

# **Non-Obligatory Control with Communication Verbs: New Evidence and Implications**

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## **Abstract**

When occurring without their goal argument, communication verbs induce two types of control: Obligatory Control (OC) by the implicit goal, or Non-Obligatory Control (NOC) by a salient antecedent. Arguments are presented to demonstrate that the two are genuinely distinct, and furthermore, that the NOC option is not reducible to embedded imperatives. The two types of control implicate the same grammatical representations, the single difference being the choice of the context of evaluation for PRO (fixed as the reported context in OC, free in NOC). Finally, we present evidence (from VP-ellipsis) that reference to deictic antecedents in NOC is not direct but mediated via grammatically present entities (SPEAKER and ADDRESSEE functions).

## **1 Control under communication verbs: The puzzle**

The proper grammatical classification of constructions like (1) has been a matter of some debate in the literature on control.

(1) Dad said [PRO to be quiet].

Is this a case of Obligatory Control (OC) or Non-Obligatory Control (NOC)? While Bresnan (1982), Bouchard (1984), Huang (1989), Sag and Pollard (1991) and Dalrymple (2001) have argued that the absence of an overt matrix controller for PRO in these cases classifies them as NOC, others have pointed out that the controller is always understood as the implicit matrix goal argument, hence these cases still fall under the purview of OC (Manzini 1983, Koster 1984, Vanden Wyngaerd 1994, Jackendoff and Culicover 2003, Landau 2000, 2013). Part of the debate is terminological (what properties count as criterial for OC or NOC?) but there is a substantive issue as well: Are the syntactic and semantic mechanisms underlying the control relation in (1) the ones that operate in noncontroversial cases of OC or the ones that operate in noncontroversial cases of NOC?

In this article, I argue that both camps were right, in a sense. Communication verbs are systematically ambiguous between an OC variant and a NOC variant. The co-existence of the two variants is probably the reason why the debate was never settled. It is also a challenge to most theories of control, based as they are on a complementary distribution between OC and

NOC. While I do not aim to resolve all the theoretical issues here, my goal is to establish the force of the challenge by looking into hitherto unexamined data.<sup>1</sup>

Let us reflect on the possible meanings of (1). One salient reading can be paraphrased as: For some contextually known *x*, dad said to *x* that *x* should be quiet. This is the implicit control reading. However, there is another reading, which can be brought out in the following scenario.

- (2) Dad is reading in the living room. Jen, his older daughter, is there too, working on the computer. The little boys are in their room, making a hell lot of noise. Dad tells Jen to go tell the kids to be quiet. Jen walks over to the boys' room, enters it and utters:  
**"Dad said to be quiet".**

Notice that the intended, perfectly natural reading of (2), cannot be rendered via an implicit controller. The addressee of dad's speech act was Jen, but in the given scenario, (2) does not mean what (3) does.

- (3) Dad said to Jen [PRO to be quiet].

The only reading (3) affords is that dad said to Jen that *she* should be quiet; whereas (2) conveys the proposition that dad said to Jen that *the boys* should be quiet.<sup>2</sup> This basic observation already indicates that the OC analysis, even when supplemented with the option of implicit control, falls short of providing a full account of (1). The point can be further illustrated with the variant of (2) given in (4): Since PRO bears the features [2PL], and the implicit goal (=Jen) is [3SG], this cannot be a case of OC.

- (4) Dad said [PRO to behave yourselves].

Before proceeding, it is worth pointing out that the peculiar control construction identified in (2)/(4) is not special to English and appears to be available in many languages in which communication verbs take control complements. Furthermore, in languages with more extensive object drop, the phenomenon is even more widespread, found with verbs like *instruct*, *ask*, *demand*, *request*, *order*, etc. An illustrative sample is given below; all the

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<sup>1</sup> The examples below are constructed with the verb *say*, however the conclusions extend to all communication verbs with directive force insofar as they allow dative object drop. Parallel observations hold for *recommend* and *suggest* in English and for other verbs outside English; see (5).

<sup>2</sup> Apparently English speakers differ in their tolerance to sentences like (3), the issue being whether control *say* may take a PP complement or not; some speakers reject such sentences, others find them odd, and yet others fully accept them. Competition with *tell* is possibly at play (*Dad told Jen to be quiet*), although it is not when the verbs take finite complements. Note that control *tell*, unlike *say*, cannot appear without a PP complement (*\*Dad told to be quiet*). Here and below, judgments for PP-taking control *say* are restricted to speakers who allow the construction in their grammar; see also (25b)/(26)/(27)/(32).

sentences involve control verbs (i.e., the reference of the embedded subject is not free). They are set up against the context of (2) and display control by the addressee or the speaker of the utterance (the latter option obtaining when one of the boys speaks to the other, following Jen's utterance; I return to speaker-control in the next section).

(5) a. *Italian* (Carlo Cecchetto, p.c.)

Papà ha detto di vestirvi / vestirci.

dad has said PRT to.dress.2PL/1PL

'Dad said to get dressed.'

b. *Hebrew*

aba bikeš le'haxin et acmexem/acmenu la-tiyul.

dad asked to.prepare ACC yourselves/ourselves to.the-trip

'Dad asked that you/we make yourselves/ourselves ready for the trip.'

c. *Turkish* (Ümit Atlamaz, p.c.)

Baba-m giy-in-me-niz-i söyle-di / iste-di.

father-POSS.1.SG wear-RFLX-NMLZ-2.PL-ACC say-PST / want-PST

Father said/asked that you guys get dressed.'

d. *Turkish*

Baba-m giy-in-me-miz-i söyle-miş / iste-miş.

father-POSS.1.SG wear-RFLX-NMLZ-1.PL-ACC say-PST.HEARSAY/want-PST.HEARSAY

'Father said/asked that we get dressed.'

