

Antonia Rothmayr

What German expressive vocatives tell us about copular constructions

This paper argues that German expressive vocatives bear a predicational structure: they assert that a property holds of their subject. In the light of this insight, the traditional analysis of copular sentences must be revised: they presuppose the property that they ascribe to their subject.

Background Expressive vocatives are special vocatives: they do not bear the call-function, but only the addressee/confirmation-function. They always express the speaker's opinion of the addressee, which is often negative (Rauh (2004), d'Avis and Meibauer (2013), Gutzmann (2019)). The expressive vocative consists of an obligatory (usually second person) pronoun and a bare noun without any determiner.

- (1) a. Du Arsch! (*German*)
you arse
- b. Ich Depp! (*German*)
I idiot

Question Although many authors acknowledge that the noun is (underlyingly) indefinite (Potts and Roeper (2006), Espinal (2013b)) and expresses a property, so far the agreement pattern in (2) has not been accounted for. The pronoun, which is the equivalent of a *definite* determiner (Rauh (2004)), does not agree with the *indefinite* morphology on the adjective.

- (2) Du_{DEF} schöner_{INDEF} Kater!
you beautiful tomcat

No copular construction German expressive vocatives are not shortened copular constructions: non-inflected adjectives (4a), nouns with an indefinite determiner (4b), and negative indefinites (4c) are unacceptable in expressive vocatives (Potts and Roeper (2006)).

- (3) a. Du bist schön.
you are beautiful
- b. Du bist ein Kater.
you are a tomcat
- c. Du bist kein Kater.
you are not-a tomcat
- (4) a. * Du schön!
you beautiful
- b. * Du ein Kater!
you a tomcat
- c. * Du kein/nicht Kater!
you no tomcat

Agreement (4a) shows that an uninflected adjective is ungrammatical. In contrast, the adjective in (5) agrees with the pronoun's number and gender features. So the predicate must contain a nominal head. If there is no overt noun, an empty noun provides the necessary ϕ -features.

- (5) Du Schöner_{INDEF}!
you beautiful

Syntax German expressive vocatives consist of a full DP and a predication projection (PredP). The DP hosts the pronoun referring to the addressee, its D^0 is definite, and it is the subject of PredP. PredP contains a bare noun which must agree with the pronoun's number features (via Num⁰; Espinal (2013a)). The predicative noun doesn't project a full DP, contra Rauh (2004), Espinal (2013b).

A bare property The (empty) noun refers to a bare property, not to an (indefinite) object, and not to a kind (Rauh (2004), Espinal (2013a)). (2) expresses that the addressee is ascribed the property of a 'beautiful tomcat'. In contrast to the corresponding copular sentence, (2) does

not imply that there are any other (hypothetical) beautiful tomcats nor does it imply that the addressee belongs to a group or a kind of beautiful tomcats.

Presuppositions Copular sentences like (3b) trigger presuppositions (there exists a set of *tomcats*) and assert that the subject is part of this set. Presupposition tests (negation (3c), conditional (6a), and question (6b)) confirm this: the existence set of tomcats is always presupposed.

- (6) a. Wenn du ein Kater wärst, ... b. Bist du ein Kater?
if you a tomcat were, ... are you a tomcat

In expressive vocatives, the speaker asserts that the property holds of the subject. Since *unicorns* don't exist, (7a) does not make sense due to its presupposition failure; the corresponding vocative (7b) is fine.

- (7) a. Du bist ein Einhorn. b. Du Einhorn!
you are a unicorn you unicorn

The classical analysis holds for expressive vocatives, not for copular sentences: the assertion that the subject is a member of a set, i.e., that the predicate is true for the subject (8). Copular sentences presuppose the existence of this set, they presuppose that the property exists (9).

