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Exploring the limitations of identity effects in syntax

1. In this paper we compare two recent proposals that deal with identity in syntax, namely Alexiadou & Anagnostopoulou (2001, 2007) and Richards (2010). Our aim is to explore the empirical coverage of these two approaches testing their limitations.

2. Alexiadou & Anagnostopoulou (2001, 2007 (A&A))) proposed that the condition in (1) regulates the availability of vP-internal subjects and objects across languages:

(1) *The subject-in-situ generalization (SSG)*
By Spell-Out, vP can contain only one argument with a structural Case feature.

Based on a comparison between Indo-European (IE) and Khoisan languages, these authors argued that (1) is a universal principle that regulates argument externalization. The condition in (1) forces dislocation of arguments as a consequence of a constraint on Case checking. This led to a different conception of the EPP suggesting that it should no longer be viewed as triggering movement of the external argument to Spec,TP, but rather EPP features provide landing sites for arguments (either subjects or objects) escaping the condition in (1). The formulation of (1) was based, among other things, on the behavior of English Quotative Inversion and French Stylistic Inversion (SI). We illustrate SI here (see Kayne & Pollock 1978; Déprez 1991; Collins & Branigan 1997; Watanabe 1996, among others). SI, which involves postposing of the subject in wh-questions, relative clauses and subjunctive sentential complement, is disallowed when the vP contains a direct object (2):

(2) *Je me demande quand acheteront les consommateurs les pommes
I wonder when will-buy the consumers-NOM the appples-ACC

If, however, the direct object itself is wh-extracted or cliticized SI becomes possible again:

(3) a. Que crois-tu que manquent un grand nombre d'etudiants?
what believe-you that be-absent-from a great number of students
b. Tes cours, a quelle occasion les ont manques un grand nombre d'etudiants?
your course at which occasion them-have been absent-from a great number of students

The object must either be moved out of the vP, as in (3), or surface as a PP, as in (4):

(4) ?Quand ecrira ton frere a sa petite amie?
when will write your brother to his little friend

The above facts motivated the generalization in (5), which follows from the SSG:

(5) Subject-inversion with vP-internal subjects is prohibited in the presence of vP-internal DP objects.

3. Richards (2010) develops a general theory of 'syntactic OCP' (cf. Hoekstra 1984, Mohanan 1994, Yip 1998, Antilla and Fong 2001, Riemsdijk 2008 for previous such proposals), (6):

(6) *Distinctness:* If a linearization statement <a, a> is generated, the derivation crashes.

According to (6), syntactic nodes with the same label must not be located too close together in the tree: they must be separated by a phase boundary, or else they cannot be ordered w.r.t. each other. Richards further explores different ways of becoming distinct such as (a) adding structure via Ps in e.g. nominalizations *the destruction <u>of</u> the city* and (b) bearing/introducing distinct case morphology as in morphologically rich languages (German) and differential case marking languages (Spanish *a*). From this perspective, the ungrammaticality of (2) is a case of linearization failure: two DPs are included within a strong phase. When, however, the DP object becomes sufficiently distinct as in (4), then linearization is possible. The movement operations in (3) can also be seen as Distinctness-driven: they keep the two argument DPs (subject and object) in separate Spell-Out domains (cf. Moro 2001).

4. The idea that the SSG derives from (6) has obvious advantages. From a theoretical point of view, it is immediately explained why a constraint like (1) is imposed on syntactic derivations. On the empirical side, the effects of (1) are unified with a range of different phenomena that have received independent explanations in the literature (such as Doubl-*ing*, double infinitive filters, multiple sluicing; see Richards 2010 for details). However,

Distinctness faces a number of empirical as well as theoretical challenges. At the theoretical level, defining Distinctness across domains and languages is far from trivial. On the contrary, SSG, which is based on Case theory, is uniformly defined across languages for those domains that can be shown to be sensitive to properties of Case-checking/licensing. In other words, what counts as distinct differs within a language and across languages, while structural Case features are uniformly defined. For instance, consider *of*-insertion with the complements of adjectives, e.g. *proud of his father*. Adjectives also require prepositional objects, much like nominalizations do in English, a fact that follows from classic Case theory but is unexpected und Distinctness, since arguably the labels of A and N are sufficiently distinct. Second, there are systematic exceptions to Distinctness. Greek/Spanish/Romanian allow VSO orders with two vP-internal DPs, as discussed in A&A (2001). Distinctness could offer a solution suggesting that case morphology counts (see below). While Greek/Romanian have case morphology, albeit heavily syncretic, Spanish does not. Importantly, however, insertion of the special marker *a* in Spanish is conditioned by factors that poorly relate to Distinctness and rather have to do with the aspectual structure of predicates and structural Case (Torrego 1998). A further set of problems relates to in multiple sluicing and multiple wh-fronting. According to Richards, linearization in Japanese and German (7) is sensitive to features like [NOM], and [ACC], i.e. case morphology makes DPs distinct.

(7) Ich habe jedem Freund ein Buch gegeben, aber ich weiß nicht mehr wem welches
I have every friend a book given, but I know not anymore whom which

This predicts that these languages will not fall under SSG (a prediction apparently correct for German). This, however, raises the question as to the role of case morphology across languages, as it seems that in some languages [NOM] and [ACC] count for Distinctness but not in others. A related issue arises in the area of phonological identity and case syncretism in multiple sluicing and multiple wh-fronting languages. In German, phonological identity does not seem to be the key issue, i.e. (8) is ok:

(8) Ein Auto hat ein Haus zerstört, aber ich weiss nicht mehr **welches Auto welches Haus**
a car has a house destroyed, but I don't know any more which car which house

However, in Serbocroatian multiple wh-questions, identity and syncretism play the key role. It is not clear what regulates the parametric variation observed. We note here that in Greek, where the SSG does not hold, the counterpart of (8) is fine, supporting the idea that there is a correlation between the conditions on multiple sluicing and the SSG. This raises a more general question for Distinctness: why should morphological richness affect syntax? This is especially unexpected under views according to which morphology merely interprets syntax (Marantz 1991, Bobaljik 2006).

5. Finally, Khoisan languages pose a crucial challenge for Richards. In these languages a prepositional marker *ko* is obligatorily present in transitive constructions and absent in intransitives. (9), without *ko*, is out:

(9) **Uto dchuun-a /Kaece n!ana n!ang*
car hit-TRANS |Kaece road in 'A car hit Kaece in the road'

In order to account for this, Collins (2003) argues that *ko* is a Last Resort mechanism. It is inserted to provide a landing site for movement in constructions that would otherwise violate the *Multiple Case Condition (MCC),* a variant of the SSG:

(10) *Multiple Case Condition:* By Spell-Out, VP can contain no more than one argument with a (valued) undeleted Case feature.

For (6), the issue is that the two arguments bear distinct labels (DP, PP) and the domain in which the condition is computed (VP) is not a phase. We thus conclude that most cases of Distinctness can be explained by appealing to Case theory. Presumably the other environments discussed by Richards fall under principles that are not part of the syntactic computation but rather of PF, hence their different nature.