To facilitate discussion, I will refer to control by the speaker/addressee of the utterance *Speech Act Control* (SAC). Alongside OC by the matrix goal (which may be overt or implicit), then, communication verbs allow SAC as well.

## 2 Against embedded imperatives

An obvious alternative is to suggest that communication verbs can optionally embed imperatives, as they do in a number of languages (Kaufmann 2014, Medeiros 2015). In fact, English itself presumably allows this option in finite complements, provided the complementizer *that* is dropped. Crnić and Trinh (2009) show, by a variety of tests, that the imperative complement in (6) is truly embedded and not quoted.

(6) John said [call Mary].

An embedded imperative analysis of SAC would immediately explain the orientation of the embedded null subject to the speech act addressee. Moreover, it would imply that the phenomenon seen in (2)/(5) has nothing to do with control.

However, several facts militate against assimilating SAC to embedded imperatives.

The first obvious problem is morphological. SAC complements display regular infinitival morphology (the marker *to*), imperatives do not. While this objection is not insurmountable (the imperative semantics can be associated with syntactic allomorphy), it would make this case rather exceptional: The embedded imperative analysis has been motivated, so far, on the basis of languages that clearly show embedded imperative *morphology*.

Moreover, from a crosslinguistic perspective, the phenomenon of SAC, with regular nonfinite morphology, is far more ubiquitous than the highly constrained and sporadic construction of embedded imperatives. To claim that SAC is an embedded imperative “in disguise” is to claim that neither the semantics nor the syntax of imperatives inhibits their embedding; it is only something about their morphology which resists embedding, and the nonfinite morphology somehow overcomes this obstacle. However, the morphology of imperatives is far more variable crosslinguistically than their syntax or semantics. The putative morphological constraint would have to be abstract enough to disregard all this variance and still be concrete enough to count as “morphological”. It is hard to imagine what such a constraint might be.<sup>3</sup>

A second problem with the embedded imperative analysis is distributional. The verb *say* is the single attitude verb that can embed imperatives in English, but SAC complements can be embedded by other communication verbs (insofar as they allow dative object drop).

(7) John speaking to Mary:

- a. I talked to the doctor. He recommended getting yourself a new medicine.
- b. I talked to the doctor. \* He recommended get yourself a new medicine.  
(cf. He said get yourself a new medicine).

(8) I talked to mom. She suggested \*(to) dress yourself up for the reception.  
(cf. She said dress yourself up for the reception).

Crnić and Trinh argue that *say* is singled out, because among the English verbs with the appropriate semantics, it is the only one that allows *that*-deletion, and embedded imperatives

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<sup>3</sup> Medeiros (2015) maintains that the embedability property depends on a rich imperative morphology, but Kaufman (2014) points out that German and English are counterexamples.

in this language (for some reason) require a null complementizer. If this were the case, then the contrast between the finite and nonfinite versions of (7) and (8) would teach us nothing about the capacity to embed an imperative; instead, it would be traceable to whether the complement is headed by an undeletable overt complementizer (yes for the finite version, no for the nonfinite one).

However, the argument does not go through because one of the premises is false. The verbs *recommend* and *suggest* do allow *that*-deletion, (9). The ungrammaticality of (7b) and (8), therefore, cannot be blamed on the C position and must be taken for what it is: embedded imperatives in English are only possible under *say*, a property not shared by SAC.

(9) He recommended/suggested we take a taxi.

Another fact that casts serious doubt on the analogy with embedded imperatives concerns the interpretation of the embedded subject. As illustrated in (5), SAC is not restricted to the addressee; speaker control is also possible. To see this, suppose that after Jen's visit to the boys' room, one of them turns to the other and utters (10).

(10) Let's calm down, dad said [PRO to behave ourselves].

Like (2)/(4), (10) is not analyzable as an instance of implicit control. The controller is *we*, *the boys*, but in the given scenario the boys are not the goal argument of *said* (rather, Jen is). Moreover, PRO in this case picks the speaker rather than the addressee of the speech act, hence the 1<sup>st</sup> person reflexive.<sup>4</sup> The following example also occurs in a context that rules out implicit goal control (Little Jane is not the addressee of mom's speech act).

(11) Dad talks to mom on the phone and proudly tells her that little Jane managed to tie her shoe laces all by herself today. Mom tells Dad: "Tell her to give herself a big hug". Dad does so, and later that day Jane tells her friend: "**Mom said to give myself a big hug**".

Embedded imperatives, at least to some speakers, are reported to allow 1<sup>st</sup> person null subjects (Crnić and Trinh 2009, Portner, Pak and Zanuttini 2014, Tyler 2013, 2015), so at first sight, do not seem to differ.

- (12) a. John said call his mom, and I did.  
b. John said be my own judge (and I am).  
c. John said help myself to the food in the fridge.

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<sup>4</sup> PRO in (10) happens to include the addressee, but this is incidental to the context and trivially allowed by the associative nature of (non-third) person features (Noyer 1992, Cysouw 2003, Bobaljik 2008, Wechsler 2010). If a single boy is involved rather than two, he may utter in this scenario: "Dad said to behave myself".

I should note, however, that even speakers who generally accept embedded imperatives have difficulty accepting them with 1<sup>st</sup> person reflexives, contrary to the judgment cited in (12c). No comparable difficulty is experienced with infinitives. This already suggests an underlying grammatical distinction (note that the NPI in (13) is used to rule out a quotation analysis).

(13) Mom didn't say <sup>??</sup>(to) buy anything for myself.

Furthermore, recent studies have identified an interpretive constraint on the subject of embedded imperatives in English that is not operative in control: It must pick either the addressee of the utterance context or the addressee of the reported context (Portner et al. 2014, Isac 2015, Tyler 2015).<sup>5</sup> Thus, the occurrence of a 1<sup>st</sup> person feature on the embedded subject of (12) is incidental: Direct reference to the utterance speaker is impossible, and only appears to be available when the utterance speaker happens to be an anterior addressee.

