



Perspectival control and obviation in directive clauses

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Abstract

The paper proposes a new type of control configuration: perspectival control. This involves control of a non-argument *PRO* that combines with a directive modal operator in the Mood domain. This *PRO* encodes the individual to whom the public commitments associated with the modal are anchored, and its presence can be detected in the syntax through a subject obviation effect. The empirical focus of the paper are Slovenian directive clauses (imperatives and subjunctives), but the analysis is shown to also have implications for analyses of other languages, as well as theories of directive clauses and the representation of discourse-related information in the syntax.

Keywords Control · Directives · Embedded imperatives · Performative modals · Perspective · *PRO* · Slovenian · Speech reports · Subject obviation · Subjunctives

1 Introduction

“Obviā et Imperā!”

The question of how much the semantics of modal expressions depends on representational factors has received much attention recently, e.g. in the work of Hacquard (2006, 2010), where differences in modal “flavor” are derived from a modal’s relative position to (among other things) the syntactic loci of tense and aspect. Similar ideas are being explored in relation to discourse-related properties of clauses, in particular the idea that information about speech act participants may be encoded in the syntax (see Speas and Tenny 2003; Speas 2004; Zu 2018, i.a.).

The notions of modality and discourse intersect occasionally in the domain of public commitments of speech act participants. Consider the fact that a sentence with a modal expression like (1) cannot be felicitously followed up by (2).

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- (1) Given the article in the Hampshire Gazette, Mary Clare Higgins **must** have been re-elected.
- (2) #...but I wouldn't be surprised if she wasn't. The Gazette is usually too quick to draw conclusions from projected election results. (Kratzer 2012: 21)

(1) publicly commits the speaker to the truth of the proposition the modal scopes over, so (2) amounts to a contradiction. In a representational approach, one may want to link this to a syntactically encoded speaker interacting with the modal, thus combining representational approaches to modals and to discourse information. But ideally, we want to posit such relations only when we can also identify them syntactically.

This paper explores a related phenomenon, which I argue shows that such relations between modals and individuals do exist and have consequences for both semantics and syntax. Directives, which include imperatives, show similar public commitment effects to those in (1)/(2). An imperative cannot be followed up with a distancing act:

- (3) Read the paper (#but I don't want you to / #but I know you won't)

In Slovenian, which is the language I focus on in this study, directives can be embedded in speech reports—this includes imperatives and (directive) subjunctives. Because of this possibility, it can be shown that the public commitments associated with an imperative are always tied to the attitude holder: the speaker in matrix directives and the original speaker (realized as the matrix subject) in embedded directives.

Interestingly, this pattern finds a parallel in the syntax of the construction: it displays a subject obviation effect (see Bouchard 1982; Picallo 1985; Kempchinsky 1986; Farkas 1992a; Progovac 1993, i.a.). Subject obviation is best described as a ban on coreference between the attitude holder and the subject. Countering much previous work, I show, based on Slovenian data, that subject obviation does not only operate in embedded clauses. More precisely, I show that the subject obviation pattern is different depending on the context a directive clause occurs in: (i) in attitude reports, the ban on coreference holds between the attitude holder and the subject of the embedded directive; (ii) in matrix contexts, the subject of the directive cannot refer to the speaker; and (iii) in interrogative contexts, the subject of the directive cannot refer to the addressee. The pattern here is consistent with a broader set of semantic and syntactic phenomena that are known to relativize to the attitude holder in the case of attitude reports, the speaker in the case of matrix declaratives, and the addressee in the case of interrogatives. For instance, parallel patterns can be found with predicates of personal taste, evidentials, epistemic modals, conjunct/disjunct marking systems, and a variety of other phenomena (see e.g. Pearson 2012 for a recent discussion and references).

I propose that both the speaker distancing facts and subject obviation patterns in Slovenian directives can be attributed to the presence of a “perspectival” *PRO* in the Mood domain, which satisfies a semantic requirement of a directive modal operator. The pronoun serves as an anchor for public commitments associated with the modal, but it also acts as an antecedent for binding in syntax, which causes it to yield the subject obviation effect—in fact a result of Binding Condition B. Most importantly, the perspectival *PRO* (generally) refers to the speaker in matrix directives, while in embedded directives it receives its denotation the same way as subject *PRO* does in

control infinitives. I refer to this configuration as *perspectival control*. For reasons of space, I focus almost exclusively on the case of Slovenian directives in this paper. However, I provide a brief discussion of the proposal’s potential extensions and its implications for some of the other perspective-sensitive phenomena referenced above.

This paper is structured as follows. I first look at the phenomenon of subject obviation (Sect. 2). I establish that it occurs in embedded directives in Slovenian (Sect. 2.1), that it has a matrix counterpart (Sect. 2.2), and that it conforms to Condition B violations (Sect. 2.3). After that, I draw attention to the parallelism between subject obviation and the speaker distancing ban (Sect. 2.4). I then proceed to lay out the analysis in terms of perspectival control (Sect. 3). Having established the analysis, I compare it to three possible alternatives, showing that they cannot capture the Slovenian data under consideration (Sect. 4). Finally, I explore some extensions of the proposed account, focusing on parameters of variation and implications for crosslinguistic studies (Sect. 5), before offering some closing remarks (Sect. 6).

2 Obviation beyond subjunctives and embedded clauses

In a number of languages, including Spanish, when subjunctive verbs occur embedded under an attitude verb, as in (4),¹ there is a ban on coreference between the matrix subject and the embedded subject of the subjunctive clause.

- (4) Queremos_i que { ganen_k / *ganemos_i }. Spanish
 want.1PL that win.SBJV.3PL / win.SBJV.1PL
 ‘We want them/*us to win.’ (Quer 2006: 662)

We call this effect *subject obviation*:² a ban on coreference between subjects. Coreference between matrix objects and the embedded subject is possible, as in (5). However, since I do not discuss other kinds of obviation effects in this paper, I will use *obviation* to describe the restriction illustrated in (4) for convenience sake.

- (5) Les_i pidió_k que se callaran_i. Spanish
 to.them ask.PST.3 that REFL be.quiet.SBJV.PST.3PL
 ‘S/he asked them to be quiet.’ (Quer 2006: 662)

Obviation has been researched extensively in the syntactic literature (see Bouchard 1982; Picallo 1985; Kempchinsky 1986, 2009; Rizzi 1990; Farkas 1992a; Progovac 1993, i.a.), where it is usually tied to some inherent property of subjunctive verbs and limited to embedded contexts. As a point of departure, I show that obviation is not limited to subjunctive verbs, as it also occurs with imperatives in Slovenian, and that a counterpart of the restriction is observed in matrix clauses as well.

¹ All examples are glossed using Leipzig glossing rules. Unmarked number, case, and tense are left out unless relevant; e.g. 1, 2, 3 with no number information refers to first, second, and third person *singular*. Referential indexes of subjects in *pro*-prop languages are marked on the verb/auxiliary marked for person.

² Sometimes also referred to as the *disjoint reference* effect.

2.1 Embedded imperatives and obviation

The existence of obviation in imperatives has been overlooked largely because imperatives are typologically rare in embedded contexts. Crucially, embedded imperatives are banned in Romance, the language group most often associated with obviation. This is illustrated for Spanish by the examples in (6): an imperative cannot be embedded in a speech report (cf. (6a)), so a subjunctive verb must be used in its place (cf. (6b)).

- (6) a. *Pido que dad me el libro. Spanish
 ask.1 that give.IMP.(2) I.(DAT) the book
- b. Pido que me deis el libro.
 ask.1 that I.(DAT) give.SBJV.2 the book
 ‘I ask that you give me the book.’ (Han 1998: 39)

Such subjunctive verbs are thus *surrogate imperatives* in the terminology of Zanuttini (1997): they surface in contexts where imperatives cannot appear (in this case embedded clauses) to serve the same function as the imperative would have.

Because of their rarity, embedded imperatives have even been claimed to be universally unavailable (Sadock and Zwicky 1985; Han 1998). But recent empirical evidence from languages like Korean (Portner 2007; Pak et al. 2008), Japanese (Oshima 2006; Schwager 2006), Old Scandinavian (Rögnvaldsson 1998), Colloquial German (Schwager 2006; Kaufmann and Poschmann 2013), Ancient Greek (Medeiros 2013), Mbyá (Thomas 2012), and (although controversial) even English (Crnič and Trinh 2009a, b), has helped establish a new consensus where, while imperative embedding is not nearly as liberal as embedding of other clause types, it exists as an option (see also Kaufmann 2016a for a brief overview).

In this context, Slovenian is often considered a case where imperatives can appear as complements with seemingly no restrictions. This aspect of Slovenian has been discussed by Sheppard and Golden (2002), Dvořák (2005), Rus (2005), and Dvořák and Zimmermann (2008).³ Sheppard and Golden show that imperatives can be embedded in Slovenian at least in (restrictive) relative clauses, as in (7a), speech reports, as in (7b), as well as argument clauses and adnominal complement clauses.

- (7) a. To je film, ki si ga oglej čimprej. Slovenian
 this is film which REFL.DAT 3.M.ACC watch.IMP.(2) a.s.a.p
 ‘This is a/the film which you should see as soon as possible.’
- b. Rekel je, da delaj bolje.
 said.M is that work.IMP.(2) better
 ‘He said that you must work better.’ (Sheppard and Golden 2002: 251)

Speech reports like (7b) resemble the obviation contexts from before (cf. (4)–(6)) in that they can relay attitudes that someone other than the speaker held at times other than

³ I direct the reader to these sources also for evidence that the relevant cases do not involve direct quotation and that the clausal complements are true imperatives.

Table 1 Complementary distribution of imperative forms (white) and surrogate subjunctive forms (gray) in Slovenian; imperative and subjunctive morphemes in boldface

<i>'pomagati'</i> (to help)	singular	dual	plural
1P (= exclusive)	naj pomaga-m	naj pomaga-va	naj pomaga-mo
1+2P (= inclusive)	IMPOSSIBLE	pomaga-j-va	pomaga- j -mo
2P	pomaga- j	pomaga-j-ta	pomaga- j -te
3P	naj pomaga	naj pomaga-ta	naj pomaga-jo

the utterance time—here, commands and related speech acts.⁴ But more importantly, imperatives embedded in speech reports also give rise to obviation, as shown in (8).⁵

- (8) *Rekel si_i, da si pomagaj_i.
 said.M are.2 that REFL.DAT help.IMP.(2)
 int.: ‘You said you should help yourself.’

Because the embedded imperative has a 2nd person (2P) singular subject and the matrix subject is also 2P singular, the two are coreferential and violate the obviation requirement. This contrasts minimally with the grammatical (7b), where the matrix subject is 3rd person (3P) singular. Like in the Spanish cases, the coreference restriction holds only between subjects, as shown by (9)—the matrix indirect object can be coreferential with the imperative subject.

- (9) Rekel (ti_i) je_k, da mu_{k,l} pomagaj_i.
 said.M (2.DAT) IS that 3.M.DAT help.IMP.(2)
 ‘He_k said (to you_i) you_i should help him_{k,l}.’

These examples do not yet conclusively show that we are dealing with obviation, since the imperative paradigm is limited to 2P and 1st person (1P) inclusive. The full pattern emerges once we extend the focus beyond imperative forms and include data from surrogate imperatives. With commands (or related speech acts) concerning an individual or group that excludes the addressee, Slovenian employs a subjunctive construction.⁶ The latter consists of the particle ‘*naj*’ and an inflected verb in present tense, and is in complementary distribution with imperatives based on the subject: directive ‘*naj*’ subjunctives are limited to 1P exclusive and 3P subjects (see Table 1).

When a subjunctive is embedded in the same manner as the imperatives in (7b), (8), and (9), it shows the same coreference restriction between subjects, as illustrated in (10). The restriction is exactly the same for 1P and 3P subjects.

⁴ The embedding complementizer ‘*da*’ guarantees that sentence (7b) cannot be interpreted as involving a direct quotation; like in English, the complementizer is incompatible with direct quotations.

⁵ This was first noted in Stegovec and Kaufmann (2015), although not yet identified as obviation.

⁶ It must be noted that the construction is not traditionally identified as subjunctive; it is sometimes called the *optative construction* or even the *analytic imperative* (see Roeder and Hansen 2006 for discussion and references). However, due to its distribution and canonical function—it occurs in a subset of cases where subjunctives occur—I refer to it as subjunctive. Subjunctives typically occur with volitional and other attitude predicates, and sometimes in special matrix contexts (see Schlenker 2005a; Quer 2006; Kempchinsky 2009; Costantini 2014). I leave open whether or not the infinitive/indicative/imperative/subjunctive mood distinction is sufficient for all the variation in clause types observed crosslinguistically.

- (10) a. Rekla { je_i / $*sem_i$ }, da naj si pomagam_k.
 said.F is / am that SBJV REFL.DAT help.1
 ‘She/*I said I should help myself.’
- b. Rekel je_i , da naj si pomaga_{k,*i}.
 said.M is that SBJV REFL.DAT help.3
 ‘He_i said he_{k,*i} should help himself.’

An objection one could raise here is that the coreference ban is not a grammatical effect: it is merely odd in most cases to tell or remind oneself what to do, so reporting such cases should likewise be odd. This objection does not hold up, mainly because scenarios of this kind can be reported felicitously—just not using embedded imperatives or subjunctives. Consider the context in (11).

- (11) CONTEXT: I proclaim “I should exercise more!” Later you remind me:
- a. *Rekel si_i , da več telovadi_i. (obviation)
 said.M are.2 that more exercise.IMP.(2)
- a’. Rekel si_i , da moraš_i več telovadit. (no obviation)
 said.M are.2 that should.2 more exercise.INF
 ‘You_i said you_i should exercise more.’

Informally, the intended meaning of the proclamation in (11) can be thought of as ‘The best course of action for me is to start exercising more’, much as how *Exercise more!* can be thought of as telling the addressee that exercising more is the best course of action for them in the given situation. Crucially, the former cannot be reported to the original speaker using an embedded imperative (cf. (11a)), but it can be reported to them with an embedded *modal+infinitive* construction (cf. (11a’)).

Similarly, we can construct a scenario where this kind of self-imposition is later reported by the speaker to someone else, like in the scenario in (12).

- (12) CONTEXT: I say “Exercise more!” to myself in the mirror. Later I can report:
- a. *Rekel sem_i , da naj več telovadim_i. (obviation)
 said.M am that SBJV more exercise.1
- a’. Rekel sem_i , da moram_i več telovadit. (no obviation)
 said.M am that should.1 more exercise.INF
 ‘I_i said I_i should exercise more.’

The subjunctive cannot be used to report the original imperative (cf. (12a)), whereas the modal+infinitive version can (cf. (12a’)). This falls in line with obviation in Romance, where modal+infinitive constructions behave the same (Quer 2006; Kempchinsky 2009). More importantly, (11) and (12) show that obviation is a grammatical effect tied to specific constructions, not a result of the oddness of the reported scenarios.