(8) Assertion: $you \in \{x : TOMCAT(x)\}$ (*expr. vocatives*)

(9) Presupposition: $\{x : TOMCAT(x)\}$ Assertion: $you \in \{x : TOMCAT(x)\}$ (*cop.sent.*)

Predicative adjectives as (3a) have classically been analysed analogous to copular sentences with indefinites. This analysis holds for expressive vocatives like (5): any property can be ascribed to the subject, even one that is created by the speaker in the moment of the utterance. In contrast, copular sentences with predicative adjectives presuppose that this property exists: it is a valid cognitive category (all speakers know the category of *beautiful* things).

References d'Avis, F. & J. Meibauer. 2013. Du Idiot! Din idiot! Pseudo-vocative constructions and insults in German (and Swedish). In Sonnenhauser & Noel Aziz Hanna (Eds.), *Vocative! Addressing between System and Performance*, 189–217. Berlin/Boston: De Gruyter Mouton. • Espinal, M. T. 2013a. Bare nominals, bare predicates. In Kabatek & Wall (Eds.), *New Perspectives on Bare Noun Phrases in Romance and Beyond*, 63–96. Amsterdam: John Benjamins. • Espinal, M. T. 2013b. On the structure of vocatives. In Sonnenhauser & Noel Aziz Hanna (Eds.), *Vocative! Addressing between System and Performance*, 109–132. Berlin/Boston: De Gruyter Mouton. • Gutzmann, D. 2019. *The Grammar of Expressivity*. Oxford: OUP. • Potts, C. & T. Roeper. 2006. The narrowing acquisition path. In Progovac et al. (Eds.), *The syntax of nonsententials: Multidisciplinary perspectives*, 183–202. Amsterdam: John Benjamins. • Rauh, G. 2004. Warum "Linguist" in "ich/du Linguist" kein Schimpfwort sein muß. Eine konversationstheoretische Erklärung. *Linguistische Berichte* 197, 77–105.

Sreekar Raghatham

Rutgers University

Lessons from the Wax Museum

Special Session: Identity

Proxy readings are underappreciated. I argue, based on data from proxy readings, that there are two fundamentally different ways to be reflexive: one, via verbal reflexive marking, and two, via reflexive anaphors; only the first strategy creates genuinely reflexive predicates. Using similar data, I also distinguish two types of *de se* construal in natural language. The data presented here also argue against proposals that deferred reference needs deixis (Nunberg 1993).

Two types of reflexivity: On entering a wax museum and perceiving Ringo Starr shaving his statue's beard, I can felicitously utter (1b), but not (1a) to report what I have seen. In (1b), the anaphor *himself* receives a proxy interpretation — refers not to Ringo Starr but his wax statue. A similar contrast obtains in Telugu (Dravidian). In (2a), the presence of the verbal reflexive *kun* blocks proxy readings: Akhil could only have praised his own self. In contrast, the anaphor in (2b) can receive a proxy interpretation.

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|---|--|
| (1) a. Ringo shaved | b. Ringo shaved himself |
| (2) a. Akhil (tana-ni tanu) poguḍu-kunn-aa-ḍu
Akhil (3SG-ACC 3SG) praise-VR-PST-3MS
'Akhil praised himself' | b. Akhil tana-ni tanu pogid-ææ-ḍu
Akhil 3SG-ACC 3SG praise-PST-3MS
'Akhil praised himself' |

Standard accounts of this contrast rely on the fact that there isn't an anaphor in the syntax in (1a). Assuming that intransitive grooming verbs are marked as reflexives in some way, the logical form of (1a) is (3a). On the other hand, the syntactic presence of an anaphor in (1b) allows its reference to be modulated by some function—here, *g*—that outputs a contextually relevant representation of the input—in this case, a statue (Jackendoff, 1992; Lidz, 2001; Reuland & Winter 2009). This function generates the proxy reading of the anaphor. On these accounts, the distinction between the two readings is a distinction in logical form: compare (3a) to (3b), the logical forms of (1a) and (1b), respectively.