This derives a prediction. If the speaker is not the addressee of any prior the speech context, s/he will not be a possible referent of the subject of an embedded imperative. In contrast, SAC directly associates PRO with the utterance speaker and thus should not be similarly restricted. The facts bear out this prediction. Consider the following adjustment of the scenario in (11).

(14) Dad talks to mom on the phone and proudly tells her that little Jane managed to tie her shoe laces all by herself today. Mom tells Dad: “Tell her to give herself a big hug”. Dad unfortunately forgets to do so, but Jane happens to overhear their conversation (mom was on the speaker phone). Later that day she tells her friend:

**“Mom said \*(to) give myself a big hug”.**

It can be seen that in a situation where a current speaker who was not a previous addressee is referentially accessible to PRO, it is not accessible to the subject of an embedded imperative.

In sum, SAC under communication verbs manifests clear distributional and interpretive contrasts with embedded imperatives, in English and elsewhere. Assimilation of one to the other does not seem feasible.<sup>6</sup>

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<sup>5</sup> This seems to be a point of crosslinguistic variation. In Korean, the subject of an embedded imperative may only refer to the addressee of the reported context, i.e., the matrix goal (Pak, Portner and Zanuttini 2008; but see Seo and Hoe 2015 for challenging data), while in colloquial German, this is possible only if the addressee of the reported context coincides with the addressee of the utterance context (Kaufmann and Poschmann 2013).

<sup>6</sup> Having said that, the fact that OC complements to communication verbs and jussive clauses in the sense of Zanuttini, Pak and Portner (2012) bear some formal resemblance is probably not an accident. Both involve abstraction over the subject position, and both endow it with some indexical presupposition (restricting attention to what Landau (2015) calls “logophoric control”), giving rise to an obligatory *de te* construal. For a recent attempt to bring these two research strands together, see Grano 2015. See also fn. 17.

### 3 More properties of Non-Obligatory Control

To tell whether communication verbs allow the full range of interpretations attested in NOC, let us remind ourselves what that range is. Below is a representative set of examples, each demonstrating one subtype of NOC. We illustrate with sentential subjects in (15a-c) and an initial adjunct in (15d), although NOC is found in other environments as well (see Landau 2013:chapter 7 for an extensive survey).

- (15) a. *Arbitrary control*  
[PRO<sub>arb</sub> keeping oneself in shape] requires a lot of discipline.
- b. *Speech Act (Deictic) Control*  
[PRO getting myself into trouble] is the last thing that should worry you.
- c. *Long distance control*  
Fred<sub>i</sub> realized that people doubted whether [PRO<sub>i</sub> putting himself at the front] was best for the company.
- d. *Discourse control*  
Mary<sub>i</sub> was exhausted but content. [PRO<sub>i</sub> having dedicated herself to this project the whole summer], it was now over.

Let us consider these subtypes in relation to communication verbs. First, do they allow arbitrary control? The standard example cited in this context is (16) (Manzini 1983, Huang 1989).

- (16) Dad said to behave oneself.

However, this example could in principle give rise to two interpretations, only one of which counts as NOC.

- (17) a. OC by an implicit nonspecific goal  
*Dad said to X that X should behave themselves.*
- b. NOC  
*Dad said to X that Y should behave themselves.*

While (17a) is no doubt a possible interpretation for (16), the question is whether (17b) is too. I believe it is. Take our running scenario, with one difference: Dad doesn't know who is making the noise, so he tells Jen to go and silence whoever it is. She goes out and finds a crowd of noisy kids in the yard. Consider (18) in this context.

(18) Jen shouted that dad said to behave oneself.

The implicit goal of *said* is Jen, but PRO refers to the (nonspecific set of) the kids. So here we have a clear instance of (17b), with an uncontrolled PRO<sub>arb</sub> in the complement of *say*.

The counterparts of (15b) - speech act control - under communication verbs were demonstrated in section 1. The two remaining subtypes are long-distance and discourse control. Continuing with our running scenario, we can report the boys' reaction to Jen's message as follows.<sup>7</sup>

(19) The boys<sub>i</sub> couldn't believe that dad said [PRO<sub>i</sub> to behave themselves].

Once again, there is no issue of implicit control here (by Jen), hence it must be a true case of long-distance control. Similarly, discourse control (from a preceding sentence) is possible.

(20) The boys<sub>i</sub> looked at each other. Dad said [PRO<sub>i</sub> to behave themselves].

This was insane.

Thus, it seems that the case for NOC under communication verbs is much stronger than appreciated during the debate on the issue two decades ago. Not only arbitrary control, but also the other three subtypes of NOC – deictic, long-distance and discourse control – are possible in complements of communication verbs.

One more characteristic of NOC that can be tested with communication verbs is the restriction of PRO to human referents (Chomsky 1981, Williams 1992, Landau 2013). This can be seen in situations where there is no linguistic antecedent and PRO's reference must be picked from context. The intrinsic [+human] property accounts for the anomaly of (21b).<sup>8</sup>

(21) a. For the rice to be packaged and shipped on the same day would be unprecedented.

b. # [PRO to be packaged and shipped on the same day] would be unprecedented.

Observe now the parallel behavior of NOC complements of communication verbs.

(22) a. The shift supervisor ordered for the rice to be packaged and shipped on the same day.

b. The shift supervisor said (to the workers) that the rice should be packaged and shipped on the same day.

c. # The shift supervisor said [PRO to be packaged and shipped on the same day].

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<sup>7</sup> I am grateful to an anonymous reviewer for making me aware of this type of examples.

<sup>8</sup> Following Williams' (1992) insight, Landau (2015) derives the [+human] restriction from the logophoric nature of PRO in NOC; specifically, from the idea that PRO is identified with the AUTHOR or ADDRESSEE coordinate of some salient context.