By comparing imperatives and subjunctives side by side, we see that the ban holds across the board, not only for specific person values. This indicates that the restriction is truly obviation, but also that the two constructions form a natural class. I propose, in fact, that subjunctive surrogate imperatives are directives in the same sense “true” imperatives are, which goes against traditional definitions like Searle’s (1976: 11):

(13) *Directives*

The illocutionary point of these consists in the fact that they are attempts [...] by the speaker to get the hearer to do something.

According to (13), only 2P imperatives can have a canonical directive function. However, it is not at all clear that limiting ourselves to 2P is useful either to describe a class of morphosyntactic expressions or a class of speech acts. In relation to the former, (13) does pick out imperatives as directives in English, where the imperative paradigm is limited to 2P, but not in Slovenian, where the paradigm extends to inclusive 1P. More radical departures are found in Hungarian, where the paradigm encompasses all three persons (Tóth 2007), and Rapanui, which has no dedicated imperative forms (du Feu 1996: 36–40) (essentially making all directives in the language surrogate imperatives). At the very least, this should make one concede that crosslinguistically imperatives are not necessarily directives (when imperatives extend beyond 2P), nor are directives necessarily imperatives (when a language lacks imperatives). But is keeping (13) as a measure for directives worth the price of this weakened position?

The guiding intuition behind (13) seems to be that the hearer/addressee is in a privileged position because they are the only individual that can simultaneously receive the direction and act upon it. But the relevance of this dual role is diminished when we consider imperatives embedded in speech reports. Consider the sequence in (14).⁷

- (14) a. Pero_i ⇒ Marko_j: Naj te_j on_k pobere!
SBJV 2.ACC he pick.up.3
 ‘He should pick you up!’
- b. Marko_j ⇒ Luka_k: Pero_i je rekel, da me_j ti_k poberi.
Pero is said.M that 1.ACC you pick.up.IMP.(2)
 ‘Pero said that you (= Luka) should pick me up.’

Ultimately, the subjunctive in (14a) is an attempt by Pero to get Luka to pick up Marko, even though Luka is not the addressee. He is the addressee in (14b) though—where a 2P imperative is used and Pero is not the speaker. Is the addition of a middleman in the speech act in (14a) sufficient for it to not be a directive speech act?⁸ Should it matter that (14a) can be felicitously reported as an imperative in (14b)? Perhaps matrix 2P

⁷ The arrow (⇒) identifies the speaker (left of arrow) and addressee (right of arrow) of the utterance.

⁸ Zanuttini et al. (2012) suggest that seemingly 3P directing speech acts like *Let the table be clean!* really mean ‘See to it that the table is clean!’ and are thus still directing the addressee. However, when the addressee is completely removed and we have a scenario where the speaker does not require a mediator to accomplish the desired action, the addressee dependence goes away. Consider (i) and (ii):

- (i) Let there be light!
- (ii) See to it that there is light!

It is infelicitous (or blasphemous) to consider (ii) a paraphrase of (i). There is no addressee (or anything else) in existence in the relevant context to be directed, so (i) could not be considered a directive speech act unless we change the definition in (13). The Slovenian translations of (i) are also telling in relation to this issue. The official (and archaic) translation in (iii) is with an imperative; note that with the lack of an actual addressee, the 3P noun ‘light’ is the subject of the imperative. A more natural sounding translation is found in the song ‘*Osmi dan*’ [*The Eight Day*] by the band *Pankrti*, as given in (iv) (‘*Let there be light*’ is not in the song, so I use a close equivalent); note that it is a subjunctive with a 3P subject, and to paraphrase it like (ii) is impossible. An addressee is thus not required with either form.

imperatives should be considered a special class, but that would not help us understand the parallel behavior of true and surrogate imperatives with respect to obviation and a number of other phenomena I discuss below. To the extent that what unifies these constructions on the pragmatic side is their use to direct individuals either directly or indirectly, I introduce the definition of directive speech acts in (15).

(15) *Directive Speech Act*

The speaker attempts to make an individual or group of individuals ensure that the non-modal content of the utterance is realized.

I assume *directives* to be clauses whose canonical function is that of a directive speech act.⁹ This includes imperatives and surrogate imperatives regardless of their subject. Following this definition, directives can be either matrix or embedded clauses. In languages like Spanish, imperatives specifically are limited to matrix contexts (cf. (6)). In Slovenian, though, imperatives exist in both matrix and embedded clauses, and their person-based complementary distribution with subjunctives holds throughout. As we see next, definition (15) will allow us to establish a previously unnoticed aspect of obviation.

2.2 Matrix obviation

In Slovenian, imperatives exist for all 2P subjects: singular (cf. (16a)), plural (cf. (16b)), and dual. 1P imperatives also exist, but they are limited to inclusive 1P—that is, referring to groups including both the speaker and the addressee, which automatically restricts 1P imperatives to plural (cf. (16c)) and dual forms.

- | | | |
|------------------|---------------|---------------|
| (16) a. Pomagaj! | b. Pomagajte! | c. Pomagajmo! |
| help.IMP.(2) | help.IMP.2PL | help.IMP.1PL |
| ‘Help!’ | ‘Help(pl.)!’ | ‘Let’s help!’ |

Footnote 8 continued

- (iii) Bodi svetloba!
 be.IMP.(2) light
 ‘Let there be light!’
- (iv) Prvi dan je reku nej bo nebo in nej bo zemlja!
 first day is said.M SBJV will.be.3 sky and SBJV will.be.3 earth
 ‘On the first day he said let there be sky and let there be earth!’

This issue relates to the behavior of another class of performatives: *F**k you!* versus *Go f**k yourself!* (see Dong 1992). The former would yield a Condition B violation with the 2P object if the null imperative subject were also 2P, indicating that the speaker actually commands some other entity to *f**k* the addressee. This in turn makes such speech acts the inverse of what Zanuttini et al. (2012) propose for 3P directives, suggesting that even in English the imperative subject need not be the addressee (see also Potsdam 1996).

⁹ Note that I do not claim that directives can only be used as commands. In fact, both imperatives and subjunctives (in Slovenian) can have the full range of meanings associated with imperatives: invitation, advice, wish, etc. (see Kaufmann 2012 for an exhaustive list). However, for ease of exposition I will limit the discussion of directives mainly to commands and set aside their expressive uses, such as wishes.

As noted previously, a subjunctive is used in all other cases; e.g. 3P subjects (cf. (17)). Importantly, a subjunctive cannot be used directly with subjects for which an imperative is available—the two directive forms are in complementary distribution.

- | | | | |
|---------|--|----|---|
| (17) a. | Naj pomaga!
SBJV help.3
'(S)he should help!' | b. | Naj pomagajo!
SBJV help.3PL
'They should help!' |
|---------|--|----|---|

But the complementary distribution is only total in embedded contexts, where the paradigm resulting from combining imperatives and subjunctives has no gaps. In matrix contexts, 1P subjunctives are ungrammatical. This is shown in (18a) for a 1P singular subject and in (18b) for a 1P plural exclusive subject (1P dual is the same).¹⁰

- | | | | |
|---------|--|----|---|
| (18) a. | *Naj pomagam!
SBJV help.1
int.: 'I should help!' | b. | *Naj pomagamo!
SBJV help.1PL
int.: 'We(excl.) should help!' |
|---------|--|----|---|

Exclusive 1P subjects are absent in matrix directives (exclusive 1P is used from here on to cover both 1P singular and plural/dual exclusive), and this is not just an idiosyncrasy of Slovenian. The same pattern emerges with the French matrix directives in (19)–(21). Like in Slovenian, imperative forms exist for 2P (cf.(19)) and 1P inclusive subjects (cf. (20a)), and subjunctives function as complementary surrogate imperatives (cf. (21)). Neither directive can occur with 1P exclusive subjects (cf. (20)).

- | | | |
|---------|--|------------------------|
| (19) a. | { Sois / Soyez } prudent(s)!
be.IMP.2 / be.IMP.2PL cautious(.PL)
'Be(sg./pl.) cautious!' | <i>French</i> |
| b. | *Que { tu / vous } { sois / soyez } prudent(s)!
that you / you.PL be.SBJV.2 / be.SBJV.2PL cautious(.PL)
int.: 'You(sg./pl.) should be cautious!' | |
| (20) a. | Soyons prudents!
be.IMP.1PL cautious.PL
'Let's be cautious!' (obligatorily <i>inclusive</i>) | |
| b. | *Que nous soyons prudents!
that we be.SBJV.1PL cautious.PL
int.: 'We should be cautious!' | |
| (21) | Que votre Altesse soit prudente!
that your Highness be.SBJV.3 cautious
'Let Her Majesty be cautious!' | (Schlenker 2005a: 280) |

¹⁰ Not all subjunctives in Slovenian show this gap though; matrix 1P singular/exclusive subjunctives are possible with a specific type of offer reading; e.g. *Naj vam pomagamo* (roughly 'Let me/us help you'). Importantly, these subjunctives exhibit further differences in their distribution and syntactic properties: they cannot be embedded and require the presence of a 2P ethical dative clitic (*ti/vam(a)*). Because of this, I assume that such subjunctives are syntactically distinct from those that exhibit the 1P gap. Note that the canonical cases of subject obviation are also known to be sensitive to the function/type of the subjunctive clause (see e.g. Ruwet 1984; Farkas 1992a; Kempchinsky 2009; I return to this in Sect. 3).

Table 2 The combined paradigm of matrix directives in Slovenian

'pomagati' (to help)	singular	dual	plural
1P (= exclusive)	*naj pomaga-m	*naj pomaga-va	*naj pomaga-mo
1+2P (= inclusive)	IMPOSSIBLE	pomaga-j-va	pomaga-j-mo
2P	pomaga-j	pomaga-j-ta	pomaga-j-te
3P	naj pomaga	naj pomaga-ta	naj pomaga-jo

Since embedded imperatives are absent in French, the person-based complementary distribution is limited to matrix contexts. Because of this, one might conclude (as does Schlenker 2005a) that the existence of 1P imperatives is sufficient to block the use of subjunctives for all 1P subjects. Imperatives are limited to inclusive 1P, so an exclusive 1P subject would never occur. This would not work for Slovenian though. Both 1P imperatives and 1P subjunctives are possible as embedded directives. The construction in (22a) involves a 1P plural imperative and (22b) a 1P plural subjunctive; having a 1P imperative form does not block the use of 1P subjunctives, hence attributing the exclusive 1P subject gap to blocking, as suggested above, cannot work.

- (22) a. Rekel je, da plavajmo. b. Rekel je, da naj plavamo.
 said.M is that swim.IMP.1PL said.M is that SBJV swim.1PL
 ‘He said we(incl.) should swim.’ ‘He said we(excl.) should swim.’

The two directives are distinct: the former has an inclusive 1P subject and the latter an exclusive 1P one.¹¹ This fine-grained pattern thus shows that the gap in matrix subjects cannot be attributed to a blocking effect between the two directive forms. The full combined directive paradigm is shown in Table 2, with the gap shaded in gray.

But what does this gap tell us? I argue that it shows the existence of a matrix equivalent of obviation. In an abstract way, both restrictions can be seen as precluding a singular subject from referring to the speaker: (i) the original speaker (the matrix subject) in embedded directives, and (ii) the actual speaker in matrix directives. The pattern is more complex for non-singular subjects, but still parallel to (i) and (ii); see Sect. 2.3. In the next section, I propose that this is not just a superficial similarity and that the two restrictions are in fact one and the same—a Condition B effect.

The matrix obviation effect can be clearly teased apart from a mere paradigmatic gap in Slovenian. Although the same cannot be conclusively shown for French, notice that a simple blocking analysis of the competing two constructions in (19)–(21) does leave unexplained the fact that 1P exclusive subjects are absent in both. The analysis of obviation I propose below, although based on and presented using Slovenian data, is meant to extend to cases like French, which crucially also exhibits obviation with embedded subjunctives.

¹¹ While normally the inclusive versus exclusive 1P distinction pertains to pronouns denoting groups either including or excluding the addressee along with the speaker, the contrast, interestingly, is a bit different with subjects of embedded directives in Slovenian; I discuss this in Sect. 5.2. We will also see in Sect. 2.3 that the inclusive versus exclusive contrast in matrix contexts is relevant for the correct analysis of obviation.

2.3 Generalized obviation and obviation as Condition B

Obviation constrains the use of directives so that their subjects cannot have a free range of referents. More precisely, their subjects cannot refer to the speaker (attitude holder) of the directive. In the “standard” embedded case (represented in (23a)) the embedded subject cannot refer to the individual(s) denoted by the matrix subject—the speaker in the original context. Likewise, in the case of matrix obviation (represented in (23b)) the matrix subject cannot refer to the speaker in the actual context (c).

- (23) a. [CP [SU_i [V_{ATT} [CP [SU_{k,*i} [V_{SBJV/IMP}]]]]]] (*embedded obviation*)
 b. [[x_i]^c = speaker(c); [CP [SU_{k,*i} [V_{SBJV/IMP}]]] (*matrix obviation*)

The restrictions are thus comparable on an abstract level. I argue that they are the same restriction also practically: *generalized* obviation, itself a result of Binding Condition B (cf. (24)), with the subject of the directive (typically *pro*) as the relevant pronoun.

(24) *Binding Condition B*

A pronoun must be free in its binding domain.¹²

Whether a pronoun is free is determined syntactically: it must not be c-commanded by a coindexed referential element in the binding domain. Coindexation is crucially a more specific notion than coreference (two elements with distinct indices may corefer), but I will use coreference as a cover term for both unless disambiguation is necessary.

There is a long line of research that treats obviation as a syntactic binding restriction (Picallo 1985; Kempchinsky 1986, 2009; Rizzi 1990; Progovac 1993; Bianchi 2001, i.a.), but these almost exclusively deal with embedded clauses. What I am proposing is a full extension of this view to matrix clauses. In relation to the embedded case (cf. (23a)), the burden of a binding approach to obviation is to explain how and why the two subjects come to count as being in the same binding domain—unlike in non-obviation contexts. An extension to the matrix case (cf. (23b)) must, along with the binding domain question, also explain how and why the speaker, who is not a syntactic entity, can count as an antecedent for binding. In Sect. 3, I will propose an analysis of generalized subject obviation in which the binding domains for Condition B are constant across obviation and non-obviation contexts and the antecedent for the restricted subject pronoun is the same element in both embedded and matrix contexts, thus avoiding the aforementioned issues. Pending that discussion, I first show that both the embedded and the matrix versions of obviation fit the profile of Condition B, by examining contexts where the restriction can be relaxed.

Condition B can be lifted under a number of circumstances (see Lakoff 1972; Evans 1980; Reinhart 1983; Grodzinsky and Reinhart 1993; Heim 1998, 2007; Schlenker 2005b for examples and discussion). Here, I examine specifically cases where Condition B is lifted in constellations of partial referential overlap, as these are particularly useful for comparisons between canonical Condition B examples and obviation.