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|----------------------------|---------------------------|
| (3) a. shave _{jj} | b. shave _{jg(j)} |
|----------------------------|---------------------------|

Such explanations are problematic for theories of reflexivity where the reflexive marking on the anaphor and the verb is simply a matter of different morphological realizations (Reinhart & Reuland 1993, Reinhart 1996, Ahn 2015, *a.o.*). For instance, on Reinhart & Reuland's account, the *self* marking on the anaphor reflexively marks the predicate. On the other hand, the intransitive *shave* is reflexively marked in the lexicon, and hence is inherently reflexive. On these theories, since both (1a) and (1b) are reflexively marked and reflexive, their logical forms should be identical too. But identical logical forms cannot explain the cross-linguistically robust generalization that verbal reflexives block proxy readings (Reuland 2018). I conclude, therefore, that the reflexivity encoded by verbal marking and by nominal anaphors are fundamentally different (see also Paparounas in prep).

Moving on to the standard accounts mentioned above, they rely crucially on the non-existence of an anaphor in (1a). These accounts face a problem when confronted with reflexively marked verbs that are also transitive: they do not have a way of preventing the anaphor from triggering a proxy reading. In Telugu, the absence of the anaphor in (2a) is only optional. The Kannada facts are similar too. In his discussion of the Kannada reflexivity, Lidz (2001) makes a lexical distinction between simplex and complex anaphors: the simplex anaphor in (4a) does not allow proxy readings, by fiat. The reference-modulating function on the complex anaphor in (4b) is lexically specified. This lexical distinction accounts for the lack of proxy readings in (4a).

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| (4) a. Hari tana-annu nooḍ-i-koṇḍ-a
Hari self-ACC see-PP-REFL.PST-3SM
'Hari saw himself (= Hari; *Statue)' | (5) Hari tana-annu-taane nooḍ-i-koṇḍ-a
Hari self-ACC-SELF see-PP-REFL.PST-3SM
'Hari saw himself (= Hari; *Statue)' |
| b. Hari tana-annu-taane nooḍ-i-a
Hari self-ACC-SELF see-PST-3SM
'Hari saw himself (= Hari or Statue)' | (6) Hari tanu Ringo bagileege iddane anta heḷida
Hari tanu Ringo next.to be.3MS COMP said
'Hari said that he _P was next to Ringo' |

Note however, that the simplex reflexive in (4a) can be replaced by the complex reflexive (5). Unless one wishes to subscribe to a lexical ambiguity thesis for complex reflexives, the earlier line of reasoning fails. Furthermore, the simplex anaphor does allow proxy readings in other contexts where it is found (6). It is only in the presence of the verbal reflexive that the proxy reading is blocked. Again, unless one wishes to subscribe to a lexical ambiguity thesis for simplex anaphors, Lidz reasoning does not account for the Kannada facts.

Analysis: I suggest that a simple change in perspective suffices to explain the felicity of co-occurring nominal anaphors and verbal reflexives. Translating the logical forms in (3) into a Neo-Davidsonian setting (7) allows us to make use of independently necessary constraints. Specifically, I suggest that the Thematic Uniqueness constraint on events (Carlson 1984) blocks the proxy readings of anaphors when they co-occur with verbal reflexives. Consider the logical form of (2a), when the anaphor is present, in (8). Here, two syntactic arguments receive a theme thematic role: Thematic Uniqueness (9) is only satisfied when both arguments are interpreted identically, i.e., when g functions as an identity function (in this context).

(7) a. $\exists e : \text{praise } e \wedge \text{agent } a \wedge \text{theme } a$ b. $\exists e : \text{praise } e \wedge \text{agent } a \wedge \text{theme } g(a)$

(8) $\exists e : \text{praise } e \wedge \text{agent } a \wedge \text{theme } a \wedge \text{theme } g(a)$

(9) *Unique Role Requirement* (Landman 2000, p. 38)

If a thematic role is specified for an event, it is uniquely specified

The analysis above also lets us preserve the intuition that proxy readings are in general possible for any nominal we can think of, provided the right context (Jackendoff 1992, Safir 2004)—it is not the possibility, but rather the impossibility of proxy readings that needs explanation.