Although the intended meaning is perfectly sensible, (22c) cannot be interpreted as (22a,b) and necessarily yields an anomalous reading (where humans are to be packaged and shipped). The parallel effect in (21b) and (22c), then, reinforces the treatment of the latter as NOC.<sup>9</sup>

Nevertheless, there are two respects in which NOC under communication verbs differs from standard NOC: Resistance to cataphoric control and the blocking effect of a matrix goal. The first one will be left as an open problem; the second one, to be addressed in the next section, will provide us with an important clue as to how to analyse the ambiguity of communication verbs.

Consider first cataphoric control. Given the right discourse conditions, the antecedent of PRO can be embedded quite low in the structure (Landau 2013:240-244). Below I boldface the controller and controllee in such a cataphoric relation.

(23) Dad was talking to Jen. He said that [**PRO**<sub>i</sub> preparing themselves for the exam] will make it clear to the teacher that [**the boys**]<sub>i</sub> were now taking their studies seriously.

Although the precise formulation of the conditions under which such NOC dependencies can take shape is a challenging task (involving both structural prominence, competition among potential antecedents, topicality and point of view), we do not need to undertake it here. For our purposes, it is sufficient to observe that under parallel circumstances, control into the complement of a communication verb fails.

(24) # Dad was talking to Jen. He said [PRO<sub>i</sub> to prepare themselves for the exam] so as to make it clear to the teacher that [the boys]<sub>i</sub> now take their studies seriously.

Now, it is true that (23)-(24) are not strictly minimal. Perhaps communication verbs allow cataphoric control in other configurations; I have not been able to find any such examples. The source of the contrast, therefore, remains unclear.<sup>10</sup>

#### 4 The two control verbs *say*

There is another important restriction that applies to NOC under communication verbs but not elsewhere: As already noted for (3), an overt goal argument of a communication verb “takes over” the control relation and antecedence by the actual addressee is no longer possible. NOC

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<sup>9</sup> Obviously, the effect follows from implicit OC as well; the implicit goal must be human and so must the PRO it controls. However, we have already seen conclusive evidence that PRO in the complement of communication verbs need not be controlled by the matrix goal. So the issue is to account for the [+human] restriction on PRO in (22c) even when it is uncontrolled.

<sup>10</sup> A possible idea is that cataphoric control relies not only on logophoricity but also on strong topicality (Bresnan 1982, Kawasaki 1993), and that NOC under communication verbs (for some reason) does not register topicality.

in subject clauses, in contrast, is not subject to such a strict tradeoff with OC. In most situations, the presence of a potential local controller does not exclude NOC. Thus, (25a,c) show that in the absence of a matrix argument, extra-sentential control by the addressee of the utterance is possible in both environments. (25b,d) show that the presence of an overt, potential local controller intercepts extrasentential control only under a communication verb but not in a subject clause.<sup>11</sup>

(25) *NOC under a communication verb*

Context: Mary told Bill to make sure that my addressee ( $\neq$ Bill) learns Spanish.

- a. Mary said [PRO to teach yourself Spanish].
- b. \* Mary said to Bill [PRO to teach yourself Spanish].

*NOC into a subject clause*

Context: Bill will greatly benefit if my addressee ( $\neq$ Bill) learns Spanish.

- c. It would be helpful [PRO to teach yourself Spanish].
- d. It would be helpful for Bill [PRO to teach yourself Spanish].

In our running scenario, where dad tells Jen “Go tell the kids to behave themselves”, she cannot report it to the boys as (26a). Nor can one of the boys use (26b) to report the same event.

- (26) a. \* Dad said to me [PRO to behave yourselves].
- b. \* Dad said to Jen [PRO to behave ourselves].

In fact, this blocking effect extends beyond the SAC option: a matrix goal also blocks long-distance and discourse control (cf. (19)-(20)). Importantly, even speakers who somewhat dislike PP complements to control *say* find (27a-b) distinctly worse, due to the lack of local control.

- (27) a. \* The boys<sub>i</sub> couldn't believe that dad said to Jen [PRO<sub>i</sub> to behave themselves].
- b. \* The boys<sub>i</sub> looked at each other. Dad said to Jen [PRO<sub>i</sub> to behave themselves].  
This was insane.

The puzzle, then, is this: Why does a local controller (in the sense of fn. 11) block NOC under a communication verb but not elsewhere? We can put it differently: not as an issue of

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<sup>11</sup> Admittedly, local control is often the default reading one gets in sentences like (25d), but this is just a parsing preference (for local resolution of gaps) that context can override. In contrast, no context can make (25b) grammatical, even for speakers who in principle allow PP-complements with control *say* (see fn. 2). Note that "local" here is the standard sense of locality relevant to control theory: A DP/PP is local to PRO iff exactly one clause boundary intervenes between them (namely, the clause boundary of the infinitive/gerund).

blocking by an *overt* controller but rather of failure of blocking by an *implicit* controller. That is, we may ask why an implicit local controller does not block NOC but an overt one does – only for communication verbs.

The latter formulation suggests a natural distinction between a true implicit argument and merely an understood participant. Specifically, assume that communication verbs are lexically ambiguous between a truly communicative, triadic sense and a declarative, dyadic sense. Whereas the former selects an optional goal argument, the latter lacks it altogether.