¹² The literature on Condition B is full of competing accounts, and it is beyond the scope of this paper to discuss them or compare them (see Lasnik 1989; Reinhart and Reuland 1993; Safir 2004; Schlenker 2005b for some influential examples of post-Chomsky (1981) treatments of Condition B). As the reader will see, the exact nature of Condition B is not crucial for my account of generalized obviation. What matters is the nature of its domain of application, the elements it pertains to, and cases in which it appears to be relaxed.

As noted by Lasnik (1989), in examples like (25a), where the referent of the object ‘me/myself’ is a subset of the referents of the subject ‘we’, neither Condition A nor B can be satisfied. However, such partial overlap configurations improve with a collective reading of ‘we’ (see, among others, Reinhart and Reuland 1993: 676–677). Thus, (25b) is grammatical despite having a pronoun configuration excluded in (25a).

- (25) a. *We like { me / myself }. b. We elected me.

Ungrammaticality arises crucially also with obviation analogues to (25a) in Slovenian embedded directives. This is illustrated in (26), where the 2P subject of the embedded imperative cannot be interpreted as coreferential with any of the individuals in the group of people encompassed by the plural 1P inclusive subject.

- (26) *Rekli smo_{i+k}, da vprašaj_i Markota.
 said.PL.M are.1PL that ask.IMP.(2) Marko.ACC
 int.: ‘We_{i+k} said that you_i should ask Marko.’

However, just as with the canonical Condition B examples in (25), where overlap is disallowed only with distributed interpretations of plural pronouns (Safir 2004: 94–96), obviation is lifted if plural subjects are interpreted as collective. If we interpret (27b) (an analogue of (26)) with respect to context (27a), the matrix subject is interpreted collectively, and the partial coreference restriction is voided.

- (27) a. CONTEXT: A group of coworkers voted on how to get a piece of information, and it was decided that Pero (who also voted) should ask their boss for the information. But Pero immediately forgot what the decision was, so another member of the group reminds him:
 b. Rekli smo_{i+k}, da vprašaj_i šefa.
 said.PL.M are.1PL that ask.IMP.(2) boss.ACC
 ‘We_{i+k} said (= decided by vote) that you_i should ask the boss.’

Referential overlap is, for unknown reasons, tolerated more with 1P bound pronouns (Schlenker 2005b: 49–50), and collective readings are more salient when the overlap configuration is reversed—with the referent of the antecedent as the subset. Given this, speakers accept examples like (28) (cf. (25a)) without much additional context; in which case they also strongly prefer an inclusive 1P reading for the object.

- (28) I like us (as a couple).

The same can be observed with obviation in Slovenian directives. As seen in (29), when the referent of the matrix subject is a subset of the group referenced by an embedded 1P inclusive subject, referential overlap between the two is permitted.

- (29) Rekel sem_i, da vprašajmo_{i+k} Markota.
 said.M am that ask.IMP.1PL Marko.ACC
 ‘I_i said that we_{i+k} should ask Marko.’

Embedded obviation thus patterns with Condition B. What about matrix obviation? Since the role of the antecedent in the latter is taken up by the speaker—a singular entity—we cannot construct examples that parallel (25)–(27). Fortunately, equivalents

of (28) and (29) can be constructed. Recall that Slovenian has inclusive 1P imperatives, where the speaker is a subset of the individuals denoted by the subject. Assuming that the subject plays the role of the bound pronoun, the overlap configuration then parallels that in (28) and (29). Crucially, such imperatives are only grammatical with a collective reading of the plural subject. For example, the inclusive 1P imperative in (30a) only gets a collective reading. In fact, in order to express a distributive reading in a matrix directive, a 3P subject subjunctive like (30b) must be used in Slovenian.

- (30) a. Vprašajmo_{i+k} Markota!
 ask.IMP.1PL Marko.ACC
 ‘Let’s ask Marko!’ (#‘Each of us should ask independently.’)
- b. Naj vsak_i zase vpraša_i Markota!
 SBVJ each for.self ask.3 Marko.ACC
 ‘Let’s each individually ask Marko!’

Note that overlap is tolerated only with inclusive 1P subjects. While it is unclear why inclusive 1P allows a collective reading and exclusive 1P does not,¹³ the reading correlates to the tolerance for referential overlap—consistent with Condition B effects.¹⁴ What remains open is what the binding domain is in the case of obviation. Since obviation is found only in a limited set of constructions, a wholesale redefinition of what counts as a binding domain will not do. Instead I argue, based on the semantic behavior of directives, that the solution lies in identifying the relevant antecedent.

2.4 Who and where is the culprit?

The key idea put forth above is that the two manifestations of generalized obviation differ only in terms of which individual appears to play the role of the antecedent when obviation is characterized in terms of Condition B: (i) the actual speaker, or (ii) the original speaker (realized by the matrix subject). In a sense, the antecedent “shifts” in embedded directives to the original context. A parallel to this antecedent shifting is also observed with the impossibility of speaker distancing in imperatives.

When an imperative is uttered, its speaker cannot follow it up by explicitly stating a preference for the negation of the prejacent; the speaker cannot distance himself or herself from the imperative (Kaufmann 2012; Condoravdi and Lauer 2012). This impossibility of speaker distancing is illustrated for Slovenian in (31).

- (31) #Pojdi stran! Ampak nočem, da greš.
 go.IMP.(2) away but not.want.1 that go.2
 ‘Go away! But I don’t want you to go.’

¹³ Consider though that the function of plurality/duality is inherently different in inclusive and exclusive persons: inclusivity alone entails more than one individual, while exclusivity does not. Adding plural/dual number on top of inclusivity is thus essentially superfluous. I leave exploring the possible connection between this asymmetry and the differences in the availability of collective readings for future work.

¹⁴ This is far from the only parallelism though. As an anonymous reviewer notes, Condition B effects ameliorate with focus: *We don’t like John. But we (do) like [me]_F*! Focus also ameliorates obviation effects (Quer 2006), and this is seen in Slovenian as well, even for the matrix cases; e.g.: *Naj ne poje Janez. Naj ne poje Mojca. Naj pojem [jaz]_F*! (‘Janez shouldn’t sing. Mojca shouldn’t sing. [I]_F should sing!’).

As discussed in Stegovec and Kaufmann (2015) below, the distancing facts are different in Slovenian for embedded imperatives in speech reports. It is infelicitous to use an embedded imperative and to simultaneously report that the original speaker distanced himself or herself from the imperative, as shown in (32a). In contrast, distancing by the actual speaker does not result in infelicity, as shown in (32b).

- (32) a. #Rekel je_i, da pojdi stran in dodal da noče_i, da greš.
 said.M is that go.IMP.(2) away and added that not.want.3 that go.2
 ‘He said that you should go away and added that he doesn’t want you to.’
- b. Rekel je_i, da pojdi stran ampak nočem_i, da greš.
 said.M is that go.IMP.(2) away but not.want.1 that go.2
 ‘He said that you should go away, but I don’t want you to go.’

As shown by the examples in (33), the same pattern of speaker distancing asymmetries also arises with directive subjunctives. The two constructions therefore show parallel behavior beyond their common speech act function and the presence of obviation, which further justifies their treatment as a natural class of clauses.

- (33) a. #Naj grejo stran! Ampak nočem, da grejo.
 SBJV go.3PL away but not.want.1 that go.3PL
 ‘They should go away! But I don’t want them to go.’
- b. #Rekel je_i, da naj grejo stran in da noče_i, da grejo.
 said.M is that SBJV go.3PL away and that not.want.3 that go.3PL
 ‘He said that they should go away and that he doesn’t want them to go.’
- c. Rekel je, da naj grejo stran ampak nočem, da grejo.
 said.M is that SBJV go.3PL away but not.want.1 that go.3PL
 ‘He said that they should go away, but I don’t want them to go.’

What we see in (31), (32), and (33), in other words, is that the public commitment to wanting to make the prejacent true is tied to the actual speaker in matrix directives and to the original speaker in embedded directives. The same matrix/embedded asymmetry is observed with obviation, where the coreference ban holds between the actual speaker and the subject in matrix directives and between the original speaker and the subject in embedded directives. I propose that this parallelism is no coincidence.

Specifically, I propose that the *director*—the individual which is the locus of public commitments associated with directives—is syntactically encoded in directives in the form of a “perspectival PRO”. This null pronoun exists to satisfy a semantic requirement of a directive modal operator (OP_{Dir}), yielding the structure in (34).

- (34) [CP C [MoodP PRO [Mood’ OP_{Dir} ... [vP pro_{SU} [v’ v [VP V [...]]]]]]]

The pronoun, which denotes the actual speaker in matrix contexts and the original speaker in embedded ones, counts as a local antecedent to the subject for the purposes of Condition B. The special semantic profile of directives therefore partly also shapes their syntax, indirectly causing the syntactic obviation effect. I proceed to lay out the analysis in more detail in the following sections.

3 Getting our perspective under control

The analysis presented here is designed with the goal of unifying obviation across matrix and embedded contexts while simultaneously deriving some of the unique semantic properties of directives. The starting point here is Quer (1998, 2001), who suggests that the semantics of subjunctives involves a shift in the model of evaluation of the proposition, where truth is relativized to models within a context and to individuals (see Farkas 1992b; Giannakidou 1998 for related ideas). In matrix contexts, the individual anchor is the speaker and the relevant model is the epistemic model of the speaker; the world in which the proposition is assigned a truth value is the actual world according to the speaker. Similarly, in embedded contexts the individual anchor is the matrix subject. My main point of departure is that the anchoring is instantiated representationally. The proposed directive operator (OP_{Dir})—the locus of directive semantics—has a semantic requirement which is satisfied when it combines with an individual type element, a *perspectival PRO* (henceforth PRO_{pers}); the pronoun serves as the aforementioned individual anchor. PRO_{pers} is bound analogously to subject PRO in obligatory control constructions (see Chierchia 1987; Pearson 2012, 2016), and counts crucially as a potential antecedent for the purposes of Condition B.

On top of this, the analysis assumes the modal analysis of imperatives of Schwager (2006), Kaufmann (2012), but with a further refinement: the difference between plain modal constructions used as directive speech acts and true directives is that only the latter involve PRO_{pers} as a grammaticalized representation of the source of the directive speech act. The refinement is meant to capture Quer's view of subjunctives in contrast to plain modals. Of course, the analysis of imperatives I adopt here is not the only one on the market. There have been a number of influential alternative proposals recently (see e.g. Portner 2007; Condoravdi and Lauer 2012; von Stechow and Iatridou 2017), and it may be that they can be adapted to capture the relevant facts just as well. What I set out to show is only that the facts can be straightforwardly explained with very minor modifications of Kaufmann's approach.

If the generalized obviation in Slovenian directives is, as I suggested, underlyingly the same phenomenon as the canonical cases of obviation, then my analysis should be extendable to the latter cases as well. However, not all embedded subjunctive clauses show the obviation effect, even in languages where obviation is otherwise observed (see Ruwet 1984, 1991; Kempchinsky 1986, 2009; Farkas 1992a). I will suggest that this language-internal variation between obviating and non-obviating subjunctives boils down to the choice of mood operator. Crucially, directives are the core case of obviating subjunctives; that is, if a language has an obviating subjunctive it will be a directive one (Kempchinsky 2009). This is why it is important to first establish the core case by motivating the proposed semantics for directives.

3.1 Performative modals

It is important for my analysis of directives that directive semantics is identified with an element present in the syntax. This prerequisite is met with the *performative modal* approach to imperatives (see also Lewis 1979b) as developed by Schwager (2006),

Kaufmann (2012), which I will discuss briefly before modifying it for the present purposes. This particular approach is built around the observation that modal verb constructions can be used performatively just like imperatives. A modal construction can either have a descriptive reading, as in (35), or can be used performatively, as in (36). The modal construction in (36a) invokes an obligation for the addressee to call the speaker, while the one in (36b) is a permission for the addressee to come at 11 o'clock.

- (35) a. You should do the shopping today (as far as I know).
 b. Peter may come tomorrow. (The hostess said it was no problem.)
- (36) a. You must call me!
 b. Okay, you may come at 11. (Are you satisfied now?) (Kaufmann 2012: 58)

Furthermore, both modals used performatively (37a) and imperatives (37b) disallow the speaker to express disbelief that the action described by the verb will take place.

- (37) a. Sam must go to confession (#but he is not going to). (Ninan 2005: 150)
 b. Go to confession (#but I know you won't go). (Kaufmann 2012: 58)

Kaufmann concludes that at the level of at-issue content, imperatives are equivalent to modal declaratives. The differences between them arise due to specific presuppositions triggered only with imperatives. This view is summarized in (38).

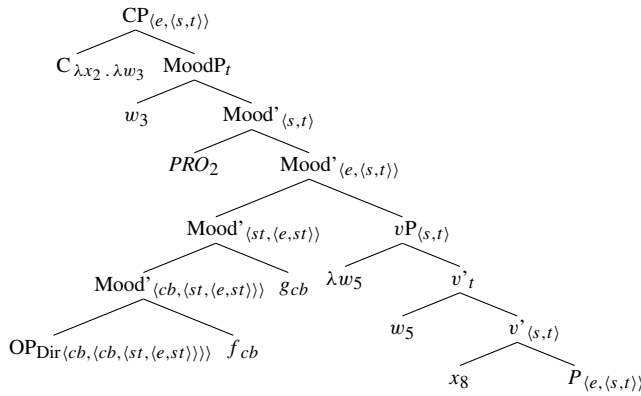
- (38) *Imperative Semantics*
 An imperative of the form '(SUBJECT) ϕ !' denotes the same object as 'SUBJECT/you should ϕ ' with performative *should*. (Kaufmann 2012: 60)

The result is that modal verbs only give rise to performative effects in contexts where the conditions for performativity arise. Conversely, imperatives—though denoting the same object as their modal declarative equivalents—have an additional presuppositional meaning component that restricts their felicitous use to contexts where their modal declarative equivalents can be used performatively. The details regarding the presuppositional component are orthogonal to my main topic, so I do not discuss them in detail here. I focus instead on the semantics of the modal component of directives as a superset of imperatives, and depart from Kaufmann (2012) by arguing that modal declaratives and directives show differences beyond the presuppositional component, and that precisely those differences give rise to generalized obviation with the latter.

3.2 Grammaticalizing the point of view

For Kaufmann (2012), a modal operator (OP_{Imp}), equivalent in its at-issue content to a necessity modal, is present in every imperative clause and syntactically sits somewhere in the clause's Mood domain. Taking this as a starting point, I propose that all directive clauses underlyingly have the structure given in (39), to be elaborated on below.

