

D>N>&>N constructions: Romance closest conjunct agreement vs. Germanic resolved agreement

Agreement in D>N>&>N constructions is subject to cross-linguistic variation. The literature reports that in some Romance languages, i.e. Spanish (Demonte and Pérez-Jiménez 2012) and Portuguese (Villavicencio et al. 2005) the form of the determiner solely depends on the feature specification of the linearly closest noun (i.e. the one in the left conjunct). This is also true for Italian and French (Lamoure 2020):

1) *Cette entreprise artistique et magasin d'idées séduit aussi bien Danone que les Verts.*  
**This.SG.F. enterprise.SG.F artistic and shop.SG.M of ideas [...]**

2) *Ce restaurant et pizzeria propose une bonne cuisine à base de poissons*  
 [...] **this.SG.M restaurant.SG.M and pizzeria.SG.F [...]**

However, in Germanic languages, i.e. German, Dutch and English, the determiner form in D>N>&>N<sup>1</sup> constructions must match both nouns simultaneously and is thus only acceptable if a syncretic form is available that can bridge the phi-feature mismatch (pace Le Bruyn and Swart (2014)). To my knowledge, the Germanic pattern has remained unnoticed until now.

3) *\*Dieses Restaurant und Pizzeria lädt sie auf eine kulinarische Entdeckungsreise ein*  
**This.Nom.SG.N restaurant.SG.N and pizzeria.SG.F [...]**

4) *Ebenso will er seine Zusammenarbeit mit dem Orchester und Chor MusicAeterna fortsetzen*  
 [...] **the.Dat.SG.M/N orchestra.SG.N and choir.SG.M [...]**

5) *Mit dem Chor und Orchester der Schloßkirche besteht eine enge Zusammenarbeit [...]*  
 [...] **the.Dat.SG.M/N choir.SG.M and orchestra.SG.N [...]**

In order to model this distinction, I adopt the pioneering approach by Heycock and Zamparelli (2005) (H&Z). H&Z observe that languages differ with respect to the possible interpretations of D<sub>singular</sub>>N<sub>singular</sub>>&>N<sub>singular</sub> constructions. They assume the existence of two types of languages: i.) In English type languages D<sub>singular</sub>>N<sub>singular</sub>>&>N<sub>singular</sub> constructions can receive a *split interpretation* (cf. 1), reference to two individuals) as well as a *joint-interpretation* (cf. 2), reference to one individual. ii.) Italian/French type languages lack the split-reading (cf. 3)) and only admit a joint-reading (cf. 4)):

1) This man and woman have met at a bar	3) *Ce(t) homme et femme
2) This philosopher and linguist has published a new book	4) Ce philosophe et linguiste a publié un nouveau livre

Further research has shown, that this distinction is not correlated with language family (as is the case with the agreement alternation): Spanish (Demonte and Pérez-Jiménez 2012) and Portuguese (Villavicencio et al. 2005) both admit split readings with D<sub>singular</sub>>N<sub>singular</sub>>&>N<sub>singular</sub> constructions<sup>2</sup>.

H&Z argue that the difference between English and Italian does not originate from two different structures but is derived from one common structure: [DP[D] [NumP[Num] [PIP[PI] [CoordP [NP] [Coord' [Coord] [NP]]]]]]. Further, their model is conceptually attractive as it derives the difference in meaning from one cross-linguistically stable functional meaning of *and*, i.e. *Set Product* (pace Le Bruyn and Swart (2014)).

Assuming a bipartition of the feature *number* into a morpho-syntactic (Plur:+/-) and a semantic feature (Latt(ice):+/-), they attribute the locus of cross-linguistic variation to the head Num<sup>o</sup>: Num<sup>o</sup> is inserted with an unvalued Latt feature and agrees with a valued counterpart on Plur<sup>o</sup> (-) or on singular D<sup>o</sup> (+). In type (ii) languages, Num<sup>o</sup> [Latt:-] eliminates non-singletons from the denotation of the DP, thus removing the possibility to interpret 3) plurally in type (ii) languages. In type (i) languages, Num<sup>o</sup> does not filter the denotation. Num [Latt:+] universally never results in filtering.

