Fiorin, Gaetano & Delfitto, Denis. 2025. Possessive binding in copular sentences and the logic of identification. *Glossa: a journal of general linguistics* 10(1). pp. 1–27. DOI: https://doi.org/10.16995/glossa.17294



# Open Library of Humanities

# Possessive binding in copular sentences and the logic of identification

**Gaetano Fiorin,** Department of Humanities, University of Trieste, Trieste, Italy, gaetano.fiorin@units.it **Denis Delfitto,** Department of Cultures and Civilizations, University of Verona, Verona, Italy, denis.delfitto@univr.it

Given the early nineteenth-century view according to which the copula is ambiguous between identity and predication, (pronominal) binding facts in copular structures have been taken to be evidence for a unified predicational analysis. This contribution supports the claim that binominal copulars are not ambiguous, while rejecting the familiar hypothesis that one of the DPs involved is necessarily a predicate. First, we show that binding of possessive pronouns is in fact generally allowed in binominal copulars, contrary to the received wisdom. Second, we show this to be compatible only with rejecting Longobardi and Moro's small-clause analysis, whereby one of the two DPs is a predicate, and with adopting the view that the two DPs are related by an abstract head, which we interpret as a silent predicate of asymmetric identification. We further argue that the cases in which binding is illegitimate involve strict identity under pragmatic strengthening, whose result is semantically awkward and can only be rescued in pragmatically supportive contexts.

*Glossa: a journal of general linguistics* is a peer-reviewed open access journal published by the Open Library of Humanities. © 2025 The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution 4.0 International License (CC-BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. See http://creativecommons.org/licenses/by/4.0/. **3OPEN ACCESS** 

# 1 Introduction

#### 1.1 Possessive binding in copular structures

This contribution aims at showing that binding facts in binominal copulars do not provide a compelling argument (contrary to what argued in Moro 2017) in favour of a unified predicational analysis of copular structures. The familiar argument holds that a possessive pronoun inside the postcopular DP cannot be bound from outside the DP, which cannot thus count – so runs the argument – as the minimal binding domain for the application of Principle B, under its standard GB-version. In turn, this follows only if the postcopular DP is a predicate, as in Moro's analysis, and not an argument, as is the case in the Russellian approach to copulars as equative structures.

#### 1.2 A new original proposal

In the following sections, we show that possessive binding is generally possible in binominal copular sentences. However, this is the case only under a radical re-interpretation of the meaning of these sentences, which are no longer taken to instantiate predication (one of the two DPs expresses the property that is ascribed to the other DP) but are held to instantiate a relation to which we will refer in what follows as asymmetric identification: a relation (to be illustrated in detail in section 4) whereby the referent of one of the two DPs is identified by means of all the properties that are ascribed to the referent of the other DP. Syntactically, the approach we propose entails that both DPs count as arguments: one acts as the *identifier* and the other as the *identified*, abstracting away from the distinction between canonical and inversion structures (Moro 1997). However, this does not entail adopting an equative analysis in terms of numerical identity<sup>1</sup> between the objects referred to by the DPs. In fact, the burden of the new relational interpretation that we propose for binominal copulars is discharged into a silent predicate H of asymmetric identification, which roughly corresponds to an interpretively active variant of 'relators' as defined in den Dikken (2006). We thus reject Moro's small-clause analysis of copulars, whereby one of the two DPs is not an argument but a predicate, as the underlying structure expressing predication, and propose instead a more canonical structure in which it is the complex [H + postcopular-DP] that expresses predication.

#### 1.3 Consequences of the proposal

Interestingly, the cases for which possessive binding was assumed to be illegitimate correspond to copular sentences where strict logical identity seems to be involved (though the argument from binding suggested that this is in fact not the case). We argue that both observations are

<sup>&</sup>lt;sup>1</sup> Throughout this paper, we will use the concept of numerical identity with its usual meaning in philosophy and metaphysics, that is, as referring to the idea of something being one and the same as itself. So, numerical identity refers to being the same thing at different times and places, whereas qualitative identity refers to two objects being virtually indistinguishable in their properties although without necessarily entailing that they are the same object.

crucial for an explanation of why binding is ruled out in those cases. Strict identity is a result of a specific instantiation (that we call *pragmatic strengthening*) of the wider class of processes currently analysed in terms of pragmatic enrichment. More particularly, strict identity results from shifting the interpretation from asymmetric identification (which, as we shall see, corresponds to a conditional logical form) to strict identity (which corresponds to a biconditional logical form). Once this is done, however, possessive binding yields a syntactic configuration involving a violation of the *i-within-i* condition. This corresponds, semantically, to the choice of an identity function, which requires a pragmatically supportive context. All in all, it is the interaction between different aspects of grammar and interpretation that provides a fine-grained explanation for the complex possessive binding facts found in binominal copulars. If we are correct, these facts warrant interesting revisions in the syntax and semantics of binominal copular sentences.

The paper is organized as follows. In section 2 we briefly present the traditional analysis of possessive binding in copulars, according to which binding is illegitimate. In section 3 we present old and new empirical evidence in favour of the hypothesis that possessive binding is in fact fully acceptable in copular sentences. In section 4, we define the syntax and semantics of asymmetric identification, while showing how the interaction between syntactic and interpretive conditions accounts for the complexity of possessive binding in binominal copulars. In section 5, we briefly draw a comparison between the approach developed in the present contribution and previous approaches to copular sentences. Finally, in section 6 we discuss some further ramifications of the proposed framework.

# 2 Ungrammatical cases

Hornstein (1984) reports that the binding configuration in (1) is ungrammatical in English.

(1) \*John, is his, cook

(3)

Similar judgements are reported by Giorgi & Longobardi (1991) for Italian:

(2) \*Gianni<sub>i</sub> è il suo<sub>i</sub> cuoco Gianni is the his cook

The ungrammaticality of these examples contrasts with the grammaticality of similar sentences with a regular transitive verb in place of the copula:

a. John, loves his, cook
b. Gianni, ama il suo, cuoco
Gianni loves the his cook
'Gianni loves his cook'

This contrast fits neatly within the general wisdom (Longobardi 1983; 1985; Moro 1997; 2010) that the post-copular DP is not an argument of the copula (conceived as a transitive identity

predicate) but the predicate itself. Being predicative, rather than referential, the post-copular DP fails to provide a binding domain. This line of explanation is implemented by Giorgi & Longobardi (1991:54–55) by adopting a definition of *complete minimal binding domain* whereby a minimal binding domain is complete with respect to a head whenever it exhausts either all the theta-roles assigned by the head or all the grammatical functions pertaining to that head. In example (2), if the post-copular DP is indeed a predicate, "Gianni" is the subject of "cuoco" and, therefore, in the same complete minimal binding domain as "suo". Then, binding of "suo" by "cuoco" violates condition B of canonical binding theory.

The ungrammaticality of the binding patterns in (1–2) has been adopted as one of the chief arguments in support of the conclusion that "the nineteenth-century semantic view according to which the copula is ambiguous between identity and predication cannot be maintained in syntax" (Moro 2017:7). In a nutshell, there is a robust and consistent line of syntactic theorizing that starts with Ruwet's (1982) empirical objections to the essentially Russellian symmetric analysis of copular as *equatives*, goes through Longobardi's proposal that all copulars share a common predicational structure (with one of the two DPs acting as argument and the other as predicate, *modulo* the difference between Higgins' (1973) predicational (*Arg-Cop-Pred*) and specificational (*Pred-Cop-Arg*) types), up to Moro's arguments that the predicational and specificational type share a common syntactic structure, whereby the specificational type (*Pred-Cop-Arg*) consists of *inversion structures* resulting from predicate raising (see also den Dikken 2006). As part of this process of radical elimination of symmetric identity from copulars, Moro (2017) observes that, whereas the binding pattern in (4b) is perfectly grammatical, the one in (4a) is not, in line with the examples considered above.

- (4) a. \*[the morning star], is its, source of energy
  - b. [the morning star], is one and the same as/identical to its, source of energy

If (4a) expressed logical identity (rather than predication), we would expect binding between "the morning star" and "its" to be as legitimate in (4a) as it is in (4b).

