

Agreement Mismatches in Fragments and Distributed Ellipsis

There is a longstanding debate on the nature of ellipsis, with analyses often grouped in two major families, namely **syntactic approaches**, which posit fully-specified complex LF representations that simply lack a PF realization (see, e.g., Ross 1969, Fiengo and May 1994, Lasnik 2001, Merchant 2001, Sailor 2021, Saab forthcoming), and **direct interpretation** (and related) **approaches**, on which the meaning of ellipsis sites is recovered without resorting to complex unpronounced syntactic structure (see, e.g., Lobeck 1995, Ginzburg and Sag 2000, Culicover and Jackendoff 2005, Kim and Nykiel 2020).

Syntactic approaches can also be divided into two major categories depending on how the absence of PF realization and the presence of a complex LF structure in the ellipsis site are implemented. In one type of analysis, which we will call **strict-cyclic**, the omitted constituent is assembled in the narrow syntax, and ellipsis corresponds to a PF-deletion operation, an instruction to forego lexical insertion, or insertion of silent material (see, e.g., Ross 1969, Lasnik 2001, Merchant 2001, Sailor 2021, Saab forthcoming). The alternative, which we'll call **counter-cyclic**, is that ellipsis sites do not start off with a complex syntactic structure. At LF or simply after spell-out before the final LF representation, the structure corresponding to the antecedent merges in the ellipsis site, thereby providing the final representation (see Fiengo and May 1994, Oku 1998, and Landau 2021). The choice depends on balancing different types of evidence, as well as on purely theoretical commitments, and nothing excludes the possibility that different types of elliptical constructions are built with different devices (see, e.g., Chung, Ladusaw, and McCloskey 1995).

To support the **strict-cyclic** approach to ellipsis, implemented in terms of deletion, Ross (1969) puts forward the observation that the material *properly included* in the ellipsis site can control agreement reflected in morphology outside the ellipsis site (e.g. *Some people think there are no such rules, but there {*is/are} ~~such~~ rules*). Importantly, if agreement morphology is the reflex of a syntactic dependency relating two syntactic objects in a particular configuration, ellipsis sites must somehow provide syntactically active elements capable of controlling agreement. Despite its strength, this argument for hidden structure, as pointed by Craenenbroeck and Merchant (2013), has not featured prominently in the ellipsis literature. Building on Ross's line of reasoning, the present contribution considers the aforementioned issues in light of short answers to polar questions, which in several languages can consist of the lexical verb alone, sometimes accompanied by a polarity particle and an auxiliary clitic, without the (otherwise obligatory) arguments (i.e., verb-echo answers in Bosnian-Croatian-Serbian; see, e.g., (1)).

- (1)A: Jel Ivan kupuje šećer? [BCS]
Q John buy.3SG sugar
'Is John buying sugar?'
B: Da, kupuje.
yes buy.3SG
'Yes, he is.'

While data of this type pose a number of important questions (see, a.o., Goldberg 2005, Holmberg 2015, Gribanova 2017, McCloskey 2017 and references therein), the present focus will be on exploring the potential of agreement-related facts in this context to help us determine the optimal analytical approach to ellipsis of this type. The empirical basis for the discussion will come from the experimental study into switch agreement in South Slavic languages, known for their rich array of conjunct agreement strategies (resolved/default, hierarchical, and closest conjunct agreement; see, e.g., Marušič et al. 2015, Willer-Gold et al. 2016, Willer-Gold et al. 2018). More specifically, preferences for specific verbal agreement options in verb-echo answers when the subject is a

coordinate phrase (&P) show that the direct interpretation and counter-cyclic approaches do not offer viable analytical options.

The experimental study reported herein included three forced-choice three-option tasks involving verb-echo answers to polar questions, which yielded 15% (SV questions) and 28% (VS questions) of choices manifesting *switch agreement*, that is a difference in the agreement features on the verb in the question as opposed to the answer (see (2); see Willer-Gold et al. 2021, Ristić et al. 2021). Switch agreement answers were recorded with affirmative and negative answers (EXP1), the presence and absence of the auxiliary in the answer (EXP2), and in answers to SV- and VS-word order in the question (EXP3).

