -in<br>‘I’ll see her when she comes.’ |
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2. **Ordering {Aux, Neg, V}**. In Basque, the order of the finite auxiliary and extended verbal projection is sensitive to polarity: in root contexts, affirmative clauses are ordered VP-Aux, while negative main clauses are ordered Neg-Aux-VP, as in (7). Less well described is the fact that this word order alternation interacts with clause type parallel to the \*V1 restriction: for embedded declaratives with the complementizer *-(e)la*, the word order is uniformly Neg-Aux-V, as in root contexts (2a); for embedded interrogatives, relatives and temporal adverbials, which take the complementizer *-(e)n*, V-Neg-Aux is obligatory or optional (depending on clause type and dialect), as in the relative clause example in (8b). (See Ortiz de Urbina 1992, Artiagoitia 2003, Etxepare 2003 for brief discussion.) All affirmative embeddings are ordered V-Aux as in root clauses.

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| (7) a. Anek Jon ikus-i du.<br>Ane Jon see-PERF AUX<br>‘Ane has seen Jon.’ | b. Anek ez du Jon ikus-i.<br>Ane NEG AUX Jon see-PERF<br>‘Ane hasn’t seen Jon.’ |
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- (8) a. Uste dut [ez de-la eror-i.]                      b. [Error-i ez de-n] etxea  
       think AUX NEG AUX-comp fallen                      fall-PERF NEG AUX-comp house  
       ‘I think (it) hasn’t fallen.’                              ‘The house that hasn’t fallen.’

3. *Intervention & truncation.* We propose the functional sequence in (9) for (embedded) root clauses. Here, “Force” denotes a clause typing morpheme, in whose spec, the interrogative, relative etc. operators sit. We propose that the locus of variation governing availability of both V1 and V-Neg-Aux is truncation, i.e. whether the clause typing feature is merged as a separate Force head, or whether this feature is merged instead on Fin, the position of the complementizer. In the latter case, the operator will also be (re-)merged in FinP, as in (10).

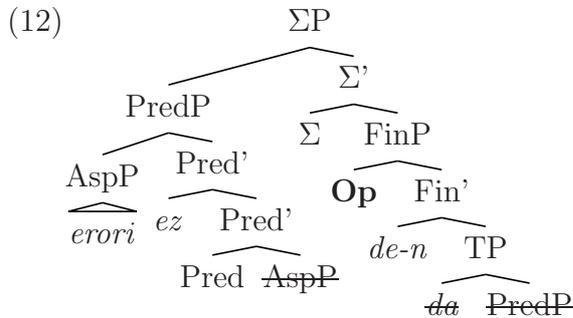
(9) [<sub>ForceP</sub> **Op** Force<sub>[Type]</sub>] [<sub>FocusP</sub> Focus [<sub>ΣP</sub> Σ [<sub>FinP</sub> Fin [<sub>TP</sub> T ...    (\*V1 & Neg-Aux-V)

(10) [<sub>FocusP</sub> Focus [<sub>ΣP</sub> Σ [<sub>FinP</sub> **Op** Fin<sub>[Type]</sub>] [<sub>TP</sub> T ...                      (V1 & V-Neg-Aux)

(11) Move the closest satellite XP, to ForceP. Else, insert *ba*-.

In the spirit of standard approaches to V2, we propose that Basque  $V \geq 2$ , reflects a phonological property of Force, namely the need for phonetic content, which we formalize in the PF rule in (11). Basque  $V \geq 2$  therefore is a consequence of XP movement to ForceP, but no finite T movement to Force (unlike in true V2). In embedded contexts where Force does not project, the rule does not apply, with the consequence that V1 is possible.

Variation in {Aux, Neg, V} ordering is explainable in similar terms. What the clause types that allow V-Neg-Aux have in common is an operator in the left periphery. We propose that V-Neg-Aux orders reflect the interaction of these operators with negation. Specifically, we propose that *ez* is a negative adverbial merged TP-internally and probed and attracted by a left-peripheral polarity morpheme, Σ (Laka 1990). When the operators are in ForceP, as in (9), they will not intervene in *ez*-to-SigmaP movement. When the operators are merged low in FinP as in (10), however, they *will* block this movement. We



propose that V-Neg-Aux orders reflect a smuggling repair (Collins 2005), whereby the extended VP—here labeled “PredP”—raises with *ez* inside, past the operator in FinP, as in (12). The fact that the main verb and dependents appear to the left of *ez* reflects roll up—raising of the complement of Pred to an outer specifier.

This predicate fronting plausibly also applies in affirmative root word orders like (7) (Haddican 2004, Etxepare & Uribe-Etxebarria 2011). Support for this comes from TP ellipsis sentences, as in (13). Here, the auxiliary in the second sentence is silent, plausibly as a banal case of TP ellipsis, following PredP extraction.

(13) Jonek lau galdera jarri ditu, eta Anek [<sub>ΣP</sub> [<sub>PredP</sub> bi erantzun] Σ [<sub>TP</sub> ~~ditu~~].

Jon four questions put has and Ane two answer

‘Jon has asked four questions and Ane has answered two.’

Support for an affirmative feature in PredP responsible for PredP fronting in (7a) and (13) comes from affirmative polarity focus sentences such as (14). Here, the extended VP raises to a left peripheral focus position and co-occurs with an affirmative denial interpre-

(14) [<sub>FocusP</sub> [<sub>PredP</sub> Etorri] [<sub>TP</sub> da Iker]].

come AUX Iker

‘Iker HAS (indeed) come.’

tation, suggesting the raised verbal constituent is the locus of the affirmative feature.

Summarizing, our unified approach to two clause type effects in Basque suggests that truncation feeds intervention. The analysis also partially reconciles Basque \*V1 with V2.