Lamoure (2020) adopts H&Z yet argues against the varying locus of Latt: pace H&Z Pl [Latt:-] does exist, [Latt:-] does not originate on D<sup>o</sup>. This is so, because D<sub>plur</sub>>N<sub>plur</sub>>&>N<sub>sing</sub> cases are acceptable. H&Z's model would predict those to be ungrammatical since N<sub>sing</sub> requires Latt:-, which must originate

<sup>1</sup> Notice, that *summative agreement* of the determiner is also attested in some Romance languages (cf. An & Abeillé(2017)), however not in Germanic. These are not the subject of this talk. Lamoure (2020) suggests to derive summative agreement à la Ackema & Neeleman (2018).

<sup>2</sup> German (pace Heycock and Zamparelli (2005)) patterns with English, as does Dutch (Lamoure 2020).

on singular D<sup>o</sup>, which is absent in these cases. This yields the following feature distribution: N [*u*Pl:val] [*u*Latt:\_\_\_] [*i*Gender:val.] Pl: [*i*Pl:\_\_\_] [*u*Latt:val] Num<sup>o</sup> [*i*Latt:\_\_\_] D: [*u*Gender:\_\_\_] [*u*Pl:\_\_\_]

Adopting Danon (2011)'s *relative phi completeness*, Pesetsky and Torrego (2007)'s *feature sharing* and a general possibility for *multiple agree* à la Hiraiwa (2001)<sup>3</sup>, I suggest the following:

In Romance, Pl<sup>o</sup> has to multiply agree with both nouns, in order to satisfy interpretability. If standard agree were to apply with the left conjunct, the Latt feature on the other noun would remain unvalued and the Plur feature would be left disconnected from its interpretable counterpart on Plur<sup>o</sup>. Subsequently, Num<sup>o</sup> merges and probes for Latt. Since, the previous agree operation has already connected all other instances of LATT in a feature chain, Num<sup>o</sup> can agree either with the closest goal or with all goals - both options will satisfy interpretability. When D merges, it will have to resort to standard agree with the noun in the first conjunct, as no romance language has syncretic forms in the singular, the multiple agree derivation would crash at PF. Plur is not a suitable goal - it lacks gender.

The Germanic DP differs minimally in that the architecture of the number and gender feature system is different. Both Dutch and German exhibit a "genderless plural", which is why some authors have suggested to treat the plural as the fourth gender (i.a. Sternefeld (2006), Krifka (2009)) in a binary valued, two featured system (fem:+/-, masc:+/-)<sup>4</sup>. Thus, all Plur bearing heads now bear Masc and Fem.

Consequently Germanic D<sup>o</sup> must agree with Pl<sup>o</sup> (which has multiply agreed with both nouns), since Pl<sup>o</sup> is now the closest relatively phi complete goal for D<sup>o</sup>. I assume that multiple agree will result in copying all unvalued features of the probe to accommodate the extra set of values. After transfer, PF will have to lexicalize each feature bundle separately. Following Kayne (1994), I assume that a crash obtains if the head position will be associated with two different lexical items. The only way for a multiply agreeing overt head to pass PF is for both feature bundles to point to the same lexical item, such that the given head needs to accommodate only one wordform.

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<sup>3</sup> In contrast to others (i.a. Hiraiwa (2001), Grosz (2015) Citko (2018)), I take multiple agree to generally be an option, however right/last conjunct agreement is (mostly cf. fn 5) excluded due to the closest c-command restriction. Multiple agree does not violate this condition, because it includes agree with the closest goal. Unrestricted multiple agree does not lead to overgeneralization, since multiple agree always leads to syncretic forms. If such a form is unavailable, the derivation will crash at PF (cf. below). If it is available, it will not generate an ungrammatical string, given that the form is syncretic.

<sup>4</sup> Note that this motivation is advantageous in terms of acquisition: Although Lamoure (2020) shows that D>N>&>N constructions are fully productive even in non-formal speech, the probability that a child will be exposed to them in a sufficient way is unlikely. Modelling the agreement pattern as a reflex of the feature system is thus desirable.

<sup>5</sup> I assume a definition of closeness in terms of embeddedness (cf. Chomsky 2013). However, more canonical definitions can be adopted (cf. Chomsky (2014) as well). However, since in standard X-bar theory, the D head of the subject does not c-command the D-head of the object (*The children see(\*s) Peter*), last conjunct agreement must be ruled out by other means. This can be done in different ways, e.g.: Case theory (Nevins (2005)'s *Single Case Constraint*), *Activation Principle* (Chomsky 2001).

**A.; Sadler, L.; Arnold, D. (2005):** An HPSG Account of Closest Conjunct Agreement in NP Coordination in Portuguese.