- (2) A: Jesu li molbe i rješenja ovjerena pečatom?
 Aux.pl Q request.F.pl and resolution.N.pl verify.N.pl by stamp
 'Were requests and resolutions verified by stamp?'
 B: Da, ovjerene=su. / ovjerena=su./ovjereni=su.
 Yes, verify.F.pl=Aux.pl
 'Yes. They were verified.'

Following Ross's line of reasoning, the presence of agreement on the verb implicates the presence of the agreement controller in the elliptical syntactic structure (as sketched in (3)), an argument against the lack of a syntactic representation in the ellipsis site.

- (3) ... [AspP ovjerene ~~VP-V~~ molbe + rješenja pečatom] ...]
 verify.F.pl request.F.pl and resolution.N.pl by stamp

The existence of switch agreement with a conjunct that was not agreed-with in the antecedent clearly shows that the agreement morphology cannot be simply recycled from the antecedent. Moreover, the specific agreement patterns observed are incompatible with an approach in which the elliptical part of the structure is represented as a pro-form: since agreement can reflect the features of only one of the conjuncts, and since these features do not necessarily match the features of a pronoun which can be used to substitute for the &P subject, postulating a pronoun as the agreement controller is untenable. Finally, with coordinations of inanimates resorting to the interpretive properties of the &P for the purpose of determining the gender of the potential pronoun in the ellipsis site is not an option even in principle, gender being a purely formal, arbitrary feature in these cases.

Moreover, if single conjunct agreement implicates feature copying at PF (via Two-Step Agree; Marušič et al. 2007, 2015, Benmamoun et al 2009, Bhatt & Walkow 2013), our results could possibly also adjudicate among syntactic approaches to ellipsis, as on this approach the PF representation of the unpronounced &P is needed to feed gender variation on the remnant verb. Crucially, while terminals cyclically assembled by syntax lack phonological realization inside ellipsis sites, they are present at PF, and thus can feed feature copying from a single conjunct. To implement this, we adopt the Q-deletion approach to ellipsis (Saab forthcoming). In this implementation, which we call *Distributed Ellipsis*, vocabulary insertion replaces Q-variables on syntactic terminals at PF (Halle 1991), and ellipsis is a syntactic operation that deletes Q-variables, thus bleeding lexical insertion in the PF cycle. Importantly, since Q-deletion doesn't implicate either obliteration of the whole syntactic terminals or any further tampering with their morpho-syntactic features, Q-less elements are still able to take part in operations within the PF-cycle (though see Saab and Lipták 2016 for further discussion on the interaction between ellipsis sites and morphological operations).

As far as single-conjunct agreement is concerned, both possible options have been attested in our experiments (i.e., the verb-echo answer can reflect the features of the first/higher (see (2) and (3)) or the second/lower conjunct). We suggest that the derivation resulting in first-conjunct agreement on the verb-echo answer involves the operation of Agree Link and Agree Copy before Linearization and Q-Replacement. However, when we observe second-conjunct agreement on the verb-echo answer, linearization has to apply before Agree-copy in order for the latter to make reference to the linear, rather than hierarchical, structure. Following linearization, it's the second conjunct which is closer to the Gender probe. In both cases, Q-less elements interact in the PF-cycle to deliver different types of verb-echo answers.

Single conjunct agreement in fragment answers would thus favor a cyclic approach with a fully-fledged PF representation of the unpronounced material (Ross 1969, Lasnik 2001, Merchant 2001, Sailor 2021, Saab forthcoming), over both the direct interpretation (Ginzburg and Sag 2000, Culicover and Jackendoff 2005, Kim and Nykiel 2020) and the counter-cyclic approaches (Fiengo and May 1994, Oku 1998, and Landau 2021). In sum, the &P-related data thus show that verb-echo answers feature a complex unpronounced syntactic structure in the ellipsis site, which feed PF operations such as Agree-Copy. This is an important finding because it shows that it is not only the case that one needs silent structure in the syntax, but at PF as well (*pace* Murphy & Müller, to appear).