Two types of De Se construal: Proxy readings show us that there are two types of reflexivity in natural language, and that this distinction is grammatical. Now consider *de se* readings, which are also reflexive, but in a different sense. In (10), we see that PRO can only receive a *de se* interpretation, unlike a pronoun, which allows *John* and *he* to co-refer to the same entity without John being aware that his expectations concern himself.

(10) a. John expected that he would win the award (11) I am next to Chaplin in the red room
 b. John expected PRO to win the award

Note however, that both examples in (10) do allow proxy readings. That is, even if John's expectations concern his statue's placement in an competition, both sentences in (10) can still be uttered felicitously, and the same contrast obtains: (10b) is only felicitous when John knows his expectations concern his own statue. More generally, PRO, even though it needs to be interpreted *de se*, can still receive a proxy interpretation. But *de se* interpretation does not preclude proxy readings, for Ringo can felicitously direct me to his statue by uttering (11). Similarly, shifted indexicals in Magahi, which are necessarily interpreted *de se*, also allow proxy readings (examples suppressed). In contrast to the examples in (10), the Telugu indexiphor in (12), needs to be necessarily interpreted *de se* (Messick 2022), and it does not allow proxy readings. While I have no explanation for the fact as of now, the difference between PRO and the indexiphor shows that natural language differentiates between different sorts of *de se* readings (cf. Higginbotham 2009, Ch.12, Pietroski & Hornstein 2010)

(12) adwait [tanu baag-un-n-aa-nu ani] anukunn-aa-ḍu
 adwait 3SG good-BE-PST-1SG COMP think-PST-3MS
 'Adwait₁ thought he_{1/*p} looked good'

Conclusion: Proxy readings show us that the reflexivity encoded by verbal reflexives and by nominal reflexive anaphors are fundamentally different. I suggested that proxy readings of anaphors are blocked when they co-occur with verbal reflexives by Thematic Uniqueness. Finally, some necessarily *de se* anaphors disallow proxy readings, while others allow them, suggesting a distinction between different types of *de se* interpretation.

Selected references: Reinhart 1996: Dravidian Anaphora and implications for emphatic anaphors • Higginbotham 2009: Tense, Aspect and Indexicality • Hornstein & Pietroski 2010: Obligatory Control and Local Reflexives: Copies as Vehicles for *De Se* Readings

Julie Goncharov

University of Göttingen

Beyond the classic *de re* belief ascription problem

There is a consensus in semantic literature that anaphorically used definite descriptions, definite descriptions with relative clauses, and definite descriptions with the deictic *same* involve a DP internal identity statement, see (1) and (2), (e.g., Sauerland 2003; Elbourne 2005; Schwarz 2009, 2013; Hanink 2021).

- (1) $\llbracket \text{the man}_i \rrbracket^{M,c,a} = \iota x.\text{man}(x) \wedge x = a(i)$
defined only if in c : $\exists!x[\text{man}(x) \wedge x = a(i)]$
- (2) $\llbracket \text{the man we saw yesterday} \rrbracket^{M,c,a} = \iota x.\text{man}(x) \wedge x = \iota y.\text{we-saw-yesterday}(y)$
defined only if in c : (i) $\exists!x[\text{man}(x) \wedge x = \iota y.\text{we-saw-yesterday}(y)]$; (ii) $\exists!y[\text{we-saw-yesterday}(y)]$

It is also standardly assumed that definite descriptions are meaningful only if there exists a unique individual in the context of the utterance that fits the description. In this paper, we see that the inclusion of an identity statement in the description that has to be contextually satisfied opens the door for problems similar to the classic *de re* belief ascription problem, but without the belief ascription. Because in DP internal identity statements instead of believing the suitable propositional attitude is presupposing, this situation challenges the popular semantic accounts of *de re* beliefs (and by extension other *de re* phenomena) in terms of different scope of world-binding (assuming that presuppositions and their accommodation are not part of the logical form of a sentence).