In this way, the argument from binding effectively adds up to the set of empirical arguments built by the syntactic stream of research referred to above, including *rightward agreement* in inversion structures (attested in such different languages as Italian, German, Dutch, Icelandic; cf. a.o. Heycock and Kroch 1999; Hartmann & Heycock 2019; Coon & Keine 2021), *cliticization* of the postverbal DP with a default non agreeing form (as is the case for *lo* in Italian), and asymmetries in the subextraction from the postverbal DP.

In what follows, we intend to show that the argument from binding fails. This is an important finding, since it potentially restores an argument for the equative analysis of copulars. In fact, the puzzling status of the postcopular DP (referential according to the binding diagnostics we will propose and predicational according to the other diagnostics) prompts an analysis of copulars

as involving the presence of a silent predicate of asymmetric identification, which ascribes an argument status to the postcopular DP, while rejecting the Russellian analysis in terms of symmetric (numerical) identity. The detailed analysis of the binding facts in copular structures offered in the present contribution is thus intended to strengthen the analysis of copulars put forward in Delfitto and Fiorin (2025).

### **3 Grammatical cases**

The literature offers some counterexamples to the contrasts discussed by Moro and exemplified above in (4). Richardson & Chametzky (1985) observe that the grammaticality of the prototypical example (1) can be rescued by providing an appropriate context, such as (5).

(5) This is a non-cooperative household; just as I am my maid, John, is his, cook

Hoeksema & Napoli (1990) report the case of (6), where the grammaticality of the binding configuration appears to correlate not only with the provided contextualization, but also with the presence of negation.

(6) Don't talk to John! Talk to his boss! John, is not his, boss!

In what follows, we will present some similar cases and demonstrate that they share specific syntactic and semantic properties.

Consider first an obvious ungrammatical case such as (7a), where the binding configuration appears to be excluded not just by the grammatical factors discussed above but also by semantic ones: Independently of the specific logical form one wishes to attribute to the sentence, it seems implausible to assert that Anna is the same individual as her own mother or, alternatively, that Anna satisfies the property of being her own mother. There are several ways to rescue the grammaticality of (7a). The first is the use of negation (Hoeksema & Napoli 1990): Sentence (7b) is grammatical if interpreted as presupposing that Anna and Anna's mother are distinct individuals and asserting that Anna is different from/not to be confused with her mother. We may imagine, for example, (7b) being uttered in a context in which someone is arguing that Anna will react angrily to some unexpected news because her mother would typically do so; the speaker wishes to reject this argument on the basis of the fact that Anna does not share the irascibility characteristic of her mother. Adverbial modification is yet another strategy to rescue the grammaticality of (7a). The binding pattern in (7c) appears perfectly legitimate. Notably, the sentence is interpreted as asserting that Anna really does have the characteristics that are typical of Anna's mother. An equivalent interpretation can be obtained in Italian by using the stranded universal quantifier "tutti". Sentence (7d) asserts that Anna has all the characteristics that are typical of Anna's mother. Similarly, sentence (7e) is grammatical under the interpretation that Anna has the same characteristics her mother had when she was young, some years ago, or if her mother had more charisma.

- (7) a. \*Anna<sub>i</sub> è sua<sub>i</sub> madre Anna is her mother 'Anna is her mother'
  - b. Anna<sub>i</sub> non è sua<sub>i</sub> madre
     Anna not is her mother
     'Anna is not her mother'
  - c. Anna<sub>i</sub> è veramente/proprio sua<sub>i</sub> madre
     Anna is really her mother
     'Anna is really her mother'
  - d. Anna<sub>i</sub> è tutta sua<sub>i</sub> madre Anna is all her mother
  - e. Anna, è sua, madre da giovane/

qualche anno fa/ con più carisma

Anna is her mother when young/ some years ago/ with more charisma

'Anna is her mother when she was young/some years ago/if she had more charisma'

Another group of grammatical examples is provided in (8). Examples (8a–d) clearly do not express numerical identity between the pre-copular and post-copular DPs. Sentence (8a), for example, does not express the identity (or lack of identity) between the artwork and its unfolding. Rather, they convey the fact that the pre-copular DP is to be (or not to be) identified based on the properties that characterize the post-copular DP. Sentence (8e) offers the interesting case of a grammatical binding pattern occurring as part of the idiomatic expression "DP<sub>i</sub> è la POSS<sub>i</sub> ombra", whose non-literal meaning is, roughly, that the subject has lost their good spirit.

- (8) a. [L'opera]<sub>i</sub> (non) è il suo<sub>i</sub> svolgimento The-artwork not is the its unfolding
   'The artwork is (not) its unfolding'
  - b. [Una star]<sub>i</sub> (non) è il suo<sub>i</sub> pubblico
    A star not is the his/her audience
    'A star is (not) his/her audience'
  - c. [Un cantante]<sub>i</sub> (non) è le sue<sub>i</sub> canzoni
    A singer not is the his/her songs
    'A singer is (not) his/her audience'

- d. [Un popolo]<sub>i</sub> (non) è la sua<sub>i</sub> storia
  A people not is the its history
  'A people is (not) its history'
- e. [Quell'uomo]<sub>i</sub> è la sua<sub>i</sub> ombra That-man is the his shadow

On the one hand, the examples considered so far appear to fall within the category of so-called predicational copular sentences. This is demonstrated by the fact that the copula agrees with the pre-copular DP (agreement with the post-copular DP is ungrammatical) and that the post-copular DP can be pronominalized by the pronominal clitic "lo" in Italian (Longobardi 1983; 1985):

- (9) Anna, non è/\*sono i suoi, genitori
   Anna not is/are the her parents
   'Anna is/\*are not her parents'
- (10) [Un cantante]<sub>i</sub> è/\*sono le sue<sub>i</sub> canzoni
  A singer is/are the his/her songs
  'A singer is/\*are his/her songs'
- (11) a. Anna<sub>i</sub> (non) è sua<sub>i</sub> madre da giovane Anna not is her mother when young
  - b. Anna<sub>i</sub> (non) lo è Anna not CL is
- (12) a.  $[\text{Un cantante}]_i$  (non) è le sue<sub>i</sub> canzoni A singer not is the his/her songs
  - b. [Un cantante]<sub>i</sub> (non) lo è A singer not CL is

On the other hand, the post-copular DP appears to have referential properties. This is demonstrated by the fact that it can be modified by a non-restrictive relative clause (13–14; Heycock and Kroch 1999) and by the fact that it can act as an antecedent (15).

- (13) Anna<sub>i</sub>, che conosci molto bene, non è/è tutta sua<sub>i</sub> madre che conosci Anna who you-know very well not is/is all her mother who you-know altrettanto bene as well
- (14) [Quel cantante]<sub>i</sub>, una persona maleducatissima, non è certo le sue<sub>i</sub> canzoni, That singer a person very rude not is surely the his/her songs che sono invece dolcissime that are instead very sweet

(15) Anna<sub>i</sub> non è [sua<sub>i</sub> madre]<sub>j</sub>, infatti *pro*<sub>i</sub> non le<sub>j</sub> assomiglia per niente Anna not is her mother in fact pro not to-her resembles at all

On the syntactic side, we are led to conclude, somehow contradictorily, that the binominal copular sentences we have considered so far are predicational, even though the post copular DP retains its referential properties. On the interpretive side, these sentences share a common interpretative pattern whereby all the properties that characteristically identify the post-copular DP also identify the pre-copular DP. Interestingly, this immediately entails that they are not equatives: There is no entailment to the effect that the pre-copular DP and the post-copular DP are co-extensional. For instance, sentence (16) does not entail that "Anna" and "her mother" are co-extensional or sentence (17) does not entail that "un cantante" and "le sue canzoni" are numerically identical objects.<sup>2</sup>

- (16) Anna<sub>i</sub> è veramente/tutta sua<sub>i</sub> madre Anna is really/all her mother
- (17) [Un cantante]<sub>i</sub> (non) è le sue<sub>i</sub> canzoni A singer not is the his/her songs

Finally, we observe that, provided the syntactic and semantic conditions described above obtain, binding of the possessive is legitimate irrespectively of whether the possessive expresses an argument or a modifier of the head noun, as demonstrated by the examples (18–21).