- (28) a.  $say_1: \langle \text{agent}, (\text{goal}), \text{proposition} \rangle \Rightarrow \text{OC}$  (communicative)  
 b.  $say_2: \langle \text{agent}, \text{proposition} \rangle \Rightarrow \text{NOC}$  (declarative)

Constructions with an overt goal would unambiguously pick  $say_1$ ; those without an overt goal would realize either  $say_1$  with an implicit goal or  $say_2$  without any goal. Crucially, "not selecting a goal argument" is not tantamount to "lacking a notional addressee". Argument structure is notoriously selective and important semantic aspects – even entailments – are often left outside of it. A case in point, directly relevant to our concerns, involves so-called "mandative" verbs (*order, require, command, permit*). Barrie and Pittman (2010) show that contrary to the common view, these verbs should be analyzed as Raising-to-Object verbs rather than object control verbs, *even* when followed by non-expletive DPs. The postverbal DP is always selected by the lower predicate. Often it is identified as the "goal of mandation", but this is not necessary.

- (29) The chief medical officer ordered the patient to be examined by an ophthalmologist.

"This sentence can be used to describe a situation in which the chief medical officer gives an order to her assistant for an ophthalmologist to examine a particular patient", Barrie & Pittman write (p. 136). The understood goal cannot be expressed overtly in this construction (although it can with a *for*-infinitive), so it cannot be a selected argument. Still, its participation is implied.<sup>12</sup>

I would like to suggest that the notional addressee in goal-less sentences like (2)/(4)/(10) is of a similar status: Understood, but not selected. In support of this idea, one can point to situations where NOC (specifically SAC) obtains although no obvious addressee can be identified. Suppose that Jack and Jerry open their father's will for the first time long after he had passed away. They read sentence (30a) there, or maybe sentence (30b), whereupon Jack utters sentence (30c).

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<sup>12</sup> A parallel argument, that deontic modals do not syntactically project the "bearer of obligation" role, has been made in Bhatt 1997 and Wurmbrand 1999.

- (30) a. The will's text: "As for my two sons: take care of yourselves no matter what you do".
- b. The will's text: "As for my two sons, they should take care of themselves no matter what they do".
- c. Jack: "Dad said to take care of ourselves no matter what we do".

One would be hard pressed to say that the act of writing the will, which took place in dad's privacy, was a "communicative act" whose addressees were the two sons. Not only did the sons receive the message long after its author had died, but the message itself need not be directed *to* them (30a); it can just as well be *about* them (30b). Strictly speaking, in fact, the two sons are not even the addressees of (30a), at least if an addressee of a speech act must be present in it; rather, their mental representations in dad's mind are. Nonetheless, SAC is licensed in (30c), for which the declarative analysis seems natural.<sup>13</sup>

The unavailability of NOC in (26)-(27), on this account, follows directly from the assumption that a matrix goal of *say* is an obligatory controller. When NOC obtains, it is not "over the shoulder" of an implicit goal (which controls just as obligatorily as an explicit one does); rather, it is thanks to the option of selecting the goal-less, declarative *say*<sub>2</sub>. This complementarity justifies an ambiguity-based analysis, unlike in standard cases of NOC, where a single lexical entry can handle all the options. To see this, compare (26)-(27) with (31), where a local controller does not block deictic/long-distance control.

- (31) Mary<sub>i</sub> said that [PRO counting on herself<sub>i</sub>/myself/himself<sub>j</sub>] would be useful for Peter<sub>j</sub>.

Standard NOC such as (31) allows the full range of interpretations for PRO (provided the right discourse conditions are met). It would thus be entirely spurious to posit one lexical entry of *useful* for local control (by *Peter*) and another one for deictic/long-distance control (by the speaker or *Mary*). Communication verbs are evidently different. In fact, a local goal controller blocks not only NOC but also local agent control.<sup>14</sup>

- (32) \* Jen<sub>i</sub> said to the boys [PRO<sub>i</sub> to teach them by herself].

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<sup>13</sup> Another use of communication verbs for which the declarative denotation seems natural involves information-containing inanimate subjects. Note that one can hardly talk of "a speech act" in (i)-(ii) (which were found on the web); indeed, the sentences are stative. Correspondingly, there is no goal argument.

- i. The sign says to take the next left.  
 ii. The diet recommends drinking 6-8 glasses of water a day.

<sup>14</sup> (32) lacks the perfectly sensible reading its finite variant has: *Jen said to the boys that she should/would teach them by herself*. Notice that the so-called Minimal Distance Principle cannot be invoked to rule out subject control given its general inadequacy with promissive and proposative verbs (Jackendoff and Culicover 2003, Landau 2013:149-154).

Such a restriction to one particular controller cannot be built into the lexical entry of a NOC predicate. If, however, the NOC predicate (28b) simply does not project a goal argument, (32) must involve the OC predicate (28a). Typically, control shift with ditransitive OC predicates is quite limited and depends on very special circumstances (involving flexible authority relations, deontic modality etc.), which do not obtain in (32). The absence of subject control, therefore, is not surprising.

One last fact remains to be explained: Why is subject control ruled out in the absence of an overt goal?

(33) Peter<sub>i</sub> said [PRO<sub>j/\*i</sub> to work harder].

The problem arises because *say* in (33) could either be *say*<sub>1</sub> with an implicit goal or *say*<sub>2</sub>, the NOC variant. Choice of controller for the latter is presumably free (and may even target subjects, as in (19)), so why is it not free in (33)?

The explanation here must be relatively "shallow", given that counterparts of *say* do allow subject control in a variety of other languages.

(34) a. *French* (Pollock 1989)

Il<sub>i</sub> avait dit [PRO<sub>i</sub> ne pas vouloir donner suite à ma demande].  
 he has said NEG not to.wish to.take action to my request  
 'He said he did not wish to take any action concerning my request.'

b. *Brazilian Portuguese* (Modesto 2016)

O Pedro<sub>i</sub> disse [PRO<sub>i</sub> ter resolvido todo problema que a Maria resolveu].  
 the Pedro said to.have solved every problem that the Maria solved  
 'Pedro said that he had solved every problem that Maria did.'

c. *Korean* (Lee 2009:271)

Mina<sub>i</sub>-ka Pata<sub>j</sub>-eykey [PRO<sub>i/\*j</sub> cip-ey ka-keyss-ta-ko] malha-yess-ta.  
 Mina-NOM Pata-DAT home-LOC go-VOL-DECL-C tell-PST-DECL  
 'Mina<sub>i</sub> told Pata<sub>j</sub> that she<sub>i/\*j</sub> would go home.'

d. *Dutch* (Petter 1995)

Jan<sub>i</sub> zei tegen Marie<sub>j</sub> [PRO<sub>i/j</sub> *Oorlog en Vrede* voor maandag te moeten lezen].  
 Jan said to Marie *War & Peace* before Monday to must read]  
 'Jan<sub>i</sub> said to Mary<sub>j</sub> that he<sub>i</sub>/she<sub>j</sub> must read *War & Peace* before Monday.'