Two stories. I discuss two stories using definite descriptions with relative clauses as a study case. The first story presents a situation in which one actual individual is represented in two different ways. The second story is a reverse situation in which two actual individuals have the same representation.

Story 1: The old story about Ralph. Recall that Ralph knows Orcutt under two representations: as a man on the beach, whom Ralph believes to be a pillar of the community, and as a man in a brown hat, whom Ralph suspects to be a spy (Quine 1956). Suppose that Ralph has a sister Phoebe who knows Orcutt and also knows about Ralph’s epistemic situation regarding Orcutt, but she has never troubled herself to correct Ralph. Yesterday, Ralph and Phoebe went to a bar, where they saw a man whom Ralph would identify as that suspicious man in the brown hat and Phoebe would identify as Orcutt. Today, Ralph and Phoebe go for a walk and see Sophie, their mutual acquaintance, talking with a white-haired man whom Ralph would identify as that man from the beach and Phoebe (again) as Orcutt. At this moment, Phoebe says to Ralph:

- (3) *Look! Sophie is talking to the man we saw yesterday.*

There are two clear intuitions about (3): (i) the utterance is about the individual in the actual world and it expresses a true statement; (ii) upon hearing (and accepting) (3), in addition to facts about Sophie, Ralph learns new information about (his representation of) the world, namely that the man in the brown hat is the same individual as the man from the beach. These two intuitions, however, put conflicting demands on the identification of the individual Sophie is talking with. The first intuition requires that we talk about the actual world individual, that is, about Orcutt, whereas the second intuition requires that we talk about individuals as represented by Ralph. The difficulty here is that we cannot capture the two intuitions without switching between individuals in the actual world and their representations.

Story 2: Harvey and his Treasure Island. The story about Harvey and his Treasure Island is less famous in the *de re* literature (but see Stalnaker 2008). My version of Harvey’s story goes as follows: Harvey and Everly are brother and sister. Since their childhood, Harvey and Everly have been spending a getaway weekend on a distant island twice a year - once in spring and once in fall. When Harvey was little, he coined the name ‘Treasure Island’ for the island of their getaways. Unbeknown to Harvey, they have been spending their spring getaways on Island One and their fall getaways on Island Two. The two islands are the same with respect to their landscape features and can only be distinguished by their shorelines when the tide is low. When Everly was a teenager, their father showed her the difference between the two islands. Everly knows about Harvey’s epistemic situation and his ‘Treasure Island’, but she has never troubled herself to correct him. One cold November morning, Harvey and Everly pass by Sophie’s office and see on her desk travel documents and a brochure with a picture of the island that Harvey would identify as his ‘Treasure Island’, recognizable by

its unique landscape features. The picture also captures the island’s shoreline during the low tide, so Everly could identify it as Island One (the one they visit in spring). At this moment, Harvey says to Everly:

(4) *Look! Sophie is going to the island we’ve just come from.*

As in the previous story, there are two clear intuitions about (4), but the intuitions are slightly different: (i) (4) is about Sophie going to some actual island, although the sentence is factually false (Sophie is going to Island One, whereas Harvey and Everly have just come from Island Two); (ii) although Everly knows that (4) is factually false, being also aware of Harvey’s epistemic situation (that he does not distinguish between the islands), she can accept (4) as true for the purpose of the conversation and continue with it. The difficulty in the Treasure Island story is the same as in the story about Ralph: we cannot capture the two intuitions without switching between individuals in the actual world and their representations.