- (18) La pubblica opinione detesta ormai Trump. Trump, è (ormai) il suo, solo ammiratore.
  'At this point, the public opinion detests Trump. Trump is (at this point) his only admirer'
- (19) La raccolta di fondi per Trump sta andando malissimo. Trump<sub>i</sub> è (ormai) il suo<sub>i</sub> solo/principale finanziatore.
  'The found-raising for Trump is not going well. Trump is (at this point) his only/principal sponsor.'

(ii) #A singer is numerically identical to all his songs

<sup>&</sup>lt;sup>2</sup> A reviewer observes that examples like (17) cannot be really used to make the point about asymmetric identity, given that overt identity predicates can also be used with the same interpretation, as in (i):

<sup>(</sup>i) A singer is not identical with her songs

We agree. Standard identity predicates such as 'to be the same', 'to be identical', etc., are usually far from expressing logical identity (see Delfitto and Fiorin 2025). This is not to say, however, that overt and covert identity predicates are interchangeable. First, as we discuss in the present paper, the strategies of pragmatic enrichment do not work in the same way in the two cases. Second, it is always possible to force logical identity lexically, by using, for instance, a predicate such as 'to be numerically identical to', as revealed by the deviant semantic status of (ii), where asymmetric identity is required to make sense of the sentence:

- (20) Tutti stanno abbandonando Trump. Trump è (ormai) la sua sola speranza.'Everybody is abandoning Trump. Trump is (at this point) his only hope.
- (21) Gianni<sub>i</sub> è tutto il suo<sub>i</sub> ritratto
   Gianni is all the his portrait
   Possible interpretation: 'Gianni perfectly reflects his portrait"

Furthermore, binding of the possessive is possible irrespectively of the semantic relation it has with the noun it modifies:

- Un giocatore<sub>i</sub> di pallacanestro è la sua<sub>i</sub> altezza
   A player of basketball is the his/her height
   Possible interpretation: 'The value of a basketball player resides in his/her height'
- (23) Un allenatore, è la sua, squadra
   A coach is the his/her team
   Possible interpretation: 'The values of a coach depends on his/her team'
- (24) [Quel tavolo]<sub>i</sub> è le sue<sub>i</sub> gambe
  That table is the its legs
  Possible interpretation: 'The value/beauty of that table resides in its legs'
- (25) Gianni<sub>i</sub> è ormai la sua<sub>i</sub> brutta copia
   Gianni is at this point the his ugly copy
   Possible interpretation: 'The Gianni of today poorly resembles the person he used to be'
- (26) Tiepolo<sub>i</sub> è i suoi<sub>i</sub> cieli
  Tiepolo is the his skies
  Possible interpretation: 'The beauty of Tiepolo's painting resides in the skies he painted'.

Let us take stock and see what these data suggest. First, the unacceptability of binding in (1) and the contrast in (4) should not be taken at their face value. In fact, it's not only pragmatic factors (to which we will return later) that affect the (il)legitimacy of binding in these sentences, but it is the availability – even out of context – of a specific interpretation, in which one of the two DPs is neither predicated of the other nor equated with the other. What happens, instead, is that the precopular DP is asymmetrically identified as endowed with (all) the properties associated to the postcopular DP. We intend to show that this interpretation is pivotal not only to solving the binding issues in copulars, correctly deriving the demarcation line between the acceptable and the non-acceptable cases, but also to satisfactorily addressing one of the 'hard problems' of binominal copulars: Is it possible to combine the virtues of the predicational analysis, including the syntactic unification of the predicational and specificational types, while at the same time guaranteeing the argument status of both DPs? This would make Russell's analysis no more

correct than it was before, since an asymmetric relation of identification (what we propose) is clearly not the same as a symmetric relation of numerical identity (the Russellian analysis). However, it would rescue one of Russell's insights, that is, the fact that both DPs are arguments within an essentially relational structure, leading to important adjustments in the currently held theory of binominal copulars.

# 4 Syntax and semantics of asymmetric identification

In this section we lay out our proposal concerning the syntax and semantics of the copular sentences we have discussed in the preceding section.

On the syntactic side, we depart from Moro's (1997; 2010; 2017) analysis of copulars and follow instead the proposals by Bowers (1993), Svenonius (1994), and den Dikken (2006), which maintain that all types of binominal copular sentences share a common asymmetric underlying structure along the lines of (27), where the two DPs are connected by a 'relator' head H (we borrow the term 'relator' from den Dikken 2006).

(27) [ be [  $DP^1$  [ H  $DP^2$  ]]]

The surface linear order, in which  $DP^1$  or  $DP^2$  precedes 'be', is then obtained by raising one of these DPs to the Specifier of the copula<sup>3</sup>.

We will further assume that H is a functional category with a relational semantics, of semantic type  $\langle e \langle et \rangle \rangle$ . From these assumptions, it follows that the constituent [H DP<sup>2</sup>] is a predicate (type  $\langle et \rangle$ ). This explains the observed agreement patterns as well as the cliticization phenomena observed above. It also follows that DP<sup>2</sup> does not act itself as a predicate but retains its argumental properties. This explains the effects observed above, as the fact that DP<sup>2</sup> can be modified by a non-restrictive relative clause and can act as the antecedent of a pronoun, as well as the fact that DP<sup>2</sup> qualifies as a binding domain for the possessive pronoun. On these grounds, we derive the legitimacy of pronominal binding in all cases reviewed in the preceding section, since the antecedent finds itself outside the minimal binding domain for the pronoun.

On the semantic side, we propose that H is a phonetically silent predicate of *property-based Asymmetric Identification* (AI), whose semantics is defined as follows:

(AI) [[ H ]] :=  $\lambda y \lambda x (\forall P \forall s (Ascribe(s, P, y) \supset Ascribe(s, P, x)))$ 

According to (AI), H denotes a transitive relation between two arguments y and x that is true iff, for all properties P and cognitive agents s involved in the conversational exchange at stake, if P

<sup>&</sup>lt;sup>3</sup> In the context of the present discussion, we shall not delve into the reasons for DP raising in copular sentences; we shall simply assume, with Moro and den Dikken, that canonical copulars feature DP<sub>1</sub>-raising, whereas inverted copulars feature DP<sub>2</sub>-raising.

is relevant to *s* for identifying object *y*, then *P* is also relevant to *s* for identifying object *x*. For simplicity's sake, we will abbreviate the formula in (AI) as follows, where  $P^c$  is a shorthand for 'property that is contextually triggered for argument identification'.

(AI) [[ H ]] :=  $\lambda y \lambda x (\forall P(P^c y \supset P^c x))$ 

Informally, according to this semantics, a copular sentence with the underlying syntactic structure in (27) is true iff the properties that are relevant in a context c for identifying the referent of  $DP^2$  are as relevant for identifying the referent of  $DP^1$ . Accordingly, we will refer to  $DP^2$  as the *identifier* and to  $DP^1$  as the *identified*.

Applied to example (28a), the semantics delivers the truth conditions in (28b), whereby the sentence is true iff Anna is identified by all the properties that characteristically identify her mother. Similarly, sentence (29a) is true iff Anna is not identified by all the properties that characteristically identify her mother (some properties of the mother do not extend to the daughter).

- (28) a. Anna<sub>i</sub> è (tutta) sua<sub>i</sub> madre Anna is all her mother
  - b.  $\forall P(P^{c}(\iota x.x = m(a)) \supset P^{c}a)$
- (29) a. Anna<sub>i</sub> non è sua<sub>i</sub> madre Anna not is her mother
  - b.  $\neg \forall P(P^{c}(\iota x.x = m(a)) \supset P^{c}a)$

All in all, the syntax and semantics proposed account for the legitimacy of pronominal binding in the configurations under scrutiny, as well as for their peculiar interpretive properties.

