

Conjunction size does matter for Agreement in German

German allows for verbs to only agree with the closest conjunct, as in (1), where the verb *esse* ‘eat’ is marked first person singular, and agrees with *ich* ‘I’. I will refer to this as *Closest Conjunct Agreement* (CCA).

- (1) Dort esse/*isst ich und die Maria immer zu Mittag.
there eat.1sg/*eat.3sg I and the Mary always at noon
I and Mary always eat lunch there.

Plural agreement is also possible, as (2) shows. I will call this *full agreement*, in contrast to CCA.

- (2) Dort essen ich und die Maria immer zu Mittag.
there eat.pl I and the Mary always at noon
I and Mary always eat lunch there.

I argue that the difference between (1) and (2) is due to the size of the coordination itself [1]. (1) is coordination of clauses, (2) is coordination of DPs. These examples should not lead us to fundamentally change our assumptions of how agreement works. I present novel evidence from sloppy identity readings and binding facts in German to substantiate this analysis.

Coordination size and Agreement The literature on CCA can be broadly divided into two groups. One of the groups argues that coordination of DPs triggers plural agreement, whereas coordination of clauses results in singular agreement [1, 2]. Under such a view, CCA and full agreement differ in coordination size, but not in the manner in which dependency is established. The surface structure of clausal coordinations is the result of across the board movement of the verbal elements, or of ellipsis. Example (3) sketches out this analysis for German.

- (3) a. [_{CP} dort esse_i [_{TP} ich immer zu Mittag esse_i] und [_{TP} die Maria immer zu Mittag isst]]
there eat.1sg I always lunch eat.1sg and the Mary always lunch eat.3sg
b. [_{CP} dort [_{TP} essen [_{DP} ich und die Maria] immer zu Mittag].
there eat.pl I and the Mary always lunch

Based on various languages, proponents of the other group have argued against this view of CCA, e.g. [3, 4] for Arabic, [5] for Tsez, [5, 6] for Hindi, and [7, 8] for German. They argue that coordination in CCA cases is DP coordination. I argue *contra* [7, 8] that there are compelling arguments to analyze CCA as larger than DP coordination in German. I will present data which support an analysis of CCA as the phonological realization of larger than DP coordination.

Sloppy identity In (4), we see that the plural possessive pronoun can only refer to the complex subject when plural agreement is expressed on the verb, as in (4b), and that this is ungrammatical with singular agreement, as in (4a).

- (4) a. Dort verkauft [[der Max]_i und [ein Mann]_j]_k sein Auto/*ihr_k Auto.
There sell.3sg [[the Max] and [a man]] his_{i/j} car/*their_k car
b. Dort verkaufen [[der Max]_i und [ein Mann]_j]_k ?sein_{i/j} Auto/ihr_k Auto.
There sell.pl [[the Max] and [a man]] ?his_{i/j} car/their_k car

The most natural interpretation for (4a) is a sloppy identity reading, in which Max is selling Max’s car and a man is selling his own car. (4b) with either pronoun cannot have such an interpretation. In a theory which treats CCA as coordination of larger than DP constituents, and full agreement as coordination of DPs, such facts are expected. Notice that CCA in such a view involves the elision of an object DP in (4a) and should therefore have a sloppy interpretation in a similar manner as (5) does.

- (5) Dort verkauft ein Mann sein Auto und der Max auch.
There sells a man his car and the Max too
‘A man sells his car there and Max does so too.

If we view the CCA case in (4a) to be DP coordination, these sloppy identity facts are hard to capture.

Binding Another argument for an analysis which treats CCA as the overt realization of a larger than DP coordination is that it can readily account for the German binding facts in (6) in a straightforward manner. In (6a), a sentence with CCA, the coordinated quantifier phrases are unable to bind a plural pronoun, but they are able to bind a singular pronoun. In a sentence with full agreement, the same quantifier phrases cannot bind a singular pronoun, but only a plural pronoun as illustrated (6b).