Notice the semantic diversity of this sample. The complement may be realis or irrealis, the speech act may be either a promise or a report, and subject control may or may not exclude object control. In many languages, control *say* is sufficiently polysemous to accommodate all these senses, *on top* of the directive, irrealis sense that is found with object control by a matrix goal. Languages like Korean and Japanese are different from Indo-European languages in modulating the different options via a mood system; e.g., the volitional mood particle *-keyss* in (34c) imposes strict subject control.

Given that *say* is consistent with local subject control in many languages, how should we understand the restriction in the English example (33)? Here I sketch two possibilities that suggest themselves. The first one is to locate the variation in the degree of lexical polysemy afforded by *say*. Assume that three senses are potentially available: reportive, promissive and directive.<sup>15</sup> These senses interact with complementation in such a way that the finite complement of *say* is neutral between them; the nonfinite (control) complement, however, is often more selective, allowing only a subset of the three senses in certain languages.

It seems that English control *say* is necessarily directive. This restriction, then, clashes with an attempted subject control interpretation: In directive complements, PRO denotes the doxastic counterpart of the person to whom the command is issued – the so-called *de te* reading (Landau 2015, Pearson 2016). Under subject control, however, PRO denotes the doxastic counterpart of the reported speaker (the so-called *de se* center), the *source* of the command. Thus, there is no semantically coherent resolution of subject control *say* in English. Notice that sentences like *John said to himself to try harder* exhibit object control. Although the subject and object corefer, they correspond to distinct doxastic counterparts, John projecting two personal perspectives, so to speak, one as a speaker and the other as an addressee.

An alternative way of restricting the English OC verb *say* to object control only would involve the semantics of the complement rather than the verb. In particular, we may exploit the observation that infinitival complements often carry their own characteristic modal flavor (Pesetsky 1991, Bhatt 1999, Wurmbrand 2014). In fact, we may think of this modal component as the null counterpart of the overt Korean mood markers.

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<sup>15</sup> Obviously these labels can and should receive precise articulations, however, they are sufficient for the present purposes.

Assume, then, that reportive complements are not modal, while promissive and directive ones each involves a different modal component. Only the first two types can give rise to subject control. If the infinitival morphology in the English complement of *say* only encodes the specific modal flavor of commands – that is, if it strictly corresponds to the Korean imperative mood marker *-la* – then it will be incompatible with subject control. As we see in (34), complement selection can be more versatile in other languages.

Whatever approach proves correct – the one centered on the semantics of the control predicate or the one centered on the semantics of the complement clause – we can safely conclude that the failure of subject control in (33) does not pose a challenge to the basic claim that communication verbs can take NOC complements.<sup>16</sup>

## 5 The grammatical representation of context

I have proposed that communication verbs are systematically ambiguous between an OC and an NOC usage. But how is the distinction expressed in the grammar? In this section, I show that it can be naturally expressed within Landau's (2015) Two-Tiered Theory of control. Furthermore, I will present evidence from the interaction of SAC and VP ellipsis supporting the conclusion that speech act participants are accessed via their grammatical representations. The overall picture will be seen to be streamlined with current understanding of how control and context are grammatically represented.

Landau (2015, 2016) has recently proposed a possible unification of OC and NOC. Landau shows that control into complements breaks into two types, each with its own cluster of syntactic and semantic properties: Predicative control, found with nonattitude verbs, and logophoric control, found with attitude verbs. The latter type shares an important design feature with NOC: The controlled CP encodes the context's coordinates – author, addressee, time and world – where the context can be either anchored to the matrix speech/thought event or to some salient context in the common ground, producing logophoric OC and NOC, respectively. The linking of PRO to the author/addressee role simultaneously accounts for the

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<sup>16</sup> Both the predicate-centered and the complement-centered explanations for (33) automatically extend to (32) and thus overlap with the proposal that the latter is excluded for a different reason, namely, that NOC *say* does not license a goal argument. This may be an accident of English, however; there may well be languages in which (33) is fine but (32) is still impossible.

*de se/de te* reading of OC PRO (in attitude contexts) and for the logophoric sensitivity of NOC PRO, bringing these well-known properties together under a single roof.<sup>17</sup>

Within this framework, OC and NOC do not differ at all in how they link PRO to context's coordinates (speaker or addressee), which are always represented on the local C. They only differ in *which* contextual information (i.e., which context of speech/thought) they make available in C for PRO. OC is restricted, by selection, to specify the matrix context on the head of the controlled CP. NOC allows reference to any context – linguistic or deictic (speech act) – as long as it is salient. Against this background, it is natural to allow communication verbs to figure in both configurations.