What remains to be explained is the ungrammaticality of the cases presented at the onset, that is, the conditions under which binding may not be legitimate. The solution we shall present is that the infelicity detected in some cases of possessive binding is not due to the violation of Principle B but depends on the absence of a supportive context for the process of pragmatic strengthening which is required to turn asymmetric identification into strict numerical identity. More precisely, we have seen that a sentence such as "John is his father" allows possessive binding under asymmetric identification (say, John has all the personality traits of his father). As we have also seen, this becomes particularly evident for a negative sentence such as "John is not his father", where we are clearly not expressing the truism that John and his father are not the same person, but we are rather denying that John resembles his father with reference to a set of contextually relevant properties. In a nutshell, we propose that a sentence like "John is his father" (similarly to our original example "John is his cook") can also be interpreted as strict identity (John is the same person as his father, John is the same person as his cook) by means

of a process of pragmatic strengthening. As we will see in a moment, the result so produced is semantically awkward (it involves a kind of referential circularity) and must then be contextually supported. If this is not the case, referential circularity is avoided and possessive binding is dismissed as an infelicitous option.

Let us see now how this works in more detail. As already observed, all the grammatical examples we have considered so far are most naturally interpreted as asymmetric property-based identifications. In all cases, DP<sup>1</sup> and DP<sup>2</sup> are taken to refer to different, non-identical objects and the properties that characteristically identify the referent of DP<sup>2</sup> are asserted to also identify the referent DP<sup>1</sup>. In cases such as (28) and (29), for example, "Anna" and "her mother" are taken to refer to distinct objects and neither sentence asserts their identity. Rather, the sentences express asymmetric relations of property-based identification (or lack of identification), where Anna's mother acts as the identifier and Anna as the identified.

Notice, in fact, that even a sentence such as (7a), which, at first sight, appears not to license binding of "sua" by "Anna", becomes grammatical if interpreted in a context supporting an interpretation of asymmetric identification. Suppose, for example, that Anna is the daughter of a famous actress and that Anna herself is now demonstrating the same talent of her mother. We may then say:

(30) Sul palcoscenico, Anna<sub>i</sub> è sua<sub>i</sub> madre On-the stage, Anna is her mother

At this point, the crucial observation to be made is that the semantics of asymmetric identification (AI) elucidated above, being built around a conditional logical form, lends itself to being pragmatically strengthened into a strict, symmetric identity by the process known as *Conditional Perfection*. To exemplify, it has been observed that (31a) is ordinarily interpreted as supporting the inference that if John doesn't lean out of that window any farther, he won't fall. Similarly, (31b) appears to invite the inference that if you don't mow the lawn, I won't give you \$5.

- (31) a. If John leans out of that window any farther, he'll fall
  - b. If you mow the lawn, I'll give you \$5

Several proposals have been put forward to explain inferences such as those prompted by the examples in (31). Most scholars agree in treating them as the result of a pragmatic process whereby the asymmetric logical meaning of a conditional is strengthened into that of a symmetric biconditional. After Geis & Zwicky (1971), it has become customary to refer to this process as Conditional Perfection (CP). Proposals differ as to how this pragmatic process should be exactly characterized. Van der Auwera (1997a-b) treats it as a scalar implicature, whereas Horn (2000) advocates an analysis of CP as a relevance-based form of pragmatic strengthening. Von Fintel (2001), capitalizing on Groenendijk & Stokhof (1984), associates the strengthened interpretation

of conditionals to their use as exhaustive answers. In what follows, we will not argue in favour of any particular account of CP. We will simply assume that CP is a pragmatic process that, when the reading in terms of asymmetric identity is not particularly prominent, strengthens the logical form of a conditional into that of a biconditional. We should also observe, with Boër & Lycan (1973), that the presence of an overtly realised conditional is neither a necessary nor a sufficient condition for CP, as demonstrated by examples such as those in (32) (from Horn 2000). Sentence (32a) invites the (lifesaving) inference that no false move means no shooting; (32b) invites the inference that, if you don't scratch my back, I don't scratch yours.

- (32) a. One false move and I'll shoot
  - b. You scratch my back, I scratch yours.

With this in mind, consider a binominal copular sentence of the form "DP<sup>1</sup> is DP<sup>2</sup>". Assume further that DP<sup>1</sup> refers to object *a* and DP<sup>2</sup> refers to object *b*. According to the semantics of asymmetrical identification, the sentence has the truth-conditions in (33a). Application of CP to (33a) delivers (33b), where the (asymmetric) conditional is replaced by the (symmetric) biconditional. In turn, (33b) may be interpreted, under Leibniz's law of identity of indiscernibles – objects with equivalent properties are identical objects – as equivalent to (33c):.

(33) a.  $\forall P(P^cb \supset P^ca)$ 

b.  $\forall P(P^cb \leftrightarrow P^ca)$  [from (33a) by CP]

The inference provided in (33) is *pragmatic* in two respects. The step between (33a) and (33b) is pragmatic in that it is the result of CP, which, as we saw, is a pragmatic inference, whose legitimacy depends on a variety of contextual factors. The step between (33b) and (33c) is pragmatic in the sense that it depends on the choice of properties P<sup>c</sup>. As we saw, the properties quantified over by (AI) are the properties that are *contextually* relevant to the identification of the object they apply to; hence, different contexts and, with them, different choices of relevant properties may support the inference from identity of properties to identity of objects to different degrees. Ultimately, the inference in (33) provides a route from a predicative to an equative interpretation of copular sentences. This route is pragmatic in nature, hence, subject to world knowledge and all sorts of contextual factors, which may differently modulate the inference from properties of objects to identity of objects.

Notice now that, if we apply this strategy to a sentence of the form  $[DP_i^1 is [_{DP2}...poss_i...]]$  (where, that is, DP<sup>2</sup> contains a possessive pronoun bound by DP<sup>1</sup>), we obtain co-extensionality between DP<sup>1</sup> and DP<sup>2</sup> and, consequently, an *i-within-i* configuration whereby the possessive and the DP that contains it (i.e. DP<sup>2</sup>) are also co-extensional. In the GB-framework, the *i-within-i* condition was intended to exclude configurations such as  $[his_i cook]_i$ , where his is

co-referential with the containing phrase *his cook*. Another way to look at it is to regard  $[his_i cook]_i$  as a function that, for this particular configuration, takes some input and returns the same value as its output (i.e. a function that works, for these particular cases, as the identity function f(x) = x). More particularly, the function 'the cook of x' applies to x in order to provide, in normal circumstances, an output distinct from x. If this is not the case (the output of the function is not distinct from the argument to which the function applies), as is the case for  $[his_i cook]_i$ , there must be contextual conditions clearly favouring this 'identity function' interpretation. In other words, as discussed, among others, by Hoeksema & Napoli (1990), *i-within-i* configurations are not altogether excluded, but are likely to require a strongly supportive context.

We observe, in fact, that violations of the ban on identity functions in the binding configurations presently under scrutiny are only legitimate under severely constrained pragmatic conditions. To begin with, notice that, whereas (34a) sounds indeed ungrammatical in Italian, it substantially improves with the use of the adverb "praticamente" (practically). Similarly, the grammaticality of (35) depends on the use of pragmatic adverbs such as "biologicamente" (biologically).

(34)	a. *[Il sole] <sub>i</sub> è la sua <sub>i</sub> fonte di energia
	the sun is the its source of energy
	b. $[Il sole]_{I}$ è praticamente la sua <sub>i</sub> fonte di energia
	the sun is practically the its source of energy
(35)	Biologicamente, $[Gianni]_i$ è il suo <sub>i</sub> corpo, spiritualmente, la sua <sub>i</sub> anima
	Biologically Gianni is the his body spiritually the his soul
	finanziariamente, il suo <sub>i</sub> conto in banca
	financially, the his bank account

In both examples, the relevant interpretation is one of strict (symmetric) identity, modulo the use of adverbial modification, which relativizes identity to a restricted domain of interpretation, and, consequently, a contextually restricted set of relevant properties. For example, according to (35) Gianni is exhaustively identified by his physical properties relatively to a context where Gianni is considered from an exclusively biological perspective – whereas encyclopedic knowledge dictates that Gianni cannot be reduced to his physical properties alone.