- (6) a. Heute verkauft [kein Mann]_i und [kein Junge]_j mehr seine_{i/j} / *ihre_{i/j} Schuhe.
 today sells.sg no man and no boy still his/ their shoes
 ‘No man and no boy still sells his own shoes today.’
 b. Heute verkaufen [kein Mann]_i und [kein Junge]_j mehr *seine_{i/j} /ihre_{i/j} Schuhe.
 today sells.sg no man and no boy still his/ their shoes
 ‘No man and no boy still sells his own shoes today.’

Comparing (6a) with (7a), and (6b) with (7b), one can see that sentences with CCA behave the same as a sentence with a singular subject with respect to binding. In turn, a sentence with full agreement behaves like a sentence with a plural subject.

- (7) a. Heute verkauft [kein Mann]_i mehr seine_i / *ihre_i Schuhe.
 today sells.sg no man still his /their shoes
 ‘No man still sells his own shoes today.’
 b. Heute verkaufen [keine Männ]_i mehr *seine_i /ihre_i Schuhe.
 today sells.sg no man still his /their shoes
 ‘No man still sell their own shoes today.’

This is to be expected in an analysis where CCA is the result of biclausal coordination, and full agreement is the result of DP coordination. DP coordination behaves plural in syntax and triggers plural agreement on the verb. It can also bind a plural pronoun. Since CCA is the result of clausal coordination the subject DPs in (6a) are subjects of two different clauses and can therefore not function as a plural subject.

Conclusion Treating the difference between CCA and full agreement as a question of coordination size has the advantage that no special assumption needs to be made about the lexical nature of conjunction, nor about the way dependencies between the subject and the verb are established. Whatever happens in the case of full agreement also happens in the case of partial agreement. The difference between the two is the amount of unpronounced material. Reducing CCA to a question of coordination size puts more burden on PF. There, processes of ellipsis of phonological material have to be assumed. Cross-linguistic and language-specific PF constraints will be needed to prevent CCA from occurring where it should not. A view of broad elision of phonological material is consistent with other phenomena in German such as Contrastive left dislocation [9]. Analyzing CCA as an overt marking of clausal coordination allows for extending the analysis of CCA to some other cases of non-full agreement. For example, sentences with Quantifier coordination and Contrastive Topic coordination both allow for partial agreement in preverbal subject position. An example for the latter is given in (8). A biclausal analysis is extendable to these cases.

- (8) Context: 22 chairs are in the attic, and we are trying to figure out how they got there.
 A: Who carried all these chairs into the attic?
 B: Die Johanna und der Peter hat einen Stuhl hinaufgetragen.
 The Johanna and the Peter has one chair up-carried.
 Johanna and Peter have each carried a chair up to the attic (that’s all I know)

References

- [1] Aoun, J., Benmamoun, E., and Sportiche, D. *Linguistic Inquiry* 25(2), 195–220 (1994). [2] Aoun, J., Benmamoun, E., and Sportiche, D. *Linguistic Inquiry* 30(4), 669–681 (1999). [3] Munn, A. *Linguistic Inquiry* 30(4), 643–668 (1999). [4] Larson, B. *Linguistic Inquiry* 44(4), 611–631 (2013). [5] Benmamoun, E., Bhatia, A., and Polinsky, M. *Linguistic Variation Yearbook* 9(1), 67–88 (2009). [6] Bhatt, R. and Walkow, M. *U. Penn Working Papers in Linguistics* 17, 11 – 20 (2011). [7] Johannessen, J. B. *Linguistic Inquiry* 27(4), 661–676 (1996). [8] Steiner, I. In *The fruits of empirical linguistics*, Winkler, S. and Featherston, S., editors, volume 2 of *Studies in Generative Grammar*, 239–260. de Gruyter Berlin, Berlin (2009). [9] Ott, D. *Linguistic Inquiry* 45(2), 269–303 (2014).