(39)



The crucial difference from Kaufmann’s analysis is the PRO_{pers} element sitting in SpecMoodP, which is variable bound through lambda abstraction analogously to PRO in control infinitives (cf. Chierchia 1987; Pearson 2012, 2016);¹⁵ I discuss this mechanism in more detail below. Silent perspectival pronouns or other syntactic means of encoding perspective have been invoked before—mainly in analyses of logophors or long-distance anaphora (see Bianchi 2001, 2003; Speas and Tenny 2003; Speas 2004; Baker 2008; Sundaresan 2012), but here I argue explicitly for a semantically bound PRO , whose presence satisfies a semantic requirement of OP_{Dir} . Specifically, I propose that the result of combining OP_{Dir} with Kratzerian conversational backgrounds (i.e. the modal base (f_{cb}) and ordering source (g_{cb}), elaborated on below) is of type $\langle st, \langle e, st \rangle \rangle$, which makes it first combine with a proposition (type $\langle s, t \rangle$) and subsequently with PRO_{pers} (type e).¹⁶ As we will see later in Sect. 3.3, the difference in semantic type between regular modals and the more complex OP_{Dir} is semantically motivated. However, in order to better understand the proposed split between the two kinds of modal elements, let us first establish the necessary assumptions concerning the semantics of modals which both Kaufmann’s and my analysis rest on.

I follow the standard assumption that modal verbs are quantifiers over possible worlds that combine with propositions. More importantly, I follow Kratzer (1981) (cf. Kratzer 1991, 2012) in assuming that the meaning of modals depends on conversational backgrounds—functions from worlds to sets of propositions (type $\langle s, \langle st, t \rangle \rangle$, simplified as cb). The first of two conversational backgrounds is the modal base, which yields a (necessarily consistent) body of information, and the second is the ordering source, which induces an ordering amongst the worlds that comply with the modal base (and is possibly inconsistent). In practice, the modal base specifies the contextually salient relevant facts, while the ordering source specifies the criteria for comparing worlds compatible with those facts.

Like Kaufmann (2012), I deal only with finite ordering sources, so I employ simplified denotations for modals drawing on the *Limit Assumption* of Lewis (1973)

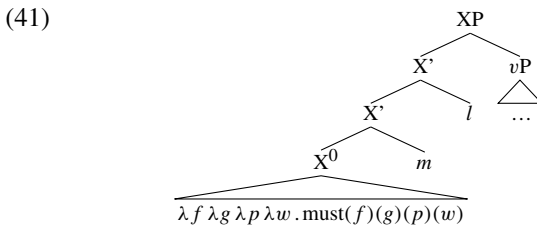
¹⁵ I follow Pearson (2012, 2016) in assuming that all clauses (embedded and matrix) are properties ($\langle e, \langle s, t \rangle \rangle$), as opposed to propositions ($\langle s, t \rangle$) (see Stojanovic 2012; Pearson 2012, 2013 for arguments). This assumption will play an important role in the analysis of matrix directive clauses in Sect. 3.4. Pending that, matrix-level CPs are presented as propositions for the sake of a simpler exposition.

¹⁶ I ignore the issue of tense throughout, as it is orthogonal to the obviation effect.

(cf. Kaufmann and Kaufmann 2015: 283 for a formulation in a Kratzer-style framework). I assume the semantics for the necessity modal ‘*must*’ in (40). Necessity is encoded as universal quantification over possible worlds, where $O(f, g, w)$ relativizes the set of worlds, namely the ones that are compatible with f and optimal with respect to g .

- (40) $\llbracket \textit{must} \rrbracket^c = \lambda f . \lambda g . \lambda p . \lambda w . (\forall v \in O(w, f, g))[p(v)]$
- f is the modal base (the body of information);
 - g is the ordering source (criteria for comparing worlds compliant with f);
 - $O(w, f, g)$ is defined as the set of worlds conforming to f at w (i.e., in $\bigcap f(w)$) that are the best according to g at w .

Concerning how f and g come to combine with the modal, the most straightforward assumption is that they are introduced essentially as covert pronouns. As with referential pronouns, which are free variables, the value of a conversational background must also be supplied by the utterance context. ‘*Must*’ in (40) is type $\langle cb, \langle cb, \langle st, st \rangle \rangle$, so it requires two conversational backgrounds. As shown in (41) using a simplified entry for ‘*must*’, the modal has to first combine with a modal base m , then with an ordering source l , and only then with the proposition p expressed by vP .



Kaufmann’s entry for OP_{Imp} is identical to that of ‘*must*’ above; all differences between the two are relegated to the presuppositional component of OP_{Imp} .¹⁷

- (42) $\llbracket \text{OP}_{\text{Imp}} \rrbracket^c = \lambda f . \lambda g . \lambda p . \lambda w . (\forall w' \in O(f, g, w))[p(w')]$
(Kaufmann 2012: 86)

If directives are underlyingly just plain modals—as this analysis suggests—the obviation effect (absent with modal verbs) must be attributed to an independent property of directives, possibly a purely syntactic one. But this leaves unexplained why obviation constructions are crosslinguistically those associated with a particular semantics, directives being the prototypical case (Kempchinsky 2009). Furthermore, the speaker distancing facts then have to be explained as an entirely separate phenomenon.

Kaufmann attributes the ban on speaker distancing to the presuppositions associated with OP_{Imp} , specifically a presupposition ensuring that the modal ordering source is one both the speaker and the addressee consider relevant and which the speaker endorses (see Kaufmann 2012: Sect. 4.3.2). This means that in order to capture the differences we observed between speaker distancing in matrix and embedded contexts,

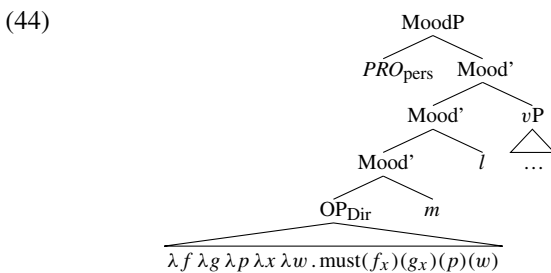
¹⁷ This is her preliminary version of OP_{Imp} . Her final version also takes into account temporal variables. As noted above, I ignore issues of tense in relation to the semantics of imperatives in this paper.

one must allow for the presupposition to be relativized either to the actual context (in matrix directives) or the original context (in embedded directives); this is roughly the approach taken in Stegovec and Kaufmann (2015). However, this forces us to treat the fact that obviation differs between matrix and embedded clauses along exactly the same lines as purely coincidental. If it can be made to work, an analysis that cashes in on the parallelism should be preferred over one that has to appeal to coincidence. I will argue below that such a unified analysis is indeed possible.

As a departure from Kaufmann, I propose that modal verbs and directives are minimally semantically distinct at the level of at-issue semantics, with consequences in their syntax. The directive operator (OP_{Dir}), given in (43), has to combine with *centered conversational backgrounds*—a type of conversational background further restricted in relation to an individual of type e . These are functions from individuals to regular Kratzerian conversational backgrounds (type $\langle e, cb \rangle$).

- (43) $[[OP_{Dir}]^c = \lambda f . \lambda g . \lambda p . \lambda x . \lambda w . (\forall w' \in O(f_x, g_x, w))[p(w')]$
 a. f_x is the body of information available to x in w ;
 b. g_x are criteria to decide between worlds compliant with f_x endorsed by x .

While conversational backgrounds normally specify the *contextually salient* relevant information and criteria for deciding between worlds, centered conversational backgrounds are semantically restricted to depend on an individual. The idea is similar to Kaufmann’s presuppositions, the difference being that the restriction is part of the at-issue semantics of OP_{Dir} and that the relevant individual is not pre-specified—this will play a key role later on. As a result of its more complex type, OP_{Dir} must first combine with the conversational backgrounds (m, l), then the relevant propositional content (vP), and finally an individual-denoting element (PRO_{pers}), as shown in (44).



The proposed OP_{Dir} thus differs from plain necessity modals in that it must take an individual argument. The function of this argument, embodied by PRO_{pers} , is to encode the source of the directive, i.e. the director: the actual speaker in matrix directives and the original speaker in embedded directives. The interpretation of PRO_{pers} in matrix directives requires some elaboration, which will be provided in Sect. 3.4. Pending that, we make due with the stipulation that PRO_{pers} in matrix clauses always refers to the speaker of the utterance. In the case of embedded directives, however, we can derive the denotation of PRO_{pers} using a fairly standard semantic account of control.

I adopt here the general approach of Pearson (2012, 2016) (building on work by Heim 2002; von Stechow 2003, 2004), where PRO is bound via a lambda abstractor

in C (hinted at already in (39)). The derivation of a baseline infinitival control configuration like (45) below is illustrated in (46). Although it is not a control verb in English, I use the attitude verb ‘believe’ in (45)/(46) for ease of exposition—the intention here is to capture the semantics of ‘believe’ in languages where it is a control verb (e.g. Italian, French, and German). The crucial thing to note about this type of analysis is that control is analyzed as involving self-ascription of a property (see also Lewis 1979a; Chierchia 1987; and footnote 15 above), which will play a key role here.

(45) John believes to be famous.

- (46) $\llbracket \text{believe} \rrbracket^{c,g} = \lambda P_{\langle e, \langle s, t \rangle \rangle} \lambda x \lambda w . \forall \langle w', y \rangle [\langle w', y \rangle \in \text{Dox}_{x,w} \rightarrow P(y)(w')]$
- $[\text{CP}_1 \lambda w_1 [w_1 \text{ John believes } [\text{CP}_2 \lambda x_2 \lambda w_3 [\text{TP } w_3 \text{ PRO}_2 \text{ to be famous}]]]]$
 - $\llbracket \text{CP}_2 \rrbracket^{c,g} = \lambda x \lambda w . x \text{ is famous in } w$
 - $\llbracket \text{CP}_1 \rrbracket^{c,g} = \lambda w . \forall \langle w', y \rangle [\langle w', y \rangle \in \text{Dox}_{\text{John},w} \rightarrow y \text{ is famous in } w']$
(based on Pearson 2016: 697)

An important feature of this approach is that there is no binding per se between the subject of the attitude verb and *PRO*. The attitude verb itself binds *PRO*. In (45)/(46), ‘believe’ takes as its first argument a property, and it functions as a universal quantifier over doxastic alternatives (see Lewis 1979a; Chierchia 1987):

(47) *Doxastic alternatives*

$\text{Dox}_{x,w} = \{ \langle w', y \rangle : \text{it is compatible with what } x \text{ believes in } w \text{ for } x \text{ to be } y \text{ in } w' \}$

Returning to (46), we see that the quantification of ‘believe’ over the set of doxastic alternatives ultimately results in the attitude holder self-identifying as an individual who has the property of being famous. The result is that the subject of the infinitive ranges over the individuals that John identifies with. For now, self-identification will be seen as equivalent to coreference for expository purposes (pending Sect. 3.5). With that, the subject of the attitude verb (John) and the subject of the infinitive (*PRO*) come out as coreferential. This is possible because of the lambda abstractors introduced in the left periphery in the C of CP2 (cf. (46a)); the abstractor over individuals (λx_2) and the subject of CP2 (*PRO*₂) must be coindexed in obligatory control constructions.¹⁸

Thanks to abstraction over *PRO*_{pers}, a directive clause denotes a property in the current analysis (cf. (39)). The derivation for infinitives can thus be straightforwardly transposed to directives. This is exemplified with an embedded imperative in (48) (meant to correspond to a Slovenian embedded imperative) and its derivation in (49).

(48) *John said that leave*._{IMP} (roughly: ‘John said that you should leave.’)

- (49) $\llbracket \text{say} \rrbracket^{c,g} = \lambda P_{\langle e, \langle s, t \rangle \rangle} \lambda x \lambda w . \forall \langle w', y \rangle [\langle w', y \rangle \in \text{Say}_{x,w} \rightarrow P(y)(w')]$
 $\text{Say}_{x,w} = \{ \langle w', y \rangle : \text{it is compatible with what } x \text{ says in } w \text{ for } x \text{ to be } y \text{ in } w \}$

¹⁸ It is important that *PRO* is a variable which is always coindexed with the abstractor over individuals located in C, so that *PRO* is obligatorily interpreted as *de se* (see Sect. 3.5); see Heim (2002), von Stechow (2003, 2004), Pearson (2012) for different ways of ensuring this.

- a. $[[CP_1 \lambda w_1 [w_1 \text{ John says } [CP_2 \lambda x_2 \lambda w_3 [w_3 \text{ PRO}_2 \text{ OP}_{f_2, g_2} [\lambda w_4 w_4 \text{ you leave }]]]]]]$
- b. $[[CP_2]]^{c, g} = \lambda x \lambda w . (\forall w' \in O(f_x, g_x, w)) [ad(c) \text{ leaves in } w']$
- c. $[[CP_1]]^{c, g} = \lambda w . \forall \langle w', y \rangle [\langle w', y \rangle \in \text{Say}_{John, w} \rightarrow (\forall w'' \in O(f_y, g_y, w)) [ad(c) \text{ leaves in } w'']]]$

The derivation in (49) is largely parallel to (46), the main differences being that *PRO* and the embedded subject are not the same individual (cf. (49a)), and that the attitude verb quantifies over a set of speech act alternatives ($\text{Say}_{x,w}$; see Pearson 2016). The subject of the embedded clause is a free variable with 2P features ($ad(c) =$ addressee in context c), while PRO_{pers} is the individual that the matrix subject (John) self-identifies with.¹⁹ OP_{Dir} combines with the proposition expressed by vP and yields a property that combines with PRO_{pers} and a world variable. The lambda abstractors in C then make the clause a property again, resulting in the CP2 illustrated in (49b). By the semantics of OP_{Dir} (cf. (43)), the centered conversational backgrounds are interpreted relative to the referent of PRO_{pers} . The lambda abstractors introduced in C then ensure that the subject of the attitude verb (John) self-identifies with PRO_{pers} in the embedded clause, and consequently, with the bound variable components of f_x and g_x .²⁰

The main accomplishments of the perspectival control analysis are these: (i) we can reuse familiar semantic building blocks and machinery with minimal new assumptions, and more importantly, (ii) we correctly predict that the modal component of embedded directives is always anchored to the matrix subject. And while the identification of PRO_{pers} with the speaker in matrix directives is merely stipulated for now, it too can be derived from an independent proposal by Pearson (2012). What is important at this point is that nothing in the semantics regulates the choice of the subject. Restrictions will only arise in the syntax, as an indirect consequence of OP_{Dir} 's semantic requirements.

¹⁹ An anonymous reviewer asks if directives can occur with object control predicates like ‘persuade’, where the matrix object is the attitude holder (Stephenson 2010), which means that my analysis predicts object obviation to arise in these cases (rather than subject obviation). In Slovenian the verbs that take infinitival complements do not take directive complements (see Sect. 4.2), so we cannot test this with the usual object control verbs. But there is a case that fits the description—directives embedded under ‘ask’—where the coreference restriction applies only between the embedded subject and the matrix object: *Marko_i ga_k je vprašal, če naj pride_{i, *k}* (‘Marko_i asked him_k if he_{i, *k} should come’). Imperatives embedded under ‘ask’ are somewhat degraded due to syntactic factors independent of obviation, but object-subject coreference is nevertheless perceived as worse than subject-subject coreference. Due to this additional complication with imperatives, and for reasons of space, I set this discussion aside for the remainder of the paper, but the findings seem to support the proposed analysis.

