Two Types of Closest Conjunct Agreement

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Closest conjunct agreement (CCA) has been granted a special status in linguistics since it indicates potential relevance of the linear order in a grammar that is considered hierarchical. Previous literature has largely treated it as a homogeneous set of phenomena. This paper argues for two different types of Closest Conjunct Agreement with distinct properties which grant different analyses.

Type 1 CCA: CCA refers to cases where an agreement target shows agreement with the linearly closest conjunct. For example in Arabic (1a), the verb *za* shows singular agreement with the first/closest conjunct *Omar*, not the entire conjunction *Omar w Karim*. The same pattern is observed across languages and features, (1b) is an example of CCA in gender in Serbo-Croatian where the verb shows agreement with the second/closest conjunct *odela*.

(1)   a.   **za**   [**Omar**$_{SG}$ w   Karim.]$_{PL}$
           came.SG [Omar   and Karim]
           'Omar and Karim came.' (Larson 2013)

      b.   [Sve haljine   i   sva **odela**]   su juče   **prodata**.
           [all   dress.F.PL and all suit.N.PL] are yesterday sell.PRT.N.PL
           'All dresses and all suits were sold yesterday.' (Murphy & Puškar 2018)

CCA of the kind in (1), labeled as *Type 1 CCA*, has been looked into extensively in syntax, morphology, and psycholinguistics. See Nevins & Weisser (2019) for an overview. Previous studies treat CCA as a set of homogeneous phenomena schematized in (2) with properties in (2a-c).

(2)   [$_{ConjP}$ DP$_1$ and   DP$_2$]   Target

      a.   Two DPs form a conjunction phrase ConjP.
      b.   The agreement target is external to the ConjP.
      c.   The competing agreement controllers are the closest conjunct (DP$_2$) and ConjP.

Given (2), most approaches have attributed the trigger of CCA to certain properties of ConjP or the Conj head which prevent ConjP from acting as an agreement controller. Once ConjP is not eligible to control agreement, the agree operation picks the closest conjunct as the controller, e.g. via equi-distance in Bošković 2009. Other approaches, e.g. the rule-ordering approach in Murphy & Puškar (2018), involve the Conj head being the mediator of two DP conjuncts.

Type 2 CCA: This paper argues that there is another set of CCA phenomena that show distinct properties from (2) and cannot be accounted for with the existing analyses of Type 1 CCA mentioned above. This *Type 2 of CCA* can be seen in certain cases of right node raising (RNR). In (3) in Dutch, the two clauses share one T'. Yatabe (2003); Kluck (2009); Grosz (2015); Shen (2018) argue that the verb *had*.SG agrees simultaneously with the embedded subjects in the two clause: *wij* and *jij*. When the subjects mismatch in number features (PL and SG), the shared T agrees with the linearly closest agreement controller (*jij*). Type 2 CCA is also observed in object agreement in Hindi. In (4), *khariid-ii thii* is shared by 'yesterday a purse' and 'today a sari', simultaneously agreeing with both objects. It shows closest conjunct gender agreement with *saarii*.F.

(3)   Anna beweerde dat wij, maar Steven zei   dat **jij**,   [$_{T'}$het gas aan **had**   laten staan].
      Anna claimed   that 1.PL but   Steven said that 2.SG, [$_{T'}$the gas on have.SG let   stand]
      'Anna claimed that we, but Steven said that you left the gas open.' (Kluck 2009)

(4)   Rina-ne kal   ek batuaa   aur aaj   ek **saarii** [**khariid-ii thii**]
      Rina-ERG yesterday a purse.M.SG and today a   sari.F [buy-PERF.F be-PST.F.SG]

'Rina had bought a purse yesterday and a sari today.' (Bhatt & Walkow 2013)
Following the standard assumption that non-constituents cannot be conjoined, neither the embedded subject DPs in (3) nor the object DPs in (4) form a ConjP as a potential agreement controller, unlike Type 1 CCA in (1). Instead, the conjunction is of two larger constituents: full matrix clauses in (3) and VPs in (4). Previous studies have shown that the agreement target involved in Type 2 CCA is not external to the conjunction but inside both conjuncts, as is sketched out in (5) for (3). As a result, the competing agreement controllers in this type of CCA are not the closest conjunct and the ConjP (as the ConjP is not an agreement controller at all). Instead, they are the DPs embedded inside the first and the second conjunct. (6) summarizes these properties of Type 2 CCA.

(5)
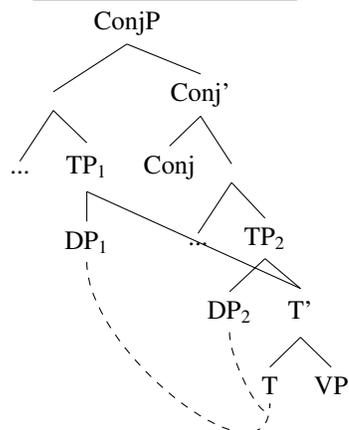
(6) a. It does not (necessarily) involve conjunction of two DPs.
     b. The agreement target is not external to the conjunction.
     c. The competing agreement controllers are DP_1 in the first conjunct and DP_2 in the second conjunct.

As a result of these empirical properties of Type 2 CCA, it cannot be subsumed under the existing approaches to Type 1 CCA. The equidistance-type approach does not apply here, because the ConjP is not a viable agreement controller. The rule-ordering approach does not apply here either, because the Conj head does not mediate between the two (non-conjoined) DPs. It is clear that the trigger of Type 2 CCA does not relate to the Conj head or the ConjP. Instead, Type 2 CCA results from *multi-valuation*: one agreement target agreeing with two controllers. When agreement requires two mismatching values to be copied onto one target, Type 2 CCA is triggered due to the conflicting values on that target.

Account: Apart from what triggers it, we want to understand the operation of Type 2 CCA. There is evidence from sensitivity to syntactic distance that suggests a processing-related account. Sentences with person mismatch under disjunction are ineffable (Pullum & Zwicky 1986), which indicates that verbs agreeing with a disjunction subject are multi-valued. A sentence completion task conducted with 5 native English and 5 native German speakers confirms this claim. In (7), 3 out of 5 English participants chose *none of the above*. Crucially, none chose the CCA option (*am*). In the RNR construction (8), however, 4 out of 5 chose CCA (*am*). The same pattern has been found in German. This effect is not accounted for in any of the previous accounts for CCA.

(7) Mary or I am/are/none of the above traveling to China.
     results: *none × 3, are × 2, am × 0*

(8) Bill thinks that he, or Mary believes that I, am/is/are/none of the above traveling to China.
     results: *am × 3, am/are × 1, are × 1, none × 0*

This effect can be accounted for in a processing account for Type 2 CCA. Frazier and Duff (2018) argue for the relevance of **active syntactic memory** (ASM) in mismatch under ellipsis, which roughly corresponds to a clause. I propose that Type 2 CCA requires that the further conjunct not to be in the same ASM as the agreement target, i.e. DP_1 must be far enough to be deactivated. In (7), the first subject *Mary* is in the same ASM as the verb, thus cannot be ignored in agreement. In (8), given the clause/ASM boundary, *he* is deactivated when the verb is parsed. As a result, the verb agrees with the closest and still active subject (*I*) in (8), yielding Type 2 CCA.