Consider also the examples in (36–37). Both cases are based on the creation of a pragmatically supportive context: in (36) this boils down to unexpected identity between two individuals previously believed to be distinct; whereas in (37) this corresponds to the manipulation of the epistemic background linked to the encyclopedic knowledge about bosons proper to the cognitive agents involved.

- (36) Ero convinto che Gianni e il suo avvocato fossero due persone diverse. Ma sai cosa ho scoperto? Gianni, È il suo, avvocato!
  'I was convinced that Gianni and his lawyer were two different persons. You know what I discovered? Gianni IS his lawyer!'
- (37) I bosoni ricevono la loro energia da altri bosoni ma in alcuni rari casi anche da loro stessi. Guarda, [questo bosone]<sub>i</sub> è la sua<sub>i</sub> fonte di energia!
  'Bosons receive their energy from other bosons but in some rare cases also from themselves. Look, this boson is its source of energy!'

These examples indeed show that possessive binding is acceptable even when a copular sentence expressing asymmetric identification is pragmatically strengthened onto an interpretation of strict identity. Acceptability, however, requires a supportive context licensing the resulting *i-within-i* configuration. This strongly supports the hypothesis that the examples discussed at the onset of the present contribution, such as (1), where possessive binding is illegitimate, do not involve any violation of the syntactic principles governing binding. In fact, the postcopular DP (*his cook*) has argument status, providing thus the minimal binding domain within which the possessive must be free. Possessive binding is excluded because the referent of the possessive "his" is numerically identified, after CP has shifted asymmetrical identification into logical identity, with the referent of the DP "his cook", triggering the presence of an identity function that is only allowed in pragmatically supportive contexts.

Finally, there are some cases of illegitimate possessive binding, exemplified in (38) below, which might be considered as potential residues of the predicational type of binominal copulars (see Delfitto and Fiorin 2025 for an analysis along these lines).

- (38) a. \*Alessia, è la sua, sola fonte di sostentamento
   \*Alexia, is her, only source of livelihood
  - b. \*Alessia, è la causa della sua, rovina
     \*Alexia, is the cause of her, downfall

One might be tempted to propose that binding is illegitimate in (38) because in (38) the postcopular DP is interpreted as predicate, instead than as an argument. However, the pragmatic enrichment that we have proposed above for the cases of asymmetric identity suggests a different approach to (38). We propose that the copular structures in (38) involve a silent predicate of asymmetric identification, as is the case for all other binominal copular structures. The implausibility of the asymmetric interpretation – given the lexical choices made in these sentences – simply triggers the variant of pragmatic strengthening associated with CP, resulting in a strict identity interpretation: the referent of "la sua sola fonte di sostentamento" (38a) and the referent of "la causa della sua rovina" (38b) is thus numerically identified with the referent of the name "Alessia". This triggers the presence of an *i-within-i* configuration (an identity function in semantic terms), immediately

deriving the awkwardness of possessive binding. More precisely, not coindexing "her" with the whole postcopular DP – thus avoiding the presence of an identity function – is by far the best solution, at least when these sentences are not interpreted in contexts that specifically support coindexing.

A residual puzzle concerning possessive binding is formulated in Moro (2017), and essentially concerns the asymmetry detected in the following paradigm (from Moro 2017):

- (39) a. Le sue<sub>i</sub> lettere sono l'alibi di Gianni<sub>i</sub> The his letters are the-alibi of Gianni 'His letters are Gianni's alibi' (canonical copular)
  - b. L'alibi di Gianni<sub>i</sub> sono le sue<sub>i</sub> lettere The-alibi of Gianni are the his letters 'Gianni's alibi are his letters' (inverted copular)
  - c. Le lettere di Gianni, sono il suo, alibi
     The letters of Gianni are the his alibi
     'Gianni's letters are his alibi'
     (canonical copular)
  - d. \*Il suo<sub>i</sub> alibi sono le lettere di Gianni<sub>i</sub> The his alibi are the letters of Gianni His alibi is Gianni's letters (inverted copular)

In a nutshell, the puzzle is why only (39d) is ruled out and, more particularly, why backward pronominalization, as seen in (39a) and (39d), is unacceptable only in (39d) (the inversion structure), while legitimate in (39a) (the canonical structure). This challenging issue would deserve a more detailed discussion, which is not possible here. However, we want to suggest the following general line of analysis. If inversion structures (following Moro 2010 and contrary to den Dikken 2006<sup>4</sup>) are essentially focus-driven, this entails that in (39d) the postverbal DP (*le lettere di Gianni*) may be interpreted as a *narrow focus*. The possessive antecedent in (39d) (*Gianni*) is thus part of this narrow focus. Now, it is well-known that focused antecedents give rise to binding violations with the flavor of weak crossover effects, as shown by the observation that (39f) is worse than (39e) (we indicate focus by using capital letters):

<sup>&</sup>lt;sup>4</sup> Though den Dikken's analysis of the cases of inversion is based on the hypothesis that the displaced predicate DP is a reduced free relative (see section 5 below), to the effect that copular inversion is not focus-related movement, it should be emphasized that den Dikken explicitly states that the outcome of copular inversion is an information structure with narrow focus on the postcopular DP, and in that respect, we are in perfect agreement with den Dikken.

e. ?Sua<sub>i</sub> madre ama Gianni<sub>i</sub>
 f. ?\*Sua<sub>i</sub> madre ama GIANNI<sub>i</sub> (non Andrea)

In fact, overt subextraction of the possessive antecedent from the focus site seems to trigger a stronger degree of deviance than when extraction takes place from a non-focused constituent, as seen in the contrast in (39g-h):<sup>5</sup>

(39) g. ?Di quale ragazzo, pensi che le sue, lettere siano l'alibi t,?

h. \*Di quale ragazzo, pensi che il suo, alibi siano LE LETTERE t,?

# 5 Asymmetry in copular sentences: A comparison with previous frameworks

As mentioned above, Moro has argued in his work in favor of the conclusion that "the nineteenth-century semantic view according to which the copula is ambiguous between identity and predication cannot be maintained in syntax" (Moro 2017:7). Based on the observations made above, we claim that such a view cannot be maintained in semantics either. If we are correct, binominal copular sentences are asymmetric structures expressing asymmetric identification – a relation fundamentally different from the relation of symmetric numerical identity – whereby one object is identified on the basis of the properties of another object. Symmetric numerical identity can be either realized explicitly by means of lexical items specifically conveying such

(i) Sua madre legge le lettere di GIANNI
 'Her mother reads the letters of GIANNI'

and to indicate its acceptability status under coreference.

In effect, in Italian (i) is no less deviant than (ii) when the possessive is intended to corefer with 'Gianni', according to our judgment.

(ii) Sua madre adora GIANNI'Her mother adores GIANNI'

This is also confirmed by the parallelism between (iii) and (iv) when the object is overtly extracted under intended coreference with the possessive. Both (iii) and (iv) are WCO violations under this reading:

- (iii) \*?A chi pensi che sua madre voglia bene?'Whom do you think that his mother loves?'
- (iv) \*?Di chi pensi che sua madre abbia letto le lettere?'Of whom do you think that his mother has read the letters?'

As the reviewer suggests, this parallelism further strengthen the proposed analysis.

<sup>&</sup>lt;sup>5</sup> An anonymous reviewer acknowledges that the suggestion that the ungrammaticality of (39d) should be analysed as a weak crossover effect is an interesting one. However, they raise the issue that "the illustration of the emergence of WCO in transitives with a focused object has generally remained confined to cases in which the entire focused direct object (not a subpart of it) is coreferent with the pronoun contained in the subject. Since there is no a priori guarantee that they will behave on a par, it would be good, for the sake of parallelism, to include an example of the type:

interpretation (see, however, Delfitto and Fiorin 2025 for some qualifications) or by strengthening the meaning of regular copular sentences by pragmatic means such as those described above. This latter option requires, however, specific licensing conditions.