²⁰ For attitude verbs that, unlike ‘say’, have modal content (e.g. ‘order’), a doubling of modality arises ($V_{\text{ATT}} + \text{OP}_{\text{Dir}}$) (cf. Portner 1997). A way around this is to follow recent work by Angelika Kratzer, which suggests that embedding attitude verbs only describe events of different types, while the modal component is located in the left periphery of the embedded clause (Kratzer 2013). This is needed independently to explain other instances of doubled modality, like *Ralph advised that Orcutt should turn himself in*. An analysis of embedded directives in these terms strikes me as promising, given that in Slovenian any embedding verb that can be construed as a verb of communication can take a directive complement.

3.3 Deriving generalized obviation and the distancing ban shift

A desirable consequence of the proposed analysis is that obviation can be reduced to the interaction of control with Condition B, effectively paralleling Condition B effects in control infinitives, where an object pronoun cannot be coreferential with the matrix subject, as in (50a) (cf. the object anaphor in (50b)).²¹

- (50) a. *He promised [λ_i [PRO_i to shave him_{*i*}]]
 b. He promised [λ_i [PRO_i to shave himself_{*i*}]]

As with obviation, arguments in distinct binding domains appear to interact with each other with respect to Condition B. Note that the coreference restriction applies within a single binding domain between the object pronoun and PRO .

The idea is that in directives the relation between the subject PRO and the object pronoun in (50a) is paralleled by the relation between PRO_{pers} and subject pronoun (a silent *pro*).²² This is illustrated with the contrast between (51a) and (51b). Just as in the infinitival examples, PRO_{pers} acts as a proxy for the matrix subject inside the binding domain of the embedded subject (elaborated on below).²³

- (51) a. *He said [λ_i that [PRO_i *pro*_{*i*} leave!]]
 b. He said [λ_i that [PRO_i *pro*_{*k*} leave!]]

The analysis also straightforwardly captures the matrix obviation facts. Since PRO_{pers} in matrix clauses (generally) denotes the actual speaker ($sp(c)$), the subject pronoun cannot be 1P (SG/excl.), due to Condition B (cf. (52a)), but it may have any other person value that does not yield a denotation coreferential with PRO_{pers} (cf. (52b)).

- (52) a. *[$PRO_{sp(c)}$ *pro*_{*sp(c)*} Leave!] 1P.SG subject
 b. [$PRO_{sp(c)}$ *pro*_{*k, ad(c)*} Leave!] 3P/2P.SG subject

In Sect. 3.4, we will see that the denotation of matrix PRO_{pers} is not rigid: it can change under the right conditions, and the obviation facts change accordingly. This will provide further evidence for the current analysis, linking it to an existing theory on the semantics of matrix clauses. The theory can then be simplified by dispensing with the stipulation that a matrix PRO_{pers} must denote the actual speaker.

Recall that only subjects of directives fall under the coreference restriction. I propose that this results from subjects—but not objects—simultaneously being part of two

²¹ As I noted in Sect. 2.3, the idea that obviation is a type of Condition B effect is not new. What is new here is the link to Condition B in control infinitives. In Sect. 4.1, I briefly discuss a popular alternative Condition B analysis of obviation and show where it falls short in comparison to the present approach.

²² This analysis is somewhat similar to those of Kempchinsky (1986, 2009) and Bianchi (2001), which attribute obviation to the presence of a special operator/functional head within the appropriate syntactic domain. The difference is that, unlike those accounts, mine does not require any binding principles distinct from Condition B or the assumption that the operator itself functions as the antecedent.

²³ A configuration comparable to (50b), where PRO would bind a subject anaphor, is unavailable in Slovenian directives due to the lack of subject anaphors. This could be attributed either to: (i) the *anaphor agreement effect* (Rizzi 1990; Woolford 1999), i.e. anaphora being absent in contexts that trigger agreement on the verb (in Slovenian, the subject must agree with the verb); or (ii) the fact that Slovenian categorically lacks nominative anaphoric and reciprocal elements.

binding domains. The first domain (henceforth D1), illustrated in (53a), more or less fits the traditional conception of a binding domain for Condition B, as it encompasses all the argument positions of a clause and thus captures all the canonical binding effects between subjects and objects. The second domain (henceforth D2), illustrated in (53b), is a newly added component of the proposal.

- (53) a. $[\text{CP that } [\text{MoodP } PRO_i \text{ } [\text{Mood}' \text{ OP}_{\text{Dir}} \left([{}_{\text{vP}} \text{ } pro_{*k} \text{ } [{}_{\text{v}'} \text{ shave him}_{*k} \text{ }]] \right)]]]]_{\text{D1}}$
 b. $\left([\text{CP that } [\text{MoodP } PRO_{*i} \text{ } [\text{Mood}' \text{ OP}_{\text{Dir}} [{}_{\text{vP}} \text{ } pro_{*i} \text{ }]]]] \right)_{\text{D2}} [{}_{\text{v}'} \text{ shave him}_k \text{ }]]]]$

D2 includes the subject and PRO_{pers} , which is crucial for obviation. Since the internal arguments are all introduced outside D2, they do not take part in obviation.²⁴ The two domains are not arbitrary: D1 corresponds to Chomsky’s (2000; 2001) vP phase, and D2 to his CP phase including the “edge” of the vP phase—in most versions of phase theory accessible to both phases. Phase-based locality can therefore be extended to Condition B, highlighting the exceptionality of the external argument position as part of both domains and getting the right results with respect to obviation.²⁵

At this point the sole purpose of OP_{Dir} may appear to be causing obviation in the syntax, but remember that the ban on speaker distancing parallels obviation across matrix and embedded contexts. The examples illustrating the ban with matrix (31) and embedded imperatives (32a) are repeated here as (54a) and (54b) respectively.

- (54) a. #Pojdi stran! Ampak nočem, da greš.
 go.IMP.(2) away but not.want.1 that go.2
 ‘Go away! But I don’t want you to go.’
 b. #Rekel je_i, da pojdi stran in da noče_i, da greš.
 said.M is that go.IMP.(2) away and that not.want.3 that go.2
 ‘He said that you should go away and that he doesn’t want you to go.’
 c. Rekel je, da pojdi stran ampak nočem, da greš.
 said.M is that go.IMP.(2) away but not.want.1 that go.2
 ‘He said that you should go away, but I don’t want you to go.’

In matrix clauses the ban manifests itself as the impossibility for the speaker of the directive to distance himself or herself from the directive speech act (cf. (54a)).

²⁴ These arguments can in principle move at least as high as SpecvP and thus into D2, which complicates the picture. One reason why this does not affect binding could be that the movement is always focus related. Focus ameliorates obviation violations (Quer 2006 and footnote 14), and binding violations more generally (Eckardt 2002; Despić 2011, 2013; Charnavel 2015). However, this does not easily extend to object clitics, which probably also move at least as high as SpecvP and are typically not focused. Another possibility is to invoke the A/A’-movement split, where only the former creates new binding possibilities. If movement to subject (SpecTP) is the only kind of A-movement that moves arguments from D1 to D2 (e.g. passivization), then all other instances of D1 to D2 movement are A’-movement and therefore not a problem. I leave the best analysis to be determined in future work; but it should be noted that these complications arise with virtually all movement-binding interactions and are not specific to the current analysis.

²⁵ An anonymous reviewer notes that the binding domains as characterized in (53) do not seem to be compatible with approaches to logophoric anaphors à la Sundaresan (2012), where a perspectival element (similar to PRO_{pers}) in the left periphery can bind the anaphor in the object position within vP. The idea that the binding domain for Condition A is larger than the domain for Condition B is not an uncommon position, going back to Chomsky (1981) (see also Büring 2005: 47–58 for discussion). In order to accommodate for this analysis of logophoric anaphors, the domain for Condition A would need to span the whole CP. It needs to be checked, though, if this makes the right predictions in relation to other types of Condition A effects.

In embedded directive clauses, the ban instead applies to the matrix subject, as reporting is infelicitous if the original speaker's act of distancing is also reported (cf. (54b)). Crucially, the actual speaker may freely distance himself or herself from the directing act (cf. (54c)).

The distancing restriction, and the matrix/embedded asymmetry, can be straightforwardly accounted for by the semantics proposed for OP_{Dir} , repeated here in (55).

- (55) $[[OP_{Dir}]^c = \lambda f . \lambda g . \lambda p . \lambda x . \lambda w . (\forall w' \in O(f_x, g_x, w))[p(w')]$
- a. f_x is the body of information available to x ;
 - b. g_x are criteria to decide between worlds compliant with f_x endorsed by x .

The ordering source here crucially refers to the “criteria [...] endorsed by x ”, which means not only that the ordering source is relativized with respect to the individual x , but that uttering the directive adds this to the individual's public commitments. Given the analysis outlined above, x is always identified with PRO_{pers} : in matrix contexts, x in g_x is the individual the speaker self-identifies with, and in embedded contexts, x in g_x is the individual the matrix subject identifies with.

This means that the criteria which restrict the worlds that the modal operator quantifies over are always publicly endorsed by the director, encoded by PRO_{pers} . In this analysis, the infelicity of speaker distancing results from the directive speech act being a public endorsement of an ordering source by the director, while distancing is an attempt by the director to negate the endorsement of that same ordering source.

However, the ban on distancing is not limited only to directives as defined in this paper. It arises also when modal verb constructions are used performatively (see Kaufmann 2012; Condoravdi and Lauer 2012). But there is a clear contrast between these and directives as to whether speaker distancing can be coerced or not. Consider the examples in (56).²⁶ The imperative in (56a) does not allow distancing even though the recipe is primed as a salient body of information. The modal construction in (56b), in contrast, bans distancing only under a performative modal reading.²⁷

- (56) a. According to the recipe, put in the peppers now.
#But I don't think that you should do that.
- b. According to the recipe, you have to put in the peppers now.
(#)But I don't think that you should do that.

I take the contrast to mean that simple modals *can* express speaker endorsement of an ordering source with the right conditions, while directive operators *must* express it. This basically parallels the pronoun/anaphor split: pronouns *can* be bound under the right conditions, but anaphora *must* be bound—which is not coincidental, given the role that control plays in the proposed analysis of directives. It is conceivable that the endorsement component itself is a prerequisite for performativity in all modal elements and that the differences between them arise solely from whether the individual variable

²⁶ See also Condoravdi and Lauer (2017: 191) for examples and discussion of a similar contrast between modal verbs and imperatives in the context of “speaker disinterested advice”.

²⁷ Despite not being a part of (North American) colloquial English, constructions with deontic ‘*must*’ seem to yield the same asymmetry. This seems to go against the claim made by Ninan (2005) that deontic ‘*must*’ is always interpreted performatively in English when occurring in a matrix clause.

of a modal must be bound or not, but I leave this possibility open for future exploration (see Kaufmann 2012; Condoravdi and Lauer 2012, 2017; Lauer 2015; Oikonomou 2016 for more conventional approaches to performativity in modals).

Further evidence showing that the endorsement component is hard-coded into directives comes from the embedding asymmetry in Slovenian. In (57) and (58) (assuming a scenario similar to (56)), *A* is chopping onions and asks *B*: ‘How should the onion be chopped?’ *B* may reply with (57a), a matrix directive clause, or (58a), a construction with an embedded directive clause. Note that (57a) cannot be felicitously followed up with a distancing act, as seen in (57b), whereas (58a) can, as seen in (58b).

- (57) a. Čebula naj bo drobno sesekljana ...
 onion SBIV will.be.3 finely chopped.F
 ‘The onion should be finely chopped ...’
 b. #... ampak nočem, da je drobno sesekljana.
 but not.want.1 that is finely chopped.F
 ‘... but I don’t want it to be finely chopped.’
- (58) a. Recept pravi, da naj bo čebula drobno sesekljana ...
 recipe say.3 that SBIV will.be.3 onion finely chopped.F
 ‘The recipe says that the onion should be finely chopped ...’
 b. ... ampak nočem, da je drobno sesekljana.
 but not.want.1 that is finely chopped.F
 ‘... but I don’t want it to be finely chopped.’

The infelicity of (57b) shows that the speaker, as the director, has endorsed the recipe or another set of instructions as a relevant body of information.²⁸ In contrast, the possibility of distancing in (58b) reveals that the recipe itself counts as the director. An inanimate abstract entity can count as the source of the directive speech act, even though pragmatically this does not make much sense. Under the current approach, this fact follows from the semantics of OP_{Dir} and how it relates to PRO_{pers} . It is unclear how the same facts could be captured by a purely pragmatic account.

In sum, the requirement of OP_{Dir} to combine with PRO_{pers} (in conjunction with an appropriate theory of control) can cause obviation in the syntax and yields the speaker distancing ban at the level of interpretation. In the case of obviation, the proposed analysis offers a simple solution to the problem of how to characterize the binding domain in directives: binding domains are the same across all clauses; it is the configuration of potential antecedents that is different in directives. Similarly, in the case of speaker distancing, the analysis captures the exceptionality of directive clauses: the ban does not arise only from the illocutionary force of a directive speech act; instead it follows from the specialized semantics of the proposed modal OP_{Dir} .²⁹

²⁸ Unfortunately, examples parallel to the English ones with adverbials in (56) are marginal in Slovenian with matrix directive clauses, for unknown reasons. To the extent that marginal examples can be compared to the grammatical (57a) and (58a) in terms of the distancing ban, they seem to pattern with (57a) and do not allow distancing, as predicted. I leave open why the examples are only marginally acceptable.

²⁹ Although tense was not discussed, it has a key role in directives (Kaufmann 2012: Sect. 3.2.2) and infinitives (Pearson 2016). It appears that the matrix subject must self-identify as the embedded PRO_{pers} with respect to the time of the original utterance. The equivalent of *I said that leave.IMP, but now I don’t*

Recall that in many languages, subjunctive clauses other than those used as directives show obviation effects. Whether or not a subjunctive does or does not yield obviation usually depends on its meaning and function (Kempchinsky 1986, 2009; Farkas 1992a). Note that the proposal outlined above actually leaves room for extensions beyond directives (some of them discussed in Sect. 5 below). The key component of the analysis is the obligatory centering of the directive modal operator to an individual—the modal flavor is not relevant. Thus, nothing precludes this type of modal operator from existing for other modal flavors, paralleling the variation found with regular modal verbs.³⁰ Although exploring this possibility in any real detail is beyond the scope of this paper, the prediction is clear: if the proposed analysis of obviation is applicable to all other cases of obviation outside directives, then we also expect these constructions to show the same behavior with respect to speaker endorsement.

3.4 Matrix directives and the interrogative perspective shift

Up until now, I stipulated that *PRO*_{pers} in matrix directives consistently refers to the speaker of the utterance. I showed that this derives the impossibility of (exclusive) 1P subjects in matrix directives as an instance of a Condition B violation between *PRO*_{pers} and the subject. The contrast this aims to explain is repeated in (59), with the ungrammatical 1P subjunctive in (59a) and the grammatical 2P imperative in (59b).

- (59) a. *Naj si pomagam!
 SBJV REFL.DAT help.1
 int.: ‘I should help myself.’
 b. Pomagaj si!
 help.IMP.(2) REFL.DAT
 ‘Help yourself!’