Pragmatic solution The classic *de re* belief ascription problem is a situation where the speaker refers to an individual, but the way the speaker refers to that individual is not the same as the way the believer is said to think about that same individual. In *Ralph believes Orcutt to be a spy*, the speaker refers to Orcutt, but Ralph thinks of Orcutt as the man in the brown hat. In some sense, Ralph and the speaker have different resources to express the same proposition that a particular individual is a spy. Similarly, we can describe our two stories in terms of different resources that the participants have available to express the same proposition. This allows us to adopt a pragmatic solution (Stalnaker 1988, 2009). According to the pragmatic solution, the difficulty that we have in case of *de re* belief ascriptions can be resolved by making a distinction between a *basic* context (a set of possibilities commonly believed by the participants of the conversation) in which ‘*x* believes that *p*’ is evaluated and a *derived* context (roughly, *x*’s belief-worlds), in which ‘that *p*’ is evaluated. The pragmatic role of each proposition is to select a subset of a set of the possibilities provided by a context.

Solution for Story 1. Suppose that before the sentence in (3) is uttered, the context consists of four worlds, as in Figure 1, where α can be thought of as the actual world, α and β as worlds compatible only with Phoebe’s beliefs and γ and δ as worlds compatible only with Ralph’s beliefs. It is commonly known by Ralph and Phoebe that yesterday they saw Orcutt. Of course, Ralph does not have to think of the individual they saw yesterday as Orcutt. It is sufficient that Ralph and Sophie recognize that they both saw a unique actual individual yesterday. For simplicity, we say that this unique individual is Orcutt. What is not commonly known is the identity statement, which Phoebe endorses and Ralph does not, and whether Sophie is talking to Orcutt. Assuming that Orcutt (or the unique most salient individual Ralph and Phoebe saw yesterday) refers rigidly, the identity statement is necessary true or false. What we say Ralph and Phoebe believe in this case is not a necessary falsity or truth, but a contingent proposition derived by diagonalization (Stalnaker 1978).

When the sentence in (3) is uttered, the context changes: worlds γ and δ are excluded as not supporting the presupposition of the definite description. This change is what we detect as the second intuition about (3) that upon hearing the sentence Ralph learns some new information about the world in addition to the facts about Sophie. The role of the assertion, then, is to exclude β and we are left with the proposition that is about an actual individual and true in the actual world, which is our first intuition about (3).

α	β	γ	δ		α	β	γ	δ	Abbrev.: <i>S</i> (‘was Seen by Ralph and Phoebe’), <i>T</i> (‘is Talking with Sophie’), <i>o</i> = Orcutt, <i>C</i> (‘Harvey and Everly’ve just Come from’), <i>G</i> (‘Sophie is Going to’), i_1 = Island One, i_2 = Island Two.
<i>So</i>	<i>So</i>	<i>So</i>	<i>So</i>		<i>C<i>o</i>i₂</i>	<i>C<i>o</i>i₂</i>	<i>C<i>o</i>i₂</i>	<i>C<i>o</i>i₂</i>	
$o = o$	$o = o$	$o \neq o$	$o \neq o$		$i_1 \neq i_2$	$i_1 \neq i_2$	$i_1 = i_2$	$i_1 = i_2$	
<i>To</i>	$\neg To$	<i>To</i>	$\neg To$		<i>G<i>i</i>₁</i>	$\neg Gi1$	<i>G<i>i</i>₁</i>	$\neg Gi1$	
Figure 1					Figure 2				

Solution for Story 2. The solution is similar to the one above: Figure 2 shows the context set before the utterance in (4) from the point of view of Everly. Here, upon hearing (4), Everly pretends that Island One and Island Two are one and the same island; this reduces the context set to γ and δ . The role of the assertion, then, is to exclude δ . Thus, we arrive at a proposition about an actual individual which is false in the actual world.

The moral. The presence of an identity statement in definite descriptions opens the door for problems familiar from *de re* belief ascriptions, but the prevalent analyses of *de re* belief ascriptions are ruled out, because the propositional attitude is not semantically present. Only the pragmatic solution is available.

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