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Morphological evidence for syntactic information structural features
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The debate. Topic- and focus-features are widely assumed in the Cartographic enterprise (e.g. Rizzi 1997) and elsewhere, resulting in a picture of information structural movement to Spec-CP driven by specific features of that head, as in (1) below. Evidence in favor of such features includes a consistent form-meaning pairing: e.g., topicalization in many languages is an Ā-movement operation where the moved phrase has topical properties; and Relativized Minimality effects (e.g. Rizzi 1990). Others have argued against the existence of topic- and focus-features. Theoretically, such features have been argued to violate Chomsky’s (1995)

(1) Information structure features
   a. \[ [CP \, DP, \, C_{\text{Top}}] \, [\ldots \, i \, \ldots] \]
   b. \[ [CP \, DP, \, C_{\text{Foc}}] \, [\ldots \, i \, \ldots] \]

   Inclusiveness condition, on the assumption that information structure can only be computed after narrow syntax. Empirically, topic and focus have been argued to exhibit properties not indicative of movement-driving features, such as the apparent optionality of topicalization and focus-movement in context, and an often large set of possible landing sites without interpretive difference (cf. Neeleman & van de Koot 2008; Hamlaoui & Szendröi 2015). Alternative analyses hold that topic- and focus-features are absent from the narrow syntax. One family of accounts holds that movement is driven only by an edge- or EPP-feature (henceforth, [EF]), and different meanings arise from subsequent pragmatic interpretation (cf. Chomsky’s (2008) Discourse-/D-effect). Thus, there is a unification of Ā-movement operations into a single type of dependency driven by [EF], as shown in (2).

Our claim. We draw on crosslinguistic evidence to show that morphological operations must make reference to information structural features (henceforth IS-features) in the syntax, supporting (1) over (2). We show that only (1) is tenable given two widely adopted and independently supported theoretical assumptions: (i) narrow syntax feeds both (morpho)phonology and semantics, and these two stages of the derivation are strongly modular and (ii) a late insertion model of morphology (e.g. DM: Halle & Marantz 1993), in which narrow syntax manipulates abstract bundles of features and morphology pairs those features with exponents.

Complementizer form in Gbe. Gbe languages such as Gungbe distinguish between the form of complementizers with topics in their specifier position and those with foci, (3). Aboh (2004, 2010, a.o.) has argued that this observation necessitates syntactic IS-features.

(3) \[ \begin{array}{l}
\text{Ùn sè dò} \, [ \text{Súrù} \, \text{jà} \, [ \text{lé} \, \text{lò} \, \text{wè} \, [ \text{è} \, \text{dà} \, \text{gànjí} \, ] \, ] \, ]. \\
\text{1sg hear comp} \, \text{Suru} \, \text{TOP} \, \text{rice DET|deixis|FOC} \, \text{3sg cook well} \\
\text{‘I heard that, as for Suru, he cooked the rice really well.’} \\
\text{GUNGBE} \\
\text{(Aboh & Essegbey 2010: (53))}
\end{array} \]

If there is only one kind of Ā-movement triggering head in the narrow syntax in Gungbe (C_{[EF]}, above) then there should be no difference between \text{jà}/\text{wè}. Minimally, the morphology must be able to refer to some kind of featural distinction between the two, as in (4). The crucial point here is that in a model of morphology in which difference in form results from difference in featural composition, by differentiating two types of Ā-movement driving features we can capture the difference in morphological form.

(4) \[ \begin{array}{l}
a. \, \text{C}_{\text{[Top]}} \leftrightarrow \text{jà} \\
b. \, \text{C}_{\text{[Foc]}} \leftrightarrow \text{wè} \\
\text{Complementizer agreement in Dinka.} \text{ A similar argument comes from complementizer agreement in Dinka. As argued extensively by van Urk (2015), movement to Spec-CP in Dinka is accompanied by } \varphi-\text{agreement on C. However, topic and focus movement trigger different paradigms of agreement: topics for person and number (5) and foci for number (6). Here, we follow Baier (2018) in analyzing} \end{array} \]
the lack of person agreement with foci as an anti-agreement effect. Baier proposes that C always agrees for person and number in Dinka, but the presence of certain Ā-features on that head triggers impoverishment of person. Thus, in Dinka, the impoverishment rule on C must be sensitive to two different kinds of IS-feature: (5) results when the moving DP is a topic, (6) when it is a focus. Evidence from long-distance topicalization further supports this analysis. In (7), intermediate C agrees using the paradigm in (6), and not the paradigm in (5). Crucially, vanUrkguesthat(7)resultsfromactuallong

movement, and not movement of a lower operator to the edge of the embedded CP plus merger of a topic in the matrix Spec-CP.

If this is the case, the lack of agreement in (7) must be the same morphological rule that produces (6), albeit with a different trigger. An account of A’-movement in terms of a general edge feature would not be able to account for this difference.

Object agreement in Tundra Nenets. Transitive verbs in Tundra Nenets may be inflected for object agreement for number (singular, dual, and plural). Not all objects are able to control object agreement; the distribution of object agreement depends on lexical and semantic factors, including, crucially for our purposes here, the information structural role of the object (Nikolaeva 2014). Topics must control object agreement (8), while three classes of objects never control object agreement: wh-phrases (9); phrases marked with the focus -r’i ‘only’ (10); and focussed DPs in contrastive or answer-to-question contexts, not shown here.

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Furthermore, topics and foci condition object agreement in situ. Wh-phrases, e.g., remain in situ: they do not undergo Ā-movement, and they can be interpreted as matrix questions inside syntactic islands (11). These data show that IS can affect the form of agreement even in the absence of movement. Whether topic triggers full agreement in this case or focus triggers anti-agreement, an IS-feature distinction must be made.

Implications. These three case studies show that morphology must be able to make reference to IS-features. Assuming a model in which narrow syntax feeds semantics/morphology, and in which these later modules do not communicate, it follows that IS-features must be present in narrow syntax. Further, such a model allows for a restrictive theory of the crosslinguistic variation we have seen above. Syntax has a (perhaps invariable) set of IS-related features, and variation is rooted in the way these features are manipulated by the morphology.
References

Aboh, Enoch Oladé. 2010. Information structuring begins with the numeration. Iberia 2(1). 12–42.