But this is not the only pattern in matrix directives. In questions, (exclusive) 1P subjects are allowed, as shown in (60a) for a polar question and (60b) for a constituent one.

- (60) a. Naj si pomagam?
 SBJV REFL.DAT help.1
 ‘Should I help myself?’
 b. Komu naj pomagam?
 who.DAT SBJV help.1
 ‘Who should I help?’

This does not mean, however, that in matrix questions subjects can vary freely. Consider (61a) and (61b), the 2P imperative counterparts of the examples seen in (60).

Footnote 29 continued

want you to is fine in Slovenian, indicating that it is the *original context speaker* that self-identifies with *PRO*_{pers}, not the *actual context speaker*, despite these being the same individual. This may relate to similar constraints with (partial) control infinitives (see Pearson 2016), but I leave the details to be worked out by a future me.

³⁰ The question arises, though, why the same subjunctive verb forms may be used with these different flavors and may even involve either a modal operator that yields obviation or one that does not. I suspect this may have to do with the subjunctive typically being an underspecified form, as discussed by Schlenker (2005a). However, whereas Schlenker argues that the underspecification is purely semantic, there are cases where an analysis in terms of morphological underspecification fares better; e.g. when semantic differences between subjunctives are accompanied by additional syntactic differences (as with the Slovenian non-obviating subjunctives mentioned in footnote 10), which a purely semantic approach cannot capture.

Table 3 Baseline pattern of matrix obviation in Slovenian

'pomagati' (to help)	singular	dual	plural
1P (= excl.)	* naj pomag-a-m	* naj pomag-a-va	* naj pomag-a-mo
1+2P (= incl.)	IMPOSSIBLE	pomag-a-j-va	pomag-a-j-mo
2P	pomag-a-j	pomag-a-j-ta	pomag-a-j-te
3P	naj pomag-a	naj pomag-a-ta	naj pomag-a-jo

Table 4 Interrogative pattern of matrix obviation in Slovenian

'pomagati' (to help)	singular	dual	plural
1P (= excl.)	naj pomag-a-m	naj pomag-a-va	naj pomag-a-mo
1+2P (= incl.)	IMPOSSIBLE	*pomag-a-j-va	*pomag-a-j-mo
2P	*pomag-a-j	*pomag-a-j-ta	*pomag-a-j-te
3P	naj pomag-a	naj pomag-a-ta	naj pomag-a-jo

- (61) a. *Pomagaj si?
 help.IMP.(2) REFL.DAT
 int.: 'Should you help yourself?'
 b. *Komu pomagaj?
 who.DAT help.IMP.(2)
 int.: 'Who should you help?'

Imperatives are absent in questions and they exist only for 2P and inclusive 1P subjects—those whose denotation always includes the addressee. In contrast, subjunctives are possible in questions and they are used for all other subjects—those whose denotation always excludes the addressee (this is summarized in Tables 3, 4).

Looking at both patterns in terms of obviation is revealing here: the default pattern shows a gap with subjects that refer to the speaker—a Condition B effect with a speaker-denoting PRO_{pers} —whereas the interrogative pattern shows a gap with subjects that refer to the addressee. If the two restrictions have a common source, which I suggest they do, then the latter pattern arises due to the presence of an addressee-denoting PRO_{pers} .³¹ This shift in the denotation of PRO_{pers} is actually expected if we assume that matrix clauses are dominated by attitudinal operators (following Pearson 2012), and that this is how PRO_{pers} receives its denotation in matrix clauses.

The basic intuition here is that this is effectively a case of *interrogative flip* (see e.g. Speas and Tenny 2003), where the individual the modal operator is anchored to changes from speaker to addressee in questions. I adopt Pearson’s (2012) approach to matrix clauses here, as it allows us to treat matrix and embedded directives in a uniform way. Pearson (2012) argues, for independent reasons, that all matrix clauses are properties dominated by special attitudinal operators: COMMIT (62), which occurs in matrix declarative clauses, and ASK (63), which is its counterpart in matrix questions.³²

³¹ Note here, in relation to the discussion in Sect. 2.3, that partial referential overlap between plural 2P/inclusive 1P subjects and the addressee is not tolerated. This seems to be in line with Schlenker’s (2005b) observation that 1P (i.e. the speaker) is more tolerant towards partial referential overlap.

³² Pearson’s (2012) versions of the operators are called ASSERT and QUEST respectively. I renamed the operators in order to avoid confusion in relation to the interpretation of non-assertive constructions like directives. The ASSERT/COMMIT operator is in fact underspecified with respect to the speech acts it can be used with, and can be part of all sorts of speech acts executed with propositions (I postpone discussion of

$$(62) \quad \llbracket \text{COMMIT} \rrbracket^{c,g} = \lambda P_{\langle e, \langle s, t \rangle \rangle} : \forall \langle w', y \rangle [\langle w', y \rangle \in \text{Dox}_{sp(c), w(c)} \rightarrow P(y)(w')]. P$$

$$(63) \quad \llbracket \text{ASK} \rrbracket^{c,g} = \lambda Q_{\langle \langle e, \langle s, t \rangle \rangle, t \rangle} : \forall P [P \in Q \rightarrow \exists \langle w, x \rangle [\langle w, x \rangle \in \text{Dox}_{sp(c), w(c)} \\ \wedge \forall \langle w', y \rangle [\langle w', y \rangle \in \text{Dox}_{ad(c), w} \rightarrow P(y)(w')]]]. Q$$

COMMIT is a covert operator that takes a root sentence meaning (a property) as its argument and returns a property only if the property is true in the speaker's belief worlds (like Pearson, I assume here that a speaker speaks truly by uttering a sentence just in case the property expressed by that sentence is true of the speaker). This is due to the operator's presuppositional component, which also establishes COMMIT as a quantifier over doxastic alternatives of the speaker. What makes COMMIT different from an attitude predicate is that, syntactically, the latter may introduce a different person feature on the associated abstractor depending on the attitude holder/subject, while COMMIT is restricted to introducing 1P on its abstractor (Pearson 2012: 151).

The derivation of a matrix imperative like *Leave!* is given in (64a) through (64c).

(64) *Leave!*

a. [COMMIT [CP $\lambda x_2 \lambda w_3$ [w_3 PRO₂ OP_{f₂, g₂} [$\lambda w_4 w_4$ you leave]]]]

b. $\llbracket \text{CP} \rrbracket^{c,g} = \lambda x \lambda w . (\forall w' \in O(f_x, g_x, w)) [ad(c) \text{ leaves in } w']$

c. $\llbracket (64a) \rrbracket^{c,g}$ is defined iff $\forall \langle w', x \rangle [\langle w', x \rangle \in \text{Dox}_{sp(c), w(c)} \rightarrow (\forall w'' \in O(f_x, g_x, w)) [ad(c) \text{ leaves in } w'']]$

$$(\text{Dox}_{x,w} = \{ \langle w', y \rangle : \text{it is compatible with what } x \text{ believes in } w \text{ to be } x \text{ in } w' \})$$

COMMIT is an identity function with a definedness condition, so the only consequence of it combining with a directive CP is that the meaning of CP can only be defined if the individual self-identifying with the property denoted by the CP is the speaker. That is, the presuppositional component of COMMIT restricts the set of doxastic alternatives $\langle w', x \rangle$ to those compatible with the speaker's belief at w to be x in w' . Within the current approach, this means: (i) that PRO_{pers} is coreferential with the speaker and induces a Condition B violation with the subject if the subject is 1P exclusive, but also (ii) that the speaker, through PRO_{pers}, binds the variable in the centered conversational backgrounds f_x and g_x , which makes the distancing ban apply to the speaker.³³

Now I turn to questions and the ASK operator, introduced above in (63). ASK takes as a complement an interrogative sentence Q , which denotes a set of properties (type $\langle \langle e, \langle s, t \rangle \rangle, t \rangle$), and introduces the presupposition that, for every member of this set P , it is compatible with the speaker's beliefs that P is true at each of the addressee's

Footnote 32 continued

the speech act aspect of directive clauses and operators until Sect. 3.6). Additionally, I also omit reference to temporal coordinates in my versions of the operators (as I did with attitude reports above).

³³ As an anonymous reviewer points out, Greek root subjunctives show a similar restriction against 1P subjects. Crucially, the restriction is lifted in a small set of contexts, such as when the speaker is putting together a to-do list (roughly: 'I should go to the dentist, buy groceries, etc.') or when the speaker is shifting the responsibility of ensuring the preadjacent to the addressee (see Oikonomou 2016: 167–169 for discussion); the second type of context seems to ameliorate 1P subjunctives also in Slovenian. Oikonomou (2016) argues that these kinds of contexts involve a perspective shift from just the speaker to both the speaker and addressee, which in terms of the current analysis would mean a different kind of attitudinal operator—one that ensures that PRO_{pers} denotes a group containing the speaker and addressee. For similar effects in questions, see also footnote 37 and the discussion of the Newari conjunct-disjunct system in Sect. 5.1.

doxastic alternatives. The derivation of a directive clause under ASK is given in (65). I assume that the set of properties expressed by a question comes about through the WH operator, which turns the property expressed by its prejacent into a set of properties,³⁴ as shown in (65b). In the sample derivation for a polar question, the resulting set of properties contains a property and its negated counterpart.³⁵

- (65) SBJV *I leave?* (roughly: ‘Should I leave?’)
- a. [ASK [CP WH [$\lambda x_2 \lambda w_3$ [w_3 PRO₂ OP_{f_2, g_2} [$\lambda w_4 w_4$ I leave]]]]]
 - b. $\llbracket \text{CP} \rrbracket^{c, g} = \{ \lambda x . \lambda w . (\forall w' \in O(f_x, g_x, w)) [sp(c) \text{ leaves in } w'] , \lambda x . \lambda w . \neg (\forall w' \in O(f_x, g_x, w)) [sp(c) \text{ leaves in } w'] \}$
 - c. $\llbracket (65a) \rrbracket^{c, g}$ is defined iff $\forall P [P \in Q \rightarrow \exists \langle w, x \rangle [\langle w, x \rangle \in \text{Dox}_{sp(c), w(c)} \wedge \forall \langle w', y \rangle [\langle w', y \rangle \in \text{Dox}_{ad(c), w} \rightarrow P(y)(w')]]]$

The key difference, compared to (64), is that now the addressee’s doxastic alternatives are relevant for PRO_{pers} . The denotation of PRO_{pers} must be compatible with what the speaker believes the addressee self-identifies as. This is because, as opposed to COMMIT, the ASK operator restricts the set of doxastic alternatives $\langle w', y \rangle$ to those compatible with the addressee’s belief at w to be y in w' . This explains why obviation behaves differently in matrix questions: the 1P subject ban becomes a 2P subject ban. Because imperatives are the dedicated directive form for 2P subjects in Slovenian (and more generally),³⁶ the obviation pattern that arises due to the addressee-denoting PRO_{pers} effectively derives the absence of imperatives in information-seeking questions. The standard (usually tacit) assumption regarding the non-existence of imperative questions is that the two clause types are simply incompatible—given a system where any clause may only belong to one of the core universal clause types at a time (cf. Sadock and Zwicky 1985). The analysis above, in contrast, derives the ban as a consequence of ASK and the proposed semantics for the directive operator, without requiring stipulated restrictions on combining clause types.³⁷

³⁴ The WH operator essentially yields what in the current system amounts to Karttunen’s (1977) *proto-questions* (in his case, sets of propositions), which then become either polar or constituent questions.

³⁵ Notice that negation scopes high in (65b), as it is interpreted as relatively weak in directive polar questions. In most cases, negation will be interpreted low (i.e. below OP_{Dir}) due to pragmatic strengthening, in order to ensure that the positive and negative answer resolve the issue of what to do (see Kaufmann 2016b for ‘Answerhood’ as a presupposition of imperatives).

³⁶ All languages with imperatives have at least 2P imperatives (Zanuttni 2008; Zanuttni et al. 2012).

³⁷ This explanation for the lack of imperative questions is less restrictive than the clause typing one, which might be independently needed. Imperatives can occur at least in echo and rhetorical questions (Kaufmann and Poschmann 2013), which are not true information-seeking questions. This can be explained in the current approach with different kinds of interrogative operators. There is also further evidence from Slovenian suggesting that the pattern of matrix obviation—and hence the denotation of PRO_{pers} in matrix clauses—is more flexible. The additional data (omitted for reasons of space) concern directives in sequential scope marking questions (Dayal 1994, 2016), which behave like embedded directives for the purposes of obviation—in that PRO_{pers} is controlled by the attitude holder in the “matrix” question—but are syntactically like matrix questions. I discuss these data and their implications in more detail in Stegovec (2017).

3.5 *De se* versus *de re* construals in perspectival control configurations

The current proposal rests on PRO_{pers} being parallel to PRO in infinitives, apart from not being the subject of the clause. More evidence of parallelisms between the two would therefore be desirable. Control constructions involving attitude predicates have long been argued to obligatorily express *de se* attitudes (Morgan 1970; Chierchia 1987). If the parallelism I argue for holds, we expect directives to be the same and PRO_{pers} to have an obligatory *de se* interpretation. This prediction is borne out.

In order to show that PRO_{pers} is obligatorily *de se*, let us consider what it means to be a *de se* attitude and look at a canonical control case. Consider Pearson's (2016) definition of a *de se* attitude, which I will follow in this paper:

- (66) An attitude *de se* is an attitude [...] that has the following properties:
- i) *Aboutness condition*: the attitude is about the attitude holder; *and*
 - ii) *Awareness condition*: the attitude holder is aware that the attitude is about herself. (Pearson 2016: 694)

In other words, the attitude cannot be about the attitude holder without them being aware that this is the case. In practice, this means that the obligatory *de se* nature of PRO can be identified through contexts where individuals misidentify themselves. In such cases it is possible for the attitude holder to not be aware that the attitude is about them, which should not be possible to express with a control infinitive. One such context, taken from Pearson (2016), is provided in (67).

- (67) CONTEXT: John is an amnesiac. He reads a linguistics article that he himself wrote, although he has forgotten this fact. Impressed, he remarks, 'The author of this paper will become rich and famous. Unfortunately, I won't.'
- a. #John expects [PRO to become rich and famous].
 - b. John expects [that he will become rich and famous]. (Pearson 2016: 695)

In (67), only (67b) has a possible reading where it is true in the supplied context, while (67a) can only be false. This follows from the self-identification which results from the attitude verb combining with a set of doxastic alternatives (see Sect. 3.2).

In order to see if PRO_{pers} patterns the same, we need a context where the attitude holder misidentifies him/herself as not the director. Consider the scenario in (68).

- (68) CONTEXT: Charles VI is having one of his episodes again. He has forgotten that he is the king, that he has a wife and children, and he believes his name is Georges. He also believes that his mute guard is the king, and decides to interpret his guard's commands and wishes from his facial expressions. The queen is upset with her husband not remembering her, and is begging the stoic guards to do something about it. Charles is oblivious to the fact that he caused all this and is actually amused by all the commotion and excitement. But he also notices the growing expression of discomfort on the mute guard's face, so he interprets it to the other guards as, 'The king wants her gone.'
- a. #Karel VI. je rekel stražarjem, da naj jo odstranijo.
Charles VI is said.M guards.DAT that SBJV 3.F.ACC remove.3PL
'Charles VI told the guards to remove her.'