The view of copular sentences that emerges here is entirely compatible with den Dikken's (2006) and Moro's (1997; 2017) strategy of reducing the four types of binominal copular sentences identified by Higgins (1973) to a single predicative type coming in two guises, canonical and inverse. All nominal copular sentences, that is, share a common underlying structure whereby one DP acts as the *identifier*, while the other DP acts as the *identified*. This common underlying structure may be spelled out either in canonical order (the DP acting as identified precedes the DP acting as identifier) or in inverse order (the identifier precedes the identified).

In this respect, however, an important consequence of the present approach is that inversion structures, though altogether possible, are in fact quite more limited in number than in Moro's approach (see Delfitto and Fiorin 2025 for further discussion of this point). To see this, consider that in Moro's approach, given the two copular sentences (40a) and (40b), (40a) qualifies as canonical and (40b) as inverted. This depends on the fact that *Gianni* is necessarily the argument, whilst *il miglior candidato* (the best candidate) is necessarily the predicate:

- (40) a. Gianni è il miglior candidato
   Gianni is the best candidate
   b. Il miglior candidato è Giann
  - b. Il miglior candidato è Gianni The best candidate is Gianni

Conversely, our approach dictates that both DPs have argument status (it is the combination of the silent predicate H with the postcopular DP that determines predication); as a consequence, (40b) may be both an inversion structure (with 'il miglior candidato' counting as the identifier) and a canonical structure (whereby 'il miglior candidato' is identified by means of the properties typically assigned to Gianni). Contextual/pragmatic considerations decide which interpretation is selected.

Furthermore, the data below suggest that rightward agreement becomes impossible when a binominal copular expresses symmetric identity:

- (40) c. La stella del mattino e la stella della sera sono/\*è il pianeta The star of-the morning and the star of-the evening are/\*is the planet Venere Venere
  - d. Il pianeta Venere è/\*sono la stella del mattino e la stella della The planet Venere is/\*are the star of-the morning and the star of-the sera evening

- e. Gianni è/\*sono il cuoco e il medico Gianni is/\*are the cook and the doctor
- f. Il cuoco e il medico sono/\*è Gianni The cook and the doctor are/\*is Gianni
- g. La foto sul muro e l'annuncio sul giornale sono/\*è The picture on-the wall and the-announcement on-the newspaper are/\*is la causa della rivolta the cause of-the riot
- h. La causa della rivolta sono/\*è la foto sul muro e l'annuncio the cause of-the riot are/\*is the picture on-the wall and the-announcement sul giornale on-the newspaper

In examples (40g) and (40h), the plural DP coordination "la foto sul muro e l'annuncio sul giornale" is naturally interpreted as the argument that plays the role of *identified* in the asymmetric relation of identification. Hence, it is the one that triggers number agreement on the copula, irrespectively of its pre- or post-copular position. Conversely, in examples (40c–f) only agreement with the pre-copular DP is admitted. We submit that these cases license an interpretation of symmetric identify. This interpretation neutralizes the distinction between identifier and identified and renders inversion meaningless (assuming, as discussed in fn. 2, that the trigger of inversion is essentially semantic). In these cases, therefore, the only possible order is the canonical one. Ultimately, these data appear to suggest (contra den Dikken 2006; but see the remarks in fn. 11) that binominal copulars with a symmetric, equative interpretation are always canonical and that inversion, intended here as raising of the identifier argument in the relation of asymmetric identification, is possible only when it provides a semantic contribution.

Our view differs from the familiar predicational approach in that it identifies the correct semantic format with property-based asymmetric predication, rather than with bare predication.

In effect, according to our proposal, the postcopular DP does not provide by itself the predicate. Rather it is the combination of the postcopular DP and functional head H that provides the predicate. In this respect, our proposal differs from that of Moro (1997; 2010) and rather aligns with the analyses of Bowers (1993), Svenonius (1994), and den Dikken (2006) in assuming that the relation of predication witnessed in binominal copular sentences is mediated by a silent head. There are, nonetheless, important differences between our proposal and the aforementioned analyses.

Bowers's (1993) analysis of H (Pr, for "predicate" in Bowers) is based on Chierchia's (1985) insight that properties are of an independent primitive semantic type ( $\pi$ ) – along with entities (e) and propositions (p). H is then analysed as a realization of the *predication function*, that is,

the function that maps a property of type  $\pi$  onto a propositional function of type  $\langle ep \rangle$ . This proposal has been criticized mainly for the fact that it predicts a sentence such as (41a) to be, if at all grammatical, equivalent to (41b). That is, given the semantics assumed by Bowers, H should be able to map the property denoted by the noun "wisdom" onto a corresponding propositional function.

- (41) a. #John is wisdom
  - b. John is wise

In the framework we have proposed, H does not denote the predication function, but the relation of property-based asymmetric identification (AI).

Den Dikken (2006) proposes an analysis of specificational and equative sentences as inverse copular sentences where the pre-copular DP is embedded in a reduced free relative, involving a *pro*-predicate head. According to this analysis, and simplifying in a number of respects, a specificational/equative sentence such as (42a) is given the structural analysis in (42b).

- (42) a. The author of *de Inventione*/Tully is Cicero
  - b.  $[_{Pred} \text{ pro-predicate } [_{DP} \text{ The author of } DI/\text{Tully}]]_i \text{ is } [_{RP} [_{DP} \text{ Cicero}] \text{ R } t_i]$

Two aspects of the analysis in (42b) are relevant to the present discussion: (a) the relation of predication between the two DP's involved is mediated by the empty abstract element R, what den Dikken calls a *relator*; (b) R does not contribute a predicative semantics; rather, it is the *pro*predicate head of the reduced free relative that embeds the pre-copular DP into a predicative structure. This structure allows den Dikken to account for the referential properties of the pre-copular DP in specificational and equative copular sentences.

Our proposal differs from den Dikken's in that our head H, as opposed to den Dikken's relator, is not an empty abstract element but a functional element (possibly a semi-lexical category, in the sense of Corver & van Riemsdijk 2001) expressing (similarly to other elements of this type) a second-order operator (in the case at stake, it turns arguments into sets of identifying properties). This dispenses us from the need to identify the predicative element of copulars with a reduced free relative.<sup>6</sup>

<sup>&</sup>lt;sup>6</sup> There is a further difference. In den Dikken's (2006) analysis the reduced free relative must necessarily raise to a pre-copular position. This is dictated by the need to license the silent pro-predicate head of the relative. In our view, predicate raising is rather due to focus-related reasons. This said, it should also be observed, as pointed out to us by den Dikken (p.c.) that the obligatoriness of predicate movement can be disentangled from the analysis of the predicative element of copulars in the terms of a reduced free relative. That is, the general framework of den Dikken's analysis of predication can be profitably maintained without necessarily maintaining the obligatoriness of predicate raising when the predicate comes in the form of a reduced free relative.

# **6 Further ramifications**

In this final section, we intend to briefly discuss the empirical scope of the proposed analysis of binominal copulars in terms of "asymmetric identification", facing some potential loose ends, elucidating some consequences and, perhaps more interestingly, indicating some promising directions for future research.