(35) *Local Context accessibility in control*

	C <sup>0</sup> encodes $c_{\text{matrix}}$	C <sup>0</sup> encodes $c_{\text{Speech-Act}}$	C <sup>0</sup> encodes $c_{\text{ling-distance}}$
Complement of OC verbs	+	–	–
Complement of OC communication verbs	+	–	–
Complement of NOC communication verbs	+	+	+
Standard NOC clause	+	+	+

Note that this table does not express *absolute* context accessibility in controlled clauses. Trivially, the speech act context is always available and determines the interpretation of indexical expressions, however deeply embedded (barring indexical shift). What table (35) specifies is which context is *locally* available to PRO. In Landau's (2015) system, this local context is encoded in C, which projects a pronominal coordinate that supplies PRO's reference.<sup>18</sup> For standard logophoric OC, we assume that the context variable in C is fixed (as  $c_{\text{matrix}}$ ). For NOC, the context variable is unconstrained, which is why it can range over all

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<sup>17</sup> The idea that controlled subjects are notionally on a par with indexical pronouns has its origins in Postal 1970 and was later developed in Bianchi 2003. It finds striking support in language like Korean and Japanese, where controlled complements are marked for speaker/addressee orientation by designated mood markers (Madigan 2008a, 2008b, Pak, Portner and Zanuttini 2008, Hasegawa 2009, Matsuda 2014).

<sup>18</sup> *Which* pronominal coordinate – the AUTHOR or ADDRESSEE – is selected is not determined in the syntax. Thus, the choice between subject and object control is an outcome of the complex interaction between lexical knowledge and pragmatic information (e.g., authority relations). See Landau 2013:136-148 for extensive discussion.



three options. Communication verbs enter the syntax either as triadic predicates (28a) that select  $c_{\text{matrix}}$  on C or as dyadic predicates (28b) that select  $a$  context variable on C, but not a specific one.<sup>19</sup>

A deeper question is why communication verbs are singled out from the OC class in being able to support NOC. For example, why is SAC in English not available with promissive verbs?

(36) \* It was guaranteed to find myself/yourself a better seat.

Is (36) possible in other languages? If not, is it because the implicit passive agent is more obstructive to SAC than an implicit goal (see van Urk 2013 for pertinent discussion)? These are questions well worth pursuing, but they go beyond my modest goals. One possible speculation is that communication verbs – unlike other OC verbs – mimic matrix environments, if the latter are also introduced by some covert speech act predicate (a version of the "performative analysis"). On this view, the perspective is shifted: Introducing an unconstrained context of evaluation is the *default* option for communication verbs, whether used as covert predicates that introduce matrix clauses or overt verbs that introduce complement clauses. Their special property is rather the ability to also introduce a restricted context – namely, the reported one – in much the same way that other attitude verbs do. Since the details and prospects of this suggestion ultimately depend on much more comparative data, I will leave it at that.

Let us take another look at table (35). What exactly is meant by "C encodes  $c_{\text{Speech-Act}}$  Or  $c_{\text{long-distance}}$ "? The claim that the grammar of SAC encodes speech act participants goes *beyond* the observation that PRO may refer to such participants. To illustrate, take example (2), and let  $g$  be the assignment function,  $b$  the index of *the boys*, and  $c^*$  the utterance context in which Jen speaks. Then we can informally represent the denotation of the embedded subject in two ways.

(37) Dad said to be quiet.

- a. Direct deictic reference: Dad said that  $\mathbf{g(b)}$  should be quiet.
- b. Speech Act Control: Dad said that  $\mathbf{ADDRESSEE(c^*)}$  should be quiet.

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<sup>19</sup> More specifically, within Landau's theory, logophoric control is mediated by a concept generator G at the left periphery of the complement clause. Under OC communication verbs, G contributes the ADDRESSEE function. In standard OC by the matrix goal, the context argument of that function is the reported context. Under NOC verbs, G is free to contribute either the AUTHOR or ADDRESSEE function, and that function is free to apply to any salient context argument.

Since  $\text{ADDRESSEE}(c^*)=g(b)=\textit{the boys}$ , (37a) and (37b) are truth-conditionally equivalent in the given scenario. However, they imply very different grammatical representations for the complement clause in (2).

- (38) a. Direct deictic reference:  $[_{CP} \text{PRO}_b \text{ to be quiet}]$ .  
 b. Speech Act Control:  $[_{CP} \lambda c [\text{ADDRESSEE}(c) \text{ to be quiet}]]$ .

In particular, only (38b) embodies the idea that *the boys* is a potential antecedent for PRO in virtue of being picked out by a grammatical (semantic and possibly syntactic) representation of the speech act addressee.<sup>20</sup> In (38a), no grammatically present ADDRESSEE function mediates reference to *the boys*.

Evidence from VP-ellipsis favors (38b) over (38a). Consider the following scenario.<sup>21</sup>

- (39) Dad and mom are reading in the living room. Jen, the older daughter, is there too. The little boys and the little girls are in the kids' room, making a hell lot of noise. Dad tells Jen to go tell the *boys* to be quiet. Mom tells Jen to go tell the *girls* to be quiet (they are not aware of each other's orders). Jen walks over to the kids' room and says:  
**“[To the boys:] Dad said to be quiet, [turning to the girls] and mom did too”.**

The first thing to note is that Jen's utterance is felicitous on the intended “sloppy reading”, where PRO in the first conjunct picks out *the boys* and PRO in the elided second conjunct picks out *the girls*.<sup>22</sup> The question is how this sloppy reading is compatible with the familiar parallelism condition on VP-ellipsis. On the “direct deictic reference” view (38a), in fact, the answer is not clear. On this view, the LFs of the antecedent and the elided VPs, schematically represented in (40), contain distinct referential elements in the embedded subject position:  $g(b)$  (=the boys) and  $g(g)$  (=the girls). Parallelism is not respected and ellipsis should not be licensed.

- (40)  $\text{VP}_1 = \lambda x. \lambda e. \text{say}'(x, [g(b) \text{ be quiet}], e)$   
 $\text{VP}_2 = \lambda x. \lambda e. \text{say}'(x, [g(g) \text{ be quiet}], e)$

<sup>20</sup> The specific grammatical representation of speech act participants is a matter of much debate, actively pursued in current research (Haegeman and Hill 2013); The format offered in (38b) is chosen for expository purposes only (see also fn. 19). The choice does not matter as long as the grammatical (i.e., lexical, syntactic or semantic) contents of the CPs in (38a) and (38b) are distinct.