- b. #Karel VI. vam je rekel, da jo odstranite.
Charles VI 2PL.DAT is said.M that 3.F.ACC remove.IMP.2PL
'Charles VI told you (the guards) to remove her.'
- c. Karel VI. je rekel stražarjem, da jo morajo odstraniti.
Charles VI is said.M guards.DAT that 3.F.ACC must.3PL remove.INF
'Charles VI told the guards that they must remove her.'

There are two ways to report what happened: with an embedded directive (cf. (68a,b)) or an embedded modal+infinitive (cf. (68c)). The idea is that Charles VI utters an unintentional command—the guards take it as such since talking about himself in the third person is but a minor oddity in a day in the life of the Mad King. But Charles VI himself believes it to be a command from the mute guard. Although the judgment is delicate, the directives in (68a,b) cannot be used to accurately describe what transpired in (68), while the construction in (68c) can: the verb 'reči' ('say') is compatible with the speaker not knowing whether the utterance was a command or not.³⁸ This indicates that *PRO*_{pers} is obligatorily *de se*, and the proposed analysis of directives, according to which they are analogous to control constructions, straightforwardly captures that.

Returning briefly to obviation; corefering subjects can be used to show that *PRO*_{pers} differs from *pro* subjects in terms of being obligatorily *de se*. As an anonymous reviewer notes, the proposed account of obviation relies crucially on Condition B not applying between the matrix and embedded subject, but between *PRO*_{pers} and the subject—both in the embedded clause. This predicts that if the embedded subject is not coindexed with *PRO*_{pers}, but is coindexed with the matrix subject, there should be no Condition B violation and hence no obviation. This is in fact borne out, as obviation is voided if the embedded subject is coindexed with the matrix one, but construed *de re* (Schlenker 2005b; Szabolcsi 2010). Consider the scenario in (69) (cf. (68)).

- (69) CONTEXT: Charles VI, still believing he is not the king, chances upon the guard he believes to be the actual king. The guard is taking a break, drinking heavily and not looking that well. Worried for the health of his king, Charles VI writes a note to all the guards suggesting 'The king should drink less.'
 - a. Karel VI._i je predlagal, da naj manj pije._i
Charles VI is suggested.M that SBJV less drink.3
'Charles VI suggested that he should drink less.'
 - b. Predlagal si_i, da manj piji._i
suggest.M are.2 that less drink.IMP.(2)
'You suggested you should drink less.'

Charles VI's suggestion in (69) can be reported as in (69a), with an embedded subjunctive, or as in (69b), with an embedded imperative (this could be the queen talking to the king in one of his lucid moments). What is important is that these sentences are grammatical because the embedded subject is not interpreted *de se*, even though

³⁸ The only way in which a subjunctive like (68a) or an imperative like (68b) can be used as a report of the scenario is jokingly, by drawing attention to the fact that a directive is not appropriate given the scenario, and that the reporter knows that the king was not actually giving an order to the guards. In contrast, the modal+infinitive in (68c) does not have this effect, which further shows that the asymmetry is real.

the subjects refer to the same individual. The matrix attitude verb binds the embedded PRO_{pers} , just as in the standard case, yielding self-identification with the attitude holder, but the embedded subject is related to the attitude holder here only through a suitable acquaintance relation. Because of this, PRO_{pers} and the subject—although coreferential—are not coindexed, which circumvents Condition B/obviation.

An anonymous reviewer points out here that in principle one could also give the subject a *de se* construal through an identity acquaintance relation (see Anand 2006 for discussion); this could yield a *de se* reading while circumventing obviation just like the *de re* reading, which is not desired as it would completely negate the obviation effect. I suggest that this option is unavailable here because the possibility of a *de se* construal through binding blocks *de se* construals by alternative means. In other words, if you *can* get *de se* through binding, then you *must* get *de se* through binding—an idea related to Schlenker's (2005a) *Prefer De Se!* condition.³⁹ This additional condition is meant to reflect binding conditions like *Rule I* (Reinhart 1983), and perhaps there is a deeper connection between the two that should be explored. But that task is well beyond the scope of this paper, so I will not attempt it here.

In fact, *de se/de re* distinctions have long been known to play a role in Condition B contexts. A famous example of this are Lakoff's (1972) examples from dream reports; as shown in (70), Condition B does not hold between the 1P pronoun referring to the speaker's self-ascribed (*de se*) "dream self" (coindexing with the attitude verb is used to indicate a *de se* ascription) and the 1P pronoun referring to the speaker's (*de re*) bodily counterpart. Crucially, this possibility seems to be restricted to only 1P pronouns in English, as illustrated in (71), where Condition B holds between the 2P/3P pronouns, despite the object pronoun being construed as *de re*.

(70) I_i dreamt $_j$ that I_j was Brigitte Bardot and that I_j kissed me $_i$. (Lakoff 1972: 245)

(71) a. *Lakoff $_i$ dreamt $_j$ he $_j$ was Brigitte Bardot and he $_j$ kissed him $_i$.
 b. ??You $_i$ dreamt $_j$ you $_j$ were Brigitte Bardot and you $_j$ kissed you $_i$.
 (Arregui 2007: 32)

In addition to the sensitivity to person, the circumvention of canonical Condition B effects via *de re* construal is limited to only a small number of contexts; Arregui (2007) lists, in addition to dream reports, sentences under certain frame adverbials (e.g. *In the movie, ...*) and counterfactuals (e.g. *If I were her, ...*). Furthermore, the sensitivity to person itself appears to be subject to crosslinguistic parameterization; e.g. in Yoruba, a canonical Condition B effect with 3P pronouns (cf. (72a)) can be circumvented in dream reports (cf. (72b)), unlike what we see in English.⁴⁰

(72) a. o_i bú $o_{j,*i}$ Yoruba
 3 insulted 3
 'He $_i$ insulted him $_{j,*i}$.'

³⁹ It must be noted, though, that some of the motivation for Schlenker's (2005a) proposal concerning the behavior of logophors in Ewe has since been questioned (see Pearson 2012, 2015).

⁴⁰ Note that although Yoruba allows so-called *logophoric pronouns* (known to impose special restrictions on *de re/de se* construals; see Schlenker 1999; Anand 2006; Pearson 2012 for discussion) in attitude reports, the pronouns in the relevant examples are regular pronouns (see Anand 2006).

- b. John_i alaa_j pé o_j ni Mary e o_j bú o_i
 John dream that 3 be Mary and 3 insulted 3
 ‘John_i dreamed_j that he_j was Mary and he_j insulted him_i.’
 (Anand 2006: 58)

In contrast, a context where Condition B cannot be circumvented by a *de re* construed object pronoun is found in control infinitives, as pointed out by Sharvit (2011). This is illustrated with the context and example in (73); note here that even though the object pronoun is construed *de re* in the attitude report in (73a), this does not save the pronoun from being subject to Condition B in relation to the subject *PRO*.

- (73) CONTEXT: I visit three amnesiac male politicians currently running for office. I show each of them their picture and ask them to vote for the person on the picture. After that they each promise me: ‘I will vote for this guy.’
 a. *Every male politician_i promised *PRO*_{i(de se)} to vote for him_{i(de re)}
 (based on Sharvit 2011: 63)

Although explaining what unifies all the contexts where a *de re* construal allows pronouns to be exempt from Condition B goes well beyond the scope of this paper, we can see that subject obviation here again patterns with canonical Condition B effects. The hope is that future research may help us better understand why this possibility varies so much across different constructions and languages.⁴¹

3.6 Getting from propositions to speech acts, and an interim summary

In the discussion up to this point, the focus was on the distinctive semantics of directive clauses at the truth-conditional at-issue level, and nothing was said about how such clauses ultimately gain their speech act status. Given that directives were defined in terms of their canonical speech act function, this is a step that cannot be ignored.

I propose that the transition to the speech act level is mediated by the attitudinal operators COMMIT and ASK, which I modify slightly for this purpose. In order to move beyond the truth conditional at-issue semantic level, we need to adopt a model for discourse contexts and context change. I take here as a starting point the treatment of sentence meaning in dynamic semantics (Kamp 1981; Heim 1982; Groenendijk and Stokhof 1991). That is, a sentence is a function that maps input discourse contexts into output discourse contexts, or: the meaning of a sentence is its context change potential (CCP). Let us assume, following Gunlogson (2003), that the CCP of a sentence is defined in terms of an update to the commitment set of an individual discourse participant, the set of public beliefs (PB) (see also Lauer 2013). I modify this to fit the

⁴¹ An anonymous reviewer suggests a possible explanation for the difference between control infinitives like (73a) and subject obviation in Slovenian. Namely, the failure to circumvent Condition B in (73a) could be due to the fact that in English a reflexive object can occupy the same position as the object pronoun—which is not the case with obviation contexts in Slovenian, as Slovenian does not have subject reflexives (see footnote 23). While example (73a) would indeed work for Slovenian, the question is whether such a lexical blocking approach can be extended to the other cases discussed above; Anand (2006, 2007) argues that for at least a subset of the relevant examples the lexical blocking approach fails to capture the attested patterns.

current proposal, where all clauses are properties, so that PBs are sets of properties: PB_S^c and PB_A^c , the public belief sets of the speaker (S) and addressee (A) in context c respectively.

The modified COMMIT and ASK serve to update sets of public beliefs (on top of what was discussed in Sect. 3.4): COMMIT adds its prejacent (the property expressed by the clause) to PB_S^c , and ASK adds to PB_S^c the property of wanting the addressee to commit to the truth of one of the properties in the set.⁴² This allows the property expressed by a directive to be used performatively; by updating the PB component of the discourse context, the speaker either publicly commits to the necessity of the prejacent (COMMIT) or to wanting the addressee to commit to the necessity of the prejacent (ASK). The difference between matrix and embedded directives is then in the individual that binds the centered conversational backgrounds of OP_{Dir} (speaker in matrix versus matrix subject in embedded). Strictly speaking, embedding of a directive is not embedding of a speech act. A directive construction only gets its CCP at the matrix level, whether it is a matrix directive or an attitude verb with a directive complement.

This concludes the overview of the core analysis. The take-away message is that obviation and speaker distancing are both manifestations of perspectival control. Perspectival control arises with specific moods/modals, where the role of the controlled pronoun is to semantically restrict the relevant modal operator. This has consequences for both the syntax and semantics of such clauses, unifying a number of phenomena that *prima facie* appear unrelated. Of course, the fact that these phenomena *can* receive a unified account does not mean they *should* be analyzed that way. In the next section, I survey the two most plausible alternative accounts and conclude that they do not fare as well with the Slovenian data as the proposed account.

4 Comparison to other approaches

As was noted above, the proposed analysis of subject obviation fits broadly into the family of binding analyses of obviation. The main deviation, and I argue advantage, of my analysis compared to other binding analyses is that it ties obviation to a semantic source and fully generalizes obviation for embedded and matrix contexts. Furthermore, as I will show in this section, the most common version of the binding analysis of obviation faces serious issues when it comes to deriving obviation in Slovenian.

But not all existing analyses of obviation rely on binding. So it also needs to be shown that my analysis has an advantage over these alternative analyses when it comes to the Slovenian data. Similarly, it cannot be excluded a priori that what I describe as generalized obviation follows from an independently proposed analysis of directives or imperatives. To that extent, I look at the main alternative account of obviation—the *blocking account* (Bouchard 1982; Farkas 1992a; Schlenker 2005a)—and an alternative account of subject restrictions in directive clauses—the *positive constraint account* (Zanuttini 2008; Zanuttini et al. 2012), respectively.

⁴² An account roughly along these lines is worked out in more detail in Davis (2011).

Table 5 Agreement morphology across Slovenian indicatives, subjunctives, and imperatives

'pomagati' (to help)		singular	dual	plural
1P	IND	pomaga- m	pomaga- va	pomaga- mo
2P	IND	pomaga- š	pomaga- ta	pomaga- te
3P	IND	pomaga	pomaga- ta	pomaga- jo
1P	SBJV	<i>naj</i> pomaga- m	<i>naj</i> pomaga- va	<i>naj</i> pomaga- mo
1P (incl.)	IMP		pomagaj- va	pomagaj- mo
2P	IMP	pomagaj	pomagaj- ta	pomagaj- te
3P	SBJV	<i>naj</i> pomaga	<i>naj</i> pomaga- ta	<i>naj</i> pomaga- jo

4.1 Domain extension accounts of obviation

Outside the analysis I outlined in Sect. 3.3, the main issue faced by binding analyses of obviation is that the domain for Condition B is generally thought to span at most a single clause, which means the matrix subject and embedded subject should not be within the same domain, as illustrated in (74a). A common approach to bypassing this issue is to treat obviation contexts as exceptional, so that the domain for Condition B then extends to include the matrix subject (Picallo 1985; Rizzi 1990; Progovac 1993), as shown in (74b). One could in principle also extend this to matrix obviation cases within an approach that encodes speech act participants syntactically à la Speas and Tenny (2003), by assuming that the binding domain can extend to include the element encoding the speaker (or, in questions, the addressee), as shown in (74c); although, to my knowledge, no analysis of this kind has been proposed.

- (74) a. $[_{CP1} He_i \text{ said } [_{CP2} \text{ that } ([_{TP} pro_i [_{T'} T_{[IND]} \text{ help him}_{k,*i}]])]]$
- b. $[_{CP1} (He_i \text{ said } [_{CP2} \text{ that } [_{TP} pro_{*i} [_{T'} T_{[IMP/SBJV]} \text{ help him }]]])]$
- c. $[_{SaP} (SPEAKER_i [_{CP1} C [_{TP} pro_{*i} [_{T'} T_{[IMP/SBJV]} \text{ help him }]]])]$

The binding domain extension is generally attributed to “defective” inflectional morphology on the verb, as exemplified by the inflectionally poor subjunctive verbs in the Romance languages that show obviation. However, as pointed out by Farkas (1992a), Romanian subjunctives have similar morphological properties and yet show no obviation effects. In this respect, Slovenian is the reverse case, as it shows obviation despite the directives not being inflectionally poor. As laid out in Table 5, subjunctives have the same agreement paradigm as their indicative counterparts, while imperatives differ only for 2P singular and otherwise carry the same agreement morphology.

Importantly, as Farkas (1992a) notes further, trying to tie obviation to morphosyntactic properties of the verb misses the fact that the same verb form can either yield obviation or not, depending on the interpretation of the clause. Given that my proposal does not appeal to domain extension and ties obviation directly to the semantics of directives, it avoids these types of issues.

- b. *Rekel si_i priti $_i$ na obisk. (infinitive)
 said.M are.2 come.INF on visit.ACC
 inf.: ‘You said that you should come visit.’