#### 6.1 On overt predicates of asymmetric identification

An anonymous reviewer raises the question of what the syntactic exponents of H (whose semantic type,  $\langle e \langle et \rangle \rangle$ , is the type of transitive verbs) might be, as well as the related issue, if no overt variant of H is found, why this should be the case. In fact, we believe that overt equivalents of H are not difficult to find, and that the semantics of the raising predicate " "sembrare" (En. seem) in Italian offers interesting evidence in favor of its interpretation as an overt variant of invisible H. First, consider that (43), contrary to (44), cannot be interpreted as an indirect perceptual report, on a par with "copy-raising" in English ("John seems like he's cooking", see Asudeh and Toivonen 2012); for example, in a situation in which we are at Gianni's place and see something bubbling away on the stove, with all sorts of ingredients on the counter:

- (43) Gianni sembra un cuoco 'Gianni seems a cook'
- (44) Gianni sembra essere un cuoco 'Gianni seems to be a cook'

Second, whereas (45) only has the meaning "Dr. Jackill looks like Mr. Hyde", (46) is most naturally interpreted as "Dr. Jackill might be Mr. Hyde":

- (45) Il dr. Jackill sembra Mr. Hyde'Dr. Jackill seems Mr. Hyde'
- (46) Il dr. Jackill sembra essere Mr. Hyde'Dr. Jackill seems to be Mr. Hyde'

Finally, whereas (47) and (48) have apparently the same meaning, a closer scrutiny reveals that (47) is interpreted asymmetrically (for instance, Gianni behaves like Andrea, without implying that Andrea behaves like Gianni), and (48) is interpreted symmetrically (if Gianni resembles Andrea, then Andrea resembles Gianni):

- (47) Gianni sembra Andrea 'Gianni seems Andrea'
- (48) Gianni assomiglia ad Andrea'Gianni resembles Andrea'

We propose that these facts, taken together, suggest that "sembrare" is akin to the predicate of asymmetric identification H, being generated in the same Relator-position while expressing asymmetric identification (x resembles y in the sense that x shares all the properties of y). The difference between the covert and overt variant of H is that the latter inhibits the process of pragmatic strengthening through conditional perfection, making the asymmetric 'looks-like' reading compulsory. We intend to further develop this analysis in future work, but we believe that the most promising line of analysis should express that (i) overt variants of H exist and (ii) overt variants, though both encoding asymmetric identity, differ in the way they relate to pragmatic enrichment, which is possible only with the covert variant.<sup>7</sup>

#### 6.2 On identity as pragmatic strengthening

A further issue concerns the strategy based on pragmatic strengthening defended above: if the infelicity of "John is his cook" depends on pragmatic strengthening having taken place in this case, shouldn't a hearer be able to retreat from it/not carry it out, if doing so rescues the sentence?<sup>8</sup> As clarified in the discussion above, if the asymmetric reading of "John is his cook" is not particularly prominent in the context of utterance, pragmatic strengthening automatically applies, delivering the strict identity reading according to which "John" is the same person as "his cook". Under this reading, possessive binding involves the interpretation of the function " $\lambda x$ . cook of x" in terms of an identity function (applying the function to x derives x as the output), triggering semantic awkwardness in non-supportive contexts. If possessive binding is ruled out, the interpretation is that John is the same person as the cook of someone else. This is perfectly fine semantically. And that is the reason why "John is his cook" does not allow possessive binding when this sentence is interpreted in terms of strict identity. Importantly, the same reasoning arguably applies when the identity predicate is lexically realized. In certain of those cases, what is really expressed is asymmetric identity. As discussed in Delfitto and Fiorin (2025), in Italian "Gianni è identico al suo cuoco" (Gianni is identical to his cook) is more likely to be interpreted as expressing that Gianni strongly resembles his cook rather than as Gianni being the same person as his cook. "His cook" is thus not coreferential to "Gianni", to the effect that no identity function is expressed, and possessive binding is legitimate. What about (perhaps) clearer cases of strict identity, as "John is the same person as his cook"? Here, possessive binding is clearly an option. We propose that this is the case because the lexical predicate inherently expresses strict identity (no pragmatic strengthening is involved) and this is sufficient to create the supportive context required to license the identity function. The same arguably holds for the use of "his own" in English: examples such as (36) and (37), as well as many other English paraphrases of

<sup>&</sup>lt;sup>7</sup> A conceptually related proposal, which would also deserve an in-depth analysis and which we intend to discuss in future work, is the one put forward in Percus and Sharvit (2024).

<sup>&</sup>lt;sup>8</sup> We are indebted to an anonymous reviewer for explicitly raising this issue.

the Italian sentences provided across the text, more naturally allow possessive binding, even in supportive contexts, when "his/her own" is used instead of "his/her".

#### 6.3 On postcopular indefinites

The unified analysis of binominal copulars proposed above raises a further question concerning the interpretation of the structures in which the postcopular DP is an indefinite, of the sort of (49):

(49) Socrates is a man

Notoriously, these are the cases that are generally seen as more problematic for Russell's equative analysis, and more prone to a predicational analysis. To address this issue, Delfitto and Fiorin (2025) discuss the contrast between (50) and (51) in Italian:

(50) Giovanni è avvocato John is lawyer

(51) Giovanni è un avvocato John is a lawyer

The literature suggests that whereas (50) simply consists in ascribing to John a single property, consisting in its capacity to perform professionally as a lawyer, (51) can be analyzed as more conveniently characterizing John as inherently endowed with the full set of properties normally associated with being a lawyer. Here is a quote of the conclusion drawn by Delfitto and Fiorin (2025), to which we fully subscribe here: "we would simply like to emphasize that an analysis of [(51)] along the lines proposed above, involving thus the presence of a silent predicate of asymmetric [identification], would immediately account for the seemingly *essentialist* reading of [(51)], by interpreting the sentence as the statement that John is to be identified by means of some of the properties typically associated to the members of the kind 'lawyer'. In fact, we might say that the interpretation of this sentence consists in the use of a kind (lawyers) to identify the individual John, essentially by claiming that John is an (almost) typical member of the kind. Conversely, what is involved in [(50)] is bare predication: a single property (being a lawyer) is ascribed to John, without mention of a kind or of the properties typically associated to the members of this kind. As is well-known, the 'essentialist' characterization of [(51)] is confirmed by the non-contradictoriness of [(52)]" (Delfitto & Fiorin 2025: 23–24).

(52) Giovanni è stato presidente per molti anni senza mai essere stato un presidente 'John has been president for many years without ever being a president'.

These are insights to be developed in future work. However, if they are essentially on the right track, they would entail that there are in fact residual cases where the postcopular DP is interpreted

as a predicate in copular structures. However, these are the cases where the postcopular DP is a bare noun, and not the cases where it is an indefinite DP. Even in this respect – we submit – Russell's analysis is somehow vindicated.

#### 6.4 On generalizing asymmetric identification

A reviewer, while accepting our hypothesis about the existence of asymmetric identificational structures to which equatives can be reduced (under conditional perfection), still suggests that garden-variety predicational copulars escape this analysis. This is suggested by the fact that in this last case modification is deviant, as demonstrated by the pair:

- (53) \*John is a nice guy, who I know very well
- (54) John is a nice guy, {which/\*who} Bill certainly isn't

However, remember in this respect that our analysis does not exclude a predicative interpretation. It simply differs from Moro's analysis by proposing that the predicative interpretation is associated to the complex H + DP, and crucially not to the postcopular DP in itself. As a matter of fact, all data seem to point in this direction. First notice that "John is a university professor, which Bill certainly isn't" should be analysed with "which" resuming the H-DP constituent, correctly deriving predication. On the other hand, "who" is not excluded when we intend to resume only the postcopular DP. Consider a context in which A asks: "Who is Ross?". To this B might certainly answer: "Ross is a university professor, whom I happen to know very well". Clearly, here the meaning is that I know Ross (as a university professor). So, both "which" and "who" are actually possible, depending on whether we want to resume the postcopular DP or the whole H + DP predicative constituent. We regard this as an empirical advantage of our analysis, which is not shared by the standard analysis.

Another potential obstacle for across-the-board relevance of 'asymmetric identification' concerns the distribution of the copula in subordinate contexts, since both Moro and den Dikken have emphasized the importance of the fact that copular inversion (in English) gives rise to an obligatory token of the copula in environments in which a copula would be entirely optional in the absence of inversion ('I consider the cause of the riot \*(to be) the picture of the wall'). Clearly, the compulsory presence of the copula in subordinate contexts, which is peculiar to English, is a phenomenon that would deserve a specific discussion, which is not possible here. However, there is in this respect an important observation to be made, which concerns the extension of the empirical domain of analysis proposed in the present paper. This is the observation that inversion is only allowed when the interpretation involves (in our terms) strict identify via pragmatic enrichment, whereas inversion is ruled out whenever the interpretation is in terms of asymmetric identification. This can easily be seen by considering the usual example (55),

under the interpretation according to which John does not share many features with his cook (asymmetric identity).