<sup>21</sup> I am grateful to Hazel Pearson for pointing out such data to me.

<sup>22</sup> Analogous examples with “sloppy” speaker control can be easily constructed. In the context of (39), the following dialogue between a boy B and a girl G can take place following Jen's utterance.

- i. B: Dad said to behave ourselves.  
 G: Mom did too.

On the SAC view (38b), parallelism *is* respected because PRO in each conjunct is associated with the same expression, the ADDRESSEE function. Importantly, this function picks out a different referent in each conjunct because the context partially shifts in the middle of Jen’s utterance, from  $c_1$  to  $c_2$ , such that  $\text{ADDRESSEE}(c_1)=\textit{the boys}$  and  $\text{ADDRESSEE}(c_2)=\textit{the girls}$ . Given that the context argument of the ADDRESSEE function is bound by the local operator, and that each conjunct contains its own local operator, the sloppy reading arises.

- (41)  $\text{VP}_1 = \lambda x. \lambda e. \textbf{say}'(x, \lambda c_1. [\text{ADDRESSEE}(c_1) \text{ be quiet}], e)$   
 $\text{VP}_2 = \lambda x. \lambda e. \textbf{say}'(x, \lambda c_2. [\text{ADDRESSEE}(c_2) \text{ be quiet}], e)$

The two VPs in (41) respect parallelism in the same way that other cases of “sloppy pronouns” do so in VP ellipsis, i.e., via variable binding (e.g., *Max hung his coat and Karl did too*).

Note that throughout I remained neutral on the exact *syntactic* representation of PRO in SAC. Broadly speaking, there are two possibilities: Either PRO is simply identified with the ADDRESSEE function, or it is viewed as a minimal pronoun that is associated with this function post-syntactically, by some presupposition. Arguments in favor of the latter view, and against the former one (which amounts to indexical shift), are extensively discussed in Landau (2015, to appear), and will not be reviewed here.

I believe that context participants are syntactically represented as pronominal elements in the left periphery, but in embedded contexts do not normally carry inherent person features. However, the issue need not, and possibly cannot, be decided on the basis of the VP-ellipsis data. As is well-known, parallelism in ellipsis extends well beyond syntactic structure and covers purely semantic aspects as well. The strongest conclusion one can draw from the felicity of (39) is that the ADDRESSEE function is somehow represented either in the syntax or in the semantics of SAC, and it is visible “enough” to the grammar to count for ellipsis resolution. This is already a conclusion of considerable interest and implications for current debates on the interface between syntax and discourse, and it is certainly encouraging to theories of control that build upon a substrate of indexical interpretation.<sup>23</sup>

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<sup>23</sup> An outstanding problem is why *overt* indexical pronouns do not undergo context shift in parallel situations.

- (i) [Jen to the boys:] Dad said you are noisy, [turning to the girls] and mom did too.

Here the elided *you* in second conjunct cannot be understood as *the girls*, although the girls are the updated addressees of Jen. In fact, even in the OC counterpart of (39) an overt indexical pronoun for a goal argument cannot shift inside the ellipsis site (hence, the controlled PRO cannot either).

- (ii) [Jen to the boys:] Dad said to you [PRO to be quiet], [turning to the girls] and mom did too.

## 6 Conclusion

Verbs of communication display two types of control into nonfinite complements: (i) OC by an overt or implicit goal argument, or (ii) NOC, with the antecedent being the speaker/addressee of the utterance or some other salient participant. Past confusion concerning the proper analysis of these verbs stemmed from this ambiguity. The ambiguity-based analysis is motivated by a range of "blocking effects" observed with communication verbs but not in standard NOC. In particular, the fact that a local goal argument is an obligatory controller implies that the NOC variant lacks that argument.

The analysis has a number of interesting consequences. First, contrary to the common view (originated in Manzini 1983), NOC *is* found in some complement clauses. While Landau (2013:43-46) argued that such complements are necessarily nominalized (the DP layer serving to block OC), the evidence discussed in this paper suggests a more nuanced view. The availability of NOC in complement clauses depends not only on their structure but also on the selectional properties of the matrix predicate.

At the same time, on the view that OC and NOC are not different grammatical "essences", but rather two instantiations of a single underlying format, the ambiguity of communication verbs is naturally explained: The OC variant fixes the reported speech context as the one to which PRO is keyed, while the NOC variant allows PRO to be evaluated in any salient context of thought/speech. An interesting outcome of the discussion is a new argument (from VP-ellipsis) for the grammatical representation of speech act participants.

The case of communication verbs should be situated within the larger topic of control alternations. One such case involves complements and adjuncts that license either OC or a lexical subject (No Control, as opposed to NOC); see Sundaresan and McFadden 2009, Landau 2013:99-103, McFadden and Sundaresan 2017. More relevant are alternations between OC and NOC in adjuncts, originally observed in Williams 1992. As demonstrated in Landau 2017, these too involve a true ambiguity, although it is crucially not lexical but rather concerns the syntax of the left periphery of the adjunct clause. While there is no reason to

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Clearly, overt indexical pronouns shift outside ellipsis (iii), so the relevant constraint must be sensitive both to the presence/absence of an overt antecedent and to ellipsis. I leave this intriguing puzzle for future research.

(iii) [Jen to the boys:] Dad said you are noisy, [turning to the girls] and mom said you are too.

Although overt indexical pronouns do not shift under ellipsis, they display "dependent" readings in special circumstances (see Charnavel 2016).

believe that a single mechanism of alternation underlies or even should underlie these different phenomena, I believe that further comparisons between them will advance our understanding of control and its intricate interfaces in the grammar.

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