#### (55) John is not his cook

In this case, the canonical structure is fully acceptable ("I consider John not to be his cook"), whereas the inversion structure produces severe deviance ("\*I consider his cook not to be John"). It is in fact significantly more difficult to interpret the latter sentence as expressing that John does not resemble his cook. However, the same sentence becomes acceptable in a strict identity context in which, say, we are debating about whether John should be identified with the person that we have originally singled out as his cook. In general terms, this suggests that the DP acting as the identifier can be realized in subject position only when identifier and identified are equated, but not when one of the DP is identified by the other. Interestingly, the presence of the copula does not rescue inversion under asymmetric identification.

# 7 Conclusions

In this contribution, we have proposed a new empirical assessment of the facts around possessive binding in copular sentences, leading to the analysis of binominal copulars as structures of asymmetric identification. Interestingly, a fine-grained analysis of possessive binding depends on the interplay of grammatical and interpretive factors, including the pragmatically driven shift from asymmetric identification to strict symmetric identity. The present approach to copulars supports the familiar insight, in the theory of syntax, that the copula is not ambiguous between an equative and a predicational interpretation, as traditionally held in the philosophy of language. However, predication has been shown to depend on the combination of a silent predicate of asymmetric identification with the post-copular DP (as is the case in canonical transitive sentences) and not on the interpretation of one of the two DPs as a predicate. In this sense, an important ingredient of the original Russellian insights could be said to have survived the severe linguistic "sieve" which Russell's equative analysis had to undergo in the last decades: copular sentences concern asymmetric identification, and not just predication, and may even concern numerical identity, though not as a matter of logical form, as in Russell's analysis, but as a matter of pragmatic enrichment. The ideas developed in this contribution are thus ultimately intended to add to a general theory of identity in natural language.

## Acknowledgments

We are grateful to the audiences of IGG49 in Pavia and of the Laboratory "Bases Corpus Langage (BCL) of the CNRS/Université Côte d'Azur, where various parts of this research were presented. We are deeply indebted to Giuseppe Longobardi for sharing with us his insights on the syntax of copular sentences, and with Linda Badan, Marcel den Dikken, Chiara Melloni, Friederike Moltmann, Andrea Moro and Maria Venderfor discussing some of these materials with us and for providing insightful comments. We also thank three anonymous reviewers for providing useful feedback and insights. All errors are ours.

# **Competing interests**

The authors have no competing interests to declare.

# References

Asudeh, Ash & Toivonen, Ida. 2012. Copy raising and perception. *Natural Language and Linguistic Theory* 30(2). 321–380. DOI: https://doi.org/10.1007/s11049-012-9168-2

Boër, Steven E. & Lycan, Wlliam G. 1973. Invited inference and other unwelcome guests. *Papers in Linguistics* 6. 483–505. DOI: https://doi.org/10.1080/08351817309370351

Bowers, John. 1993. The syntax of predication. Linguistic Inquiry 24. 591-656.

Chierchia, Gennaro. 1985. Formal semantics and the grammar of predication. *Linguistic Inquiry*, 16. 417–43.

Coon, Jessica & Keine, Stefan. 2021. Feature Gluttony. *Linguistic Inquiry* 52. 1–82. DOI: https://doi.org/10.1162/ling\_a\_00386

Corver, Norbert & van Riemsdijk, Henk C. 2001. Semi-lexical categories: The content of function words and the function of content words. The Hague: Mouton de Gruyter. DOI: https://doi.org/10.1515/9783110874006

Delfitto, Denis & Fiorin, Gaetano 2025. Copular structures and asymmetric identity. *Studia Linguistica* 79. 180–214. DOI: https://doi.org/10.1111/stul.12249

Den Dikken, Marcel. 2006. Relators and linkers: The syntax of predication, predicate inversion and copulas. *Linguistic Inquiry Monographs* 47. Cambridge, MA: MIT Press. DOI: https://doi.org/10.7551/mitpress/5873.001.0001

Geis, Michael L. & Zwicky, Arnold M. 1971. On invited inferences. *Linguistic Inquiry* 2(4). 561–566.

Giorgi, Alessandra & Longobardi, Giuseppe. 1991. *The syntax of noun phrases: Configuration, parameters and empty categories*. (Cambridge Studies in Linguistics, 57.) Cambridge: Cambridge University Press.

Groenendijk, Jeroen & Stokhof, Martin. 1984. Studies on the semantics of questions and the pragmatics of answers, University of Amsterdam.

Hartmann, Jutta M. & Heycock, Caroline. 2019. (Morpho)syntactic variation in agreement: Specificational copular clauses across Germanic. *Frontiers in Psychology* 10(2994). DOI: https://doi.org/10.3389/fpsyg.2019.02994

Heycock, Caroline & Kroch, Anthony. 1999. Pseudocleft connectedness: Implications for the LF interface level. *Linguistic Inquiry* 30. 365–397. DOI: https://doi.org/10.1162/002438999554110

Higgins, Francis Roger. 1973. *The pseudo-cleft construction in English*. Doctoral dissertation, Massachusetts Institute of Technology.

Hoeksema, Jack & Napoli, Donna J. 1990. A condition on circular chains: A restatement of i-within-i. *Journal of Linguistics* 26(2). 403–424. DOI: https://doi.org/10.1017/S00222267000 14729

Horn, Laurence R. 2000. From if to iff: Conditional perfection as pragmatic strengthening. *Journal of Pragmatics* 32. 289–326. DOI: https://doi.org/10.1016/S0378-2166(99)00053-3

Hornstein, Norbert. 1984. *Logic as Grammar*. Cambridge, MA: MIT Press. DOI: https://doi. org/10.7551/mitpress/4287.001.0001

Longobardi, Giuseppe. 1983. Le frasi cupolari in italiano e la struttura della teoria sintattica. *Annali della Scuola Normale Superiore di Pisa. Classe di Lettere e Filosofia* III(13–4). 1151–1164.

Longobardi, Giuseppe. 1985. Su alcune proprietà della sintassi e della forma logica delle frasi copulari. In Savoia, Leonardo M. & Franchi De Bellis, Annalisa (eds.), *Sintassi e Morfologia della Lingua Italiana d'Uso. Teorie e Applicazioni Descrittive*, 213–223. Roma: Atti del XVII Convegno Internazionale SLI.

Moro, Andrea. 1997. *The raising of predicates: Predicative noun phrases and the theory of clause structure*. Cambridge: Cambridge University Press. DOI: https://doi.org/10.1017/CBO9780511519956

Moro, Andrea. 2010. Breve storia del verbo essere. Milano: Adelphi.

Moro, Andrea. 2017. Copular Sentences. In Everaert, Martin & van Riemsdijk, Henk C. (eds.), *The Wiley Blackwell Companion to Syntax*, Second Edition. DOI: https://doi.org/10.1002/978111 8358733.wbsyncom043

Percus, Orin & Sharvit, Yael. 2024. Copular asymmetries in belief reports. *Natural Language Semantics* 32. 403–430. DOI: https://doi.org/10.1007/s11050-024-09222-7

Richardson, John F. & Chametzky, Robert. 1985. A string based reformulation of c-command. *NELS* 15, 332–361. Amherst, MA: University of Massachusetts GLSA.

Ruwet, Nicolas. 1982. Grammaire des insultes et autres etudes. Paris: Éditions du Seuil.

Svenonius, Peter. 1994. Dependent nexus. PhD diss., University of California at Santa Cruz.

van der Auwera, Johan. 1997a. Conditional perfection. In Athanasiadou, Angeliki & Dirven, René (eds.), *On Conditionals Again*, 169–190. Amsterdam: John Benjamins. DOI: https://doi.org/10.1075/cilt.143.10auw

van der Auwera, Johan. 1997b. Pragmatics in the last quarter century: The case of conditional perfection. *Journal of Pragmatics* 27. 261–274. DOI: https://doi.org/10.1016/S0378-2166(96)00058-6

von Fintel, Kai. 2001. Conditional strengthening: A case study in implicature, ms, MIT.