The reverse is also the case: infinitive-selecting attitude verbs cannot take directive complements. The verb ‘*hoteti*’ (‘want’) can select an infinitive complement in (78a), but a subjunctive (78b) or imperative (78c) complement is impossible, regardless of the identity of its subject and whether or not it corefers with the matrix subject.

- (78) a. Hočem $_i$ pomagati $_i$ mami. (infinitive)
 want.1 help.INF mom.DAT
 ‘I want to help mom.’
- b. *Hočem $_i$, da naj pomaga $_k(m_i)$ mami. (subjunctive)
 want.1 that SBJV help.3/(1) mom.DAT
 int.: ‘I want that (s)he/I should help mom.’
- c. *Hočem $_i$, da pomagaj $_k$ mami. (imperative)
 want.1 that help.IMP.(2) mom.DAT
 int.: ‘I want that you should help mom.’

If directives are systematically absent in the contexts where infinitives occur and vice versa, the two are never in competition and the conditions required for blocking never arise. A way out for blocking would be to say that directives are actually in competition with the modal+infinitive construction which, as we saw throughout the paper, can be used to paraphrase directives excluded by obviation. However, unlike with control infinitives, the subject of such constructions can be an unbound *pro* or even an overt NP, as in (79a). Such constructions are also not restricted to canonical control contexts, as shown by (79b), where no attitude verb is present.⁴⁴

- (79) a. Rekel si_i da mora $_k$ (Luka $_k$) priti na obisk.
 said.M are.2 that must.3 (Luka) come.INF on visit.ACC
 ‘You said that he/Luka must come visit.’
- b. Luka mora priti na obisk.
 Luka must.3 come.INF on visit.ACC
 ‘Luka must come visit.’

The modal+infinitive construction is therefore, unlike a subject control infinitive, not specialized for subject coreference/*de se* attitude contexts, which means that it cannot block directives from being used just in those contexts.

In sum, the lack of competition between directives and control infinitives in Slovenian means that a blocking account of obviation cannot be successful—at least not any version that I am familiar with. Since the analysis proposed in this paper does not rely on competition, these data are wholly unproblematic for it.

⁴⁴ It may also be that the modal verb in such constructions is a raising verb, where the subject moves from its base position into the specifier of the modal, roughly in line with the proposal for modal verbs in Wurmbrand (1999). But even under this analysis such constructions are not obligatory control infinitives.

4.3 Obviation as a positive constraint

Another alternative to the binding analysis is that the obviation pattern actually arises due to a conspiracy of positive constraints. The binding approach derives the obviation pattern by excluding particular subjects (a negative constraint), but it could also be that the pattern arises because directives *require* a very specific kind of subject, and subjects coreferential with the attitude holder simply do not fit the bill.

On Zanuttini's (2008) proposal, imperative subjects stand in a special relation with a dedicated *Jussive* functional head, which both semantically binds the subject and agrees with it. The Jussive head bears 2P features, which through this relation make it so that only 2P subjects are possible in imperatives. Expanding this analysis further, Zanuttini et al. (2012) look at a range of clause types in Korean: imperatives, which only take 2P subjects (cf. (80a)), exhortatives, which only take inclusive 1P subjects (cf. (80b)), and promissives, which only take exclusive 1P subjects (cf. (80c)).

- (80) a. Cemsim-ul sa-**la**. (imperative)
 lunch-ACC buy-IMP
 'Buy lunch!'
- b. Cemsim-ul sa-**ca**. (exhortative)
 lunch-ACC buy-EXH
 'Let's buy lunch!'
- c. Cemsim-ul sa-**ma**. (promissive)
 lunch-ACC buy-PRM
 'I will buy lunch!' (Zanuttini et al. 2012: 1234)

They argue that each clause type corresponds to a Jussive head associated with a different feature: Jussive-imperative = 2P, Jussive-exhortative = 1P+2P, and Jussive-promissive = 1P. Each restricts its respective subject to the specified person value by semantically binding it. But what is most relevant in relation to Slovenian is that in Korean all three clause types can also occur in embedded contexts in speech reports:

- (81) a. Ku salam-i Inho-eykey_i [swuni-lul towacwu-**la**_i]-ko malhayss-ta.
 that person-NOM Inho-DAT [swuni-ACC help-IMP]-COMP said-DC
 'He told Inho to help Swuni.'
- b. Ku salam-i_i Inho-eykey_k [swuni-lul towacwu-**ca**_{i+k}]-ko malhayss-ta.
 that person-NOM Inho-DAT [swuni-ACC help-EXH]-COMP said-DC
 'He told Inho let's help Swuni.' (indirect speech)
- c. Ku salam-i_i Inho-eykey [swuni-lul towacwu-**ma**_i]-ko malhayss-ta.
 that person-NOM Inho-DAT [swuni-ACC help-PRM]-COMP said-DC
 'He said to Inho that he promises to help Swuni.' (Pak et al. 2008: 170)

In such cases, the subjects of the embedded clause are crucially shifted to the original context (Pak et al. 2008), that is: (i) imperative subjects refer to the original addressee (matrix indirect object), as in (81a); (ii) exhortative subjects to the original speaker and addressee simultaneously (matrix subject and indirect object), as in (81b); and (iii) promissive subjects to the original speaker (matrix subject), as in (81c).⁴⁵

⁴⁵ Pak et al. (2008) assume Schlenker's (2003) approach to shifting indexicals.

But how would this approach translate to the Slovenian paradigm? Minimally, we would have to posit: a Jussive-imperative head with 2P features (82a), another version with inclusive 1P+2P features (82b) (cf. Zanuttini et al.'s exhortative), and a third Jussive-subjunctive head with no positive person feature specification (82c).

- (82) a. Jussive-imperative₁ = [addressee] (2P)
 b. Jussive-imperative₂ = [addressee; speaker] (incl. 1P)
 c. Jussive-subjunctive = [∅] (3P)

In matrix contexts, this derives all attested subjects and excludes the unattested 1P exclusive ones. Complications arise, however, with embedding and questions, where 1P subjunctives *are* attested. Obviation in embedded directives can in principle be described in context shift terms: subjects each shift to the corresponding speech act participant in the original context, and since no Jussive head in (82) has only a [speaker] feature, the result is equivalent to obviation. The problem is an empirical one: in Slovenian, arguments in embedded directives are strict indexicals (see Stegovec and Kaufmann 2015 regarding imperatives). The subject of an embedded 1P subjunctive must refer to the actual speaker, who can correspond to any individual in the original context.⁴⁶ If, therefore, (82) is to be extended to embedded contexts, the features have to be strict indexicals. But then (82) fails to derive the attested pattern: 1P subjunctives are predicted not to exist and the obviation effect is left unexplained. Furthermore, it is unclear how this type of approach could be extended to matrix questions, which fail to make accessible an original context with potentially different participants.

Note, moreover, that the suggested extension of Zanuttini et al.'s account derives obviation as a conspiracy of three positive constraints and context shift (in principle all potential parameters of variation). This fails to capture the parallelism with control, the correlation of collective plural readings with the tolerance for partial referential overlap (cf. Sect. 2.3), and other cases where obviation is voided (e.g. with *de re* construed subjects; cf. Sect. 3.5). It is not surprising that the analyses of Zanuttini (2008), Pak et al. (2008), and Zanuttini et al. (2012) cannot be extended to derive obviation, as obviation is not what these analyses were designed to capture.

5 Extensions

The paper so far focused almost exclusively on Slovenian data, but the proposed analysis is meant to be applicable to other languages with similar patterns, as well as to other related phenomena. In this section I highlight some possible extensions. They are not meant as fully fledged analyses, but only rough illustrations of how the analysis could be extended and where it needs to be developed further.

⁴⁶ Pak et al. (2008) also observe for Korean that overt subjects of embedded jussives are unshiftable and show a number of additional restrictions; e.g. they can only refer to a subset of referents of the matrix indirect object in imperatives and a subset of referents of the matrix indirect object and matrix subject in exhortatives. None of these restrictions are observed in Slovenian embedded imperatives with overt subjects.

5.1 Non-obviating subjunctives and obviation outside directives/subjunctives

Thus far, the need for PRO_{pers} in directives was discussed solely from the point of view of semantics; the base-generated PRO_{pers} must combine with OP_{Dir} in order to semantically satisfy the operator. But note that nothing in the semantics of OP_{Dir} prevents it from being saturated by another type e element—for example, an argument moving to the relevant position. Just as in the case of PRO in control infinitives, there must also be conditions on the syntactic licensing of PRO_{pers} , since it should be explained why other type e elements cannot occur in the same syntactic slot.

The main questions any theory of control must answer are: (i) where does PRO occur, and (ii) how does it get interpreted. So far, I have addressed only the second of these. As for the first question, the descriptive generalization most analyses of control infinitives aim to capture is that PRO occurs in non-finite clauses where other types of subjects cannot be licensed. Setting aside the exact technical details, I adopt the rather uncontroversial view that PRO is syntactically licensed in these positions by a local functional head (see Chomsky 1981; Chomsky and Lasnik 1993 for different technical implementations).⁴⁷ With respect to PRO_{pers} in Slovenian, I assume that it is licensed in a similar way—presumably by OP_{Dir} itself—and since in the general case the arguments of the verb are licensed below MoodP, the licensing function of OP_{Dir} is reserved and specialized for PRO_{pers} . Of course, at some point a more formal analysis of PRO_{pers} licensing should be developed, but the purpose of this discussion is merely to illustrate how potential differences between the syntactic and semantic functions of OP_{Dir} can be appealed to in order to extend the present analysis to other languages.

One such example are Greek subjunctives, and potentially Balkan-type subjunctives more generally (see Quer 2006:674–676). These are usually discussed as subjunctives which do not give rise to obviation—often in connection with the language lacking true infinitival verb forms (Farkas 1992a). But there are cases where Greek subjunctives do show a type of obviation effect. Consider first that in Greek a null subject in a subjunctive must be interpreted as coreferential with the matrix subject when the subjunctive is embedded by a subset of verbs crosslinguistically associated with control, as in (83a) (Iatridou 1993: 178). In contrast, an attitude verb like ‘*ipe*’ (‘say’) allows disjoint reference between the matrix and embedded subject, as in (83b). However, when the subjects are coreferential, as in (83c), the same verb must be interpreted as meaning ‘decide’.⁴⁸

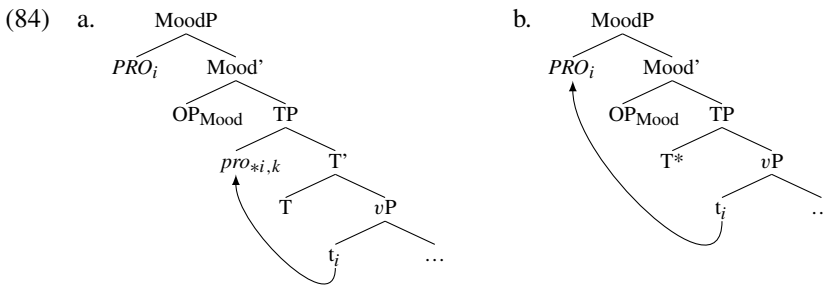
- (83) a. O Nikos_i tolmise na figi_{i,*k}. Greek
 the Nick dared.3 SBJV leave.3
 ‘Nick dared to leave.’
 b. O Nikos_i ipe na figi_k.
 the Nick said.3 SBJV leave.3
 ‘Nick_i ordered/asked that he_k leave.’

⁴⁷ Admittedly, this is a very simplified characterization, but it is sufficient for the present purposes; see Landau (2013, 2015), McFadden and Sundaresan (2018) for an overview of more recent developments.

⁴⁸ I thank an anonymous reviewer for pointing out these examples to me, and Christos Christopoulos for discussion and additional help with the Greek data.

- c. #O Nikos_i ipe na figi_i.
 the Nick said.3 SBJV leave.3
 ‘Nick decided to leave.’ (only possible reading)

Consider now that if we were to attribute the general lack of obviation in Greek subjunctives to the absence of a centered modal operator, it would be hard to explain the contrast between (83b) and (83c). The contrast can be explained, though, if the matrix verb can select either a control complement, as in (83a,c), or an obviating complement, as in (83b), depending on the matrix verb’s interpretation or selectional preferences. What must be explained is why both these two complements surface as identical, rather than showing the infinitive/subjunctive contrast found in many other languages. I suggest that this is possible because complement clauses contain a OP_{Dir}-like element, but differ in how they license the subject. In the case of an obviating subjunctive, the configuration is identical to the one we discussed for Slovenian, illustrated in (84a), where T can license a regular *pro* subject.⁴⁹ Conversely, a derivation may also contain a T incapable of licensing a *pro* subject (T*), in which case a *PRO* subject is used, but the only available licenser is the operator in MoodP, so the *PRO* must raise to it, as shown in (84b), yielding essentially a control configuration.



The core idea is that due to the absence of true infinitives, Mood—which independently has the ability of licensing a *PRO* element—takes over the role of licensing subject *PRO*. If the matrix verb shows no preference for a specific type of complement clause, the assumption is that the choice between (84a) and (84b) is free, giving the appearance of no restrictions on the subject. This analysis thus allows us to capture the double role of Greek subjunctives, while also explaining why marginal cases of obviation can be found even in a language that generally lacks them.

Certain types of evidential marking may be another area to which we can extend this type of analysis. Recall that, as discussed briefly in Sect. 3.3, the centered modal operator analysis can in principle be extended to other types of modality—and evidential marking has been argued to involve a modal component (see Izvorski 1997; McCready and Ogata 2007; Matthewson et al. 2008). A possible candidate for an analysis in terms of centered modal operators is the phenomenon of *conjunct-disjunct marking* in languages like Newari (Hale 1980; Zu 2016, 2018), a type of evidential

⁴⁹ I focus here only on embedded subjunctives, due to the comparison I am making with control infinitives. See, however, Oikonomou (2016) (and footnote 33 above) on the ban on IP matrix subjunctives in Greek. Under the current analysis of obviation, these too would be given the structure in (84a), although they would be embedded under the COMMIT operator as opposed to an attitude verb.

Table 6 The conjunct-disjunct marking pattern in Newari

	baseline		question		embedded	
CONJUNCT	✓ 1P	✗ 2P/3P	✓ 2P	✗ 1P/3P	✓ control	✗ obviation
DISJUNCT	✗ 1P	✓ 2P/3P	✗ 2P	✓ 1P/3P	✗ control	✓ obviation

marking sensitive to the identity of the attitude holder. In conjunct-disjunct marking systems, conjunct morphology surfaces on the verb with 1P subjects in matrix declaratives, 2P subjects in questions, and subjects coreferential with the matrix subject in embedded clauses; disjunct morphology, in contrast, surfaces with 2P and 3P subjects in matrix declaratives, 1P and 3P subjects in questions, and subjects of disjoint reference with the matrix subject in embedded clauses (see Table 6).

The distribution of disjunct morphology basically parallels directives in Slovenian—that is, obviation with respect to the relevant attitude holder. Conjunct morphology, on the other hand, surfaces with control configurations. Within the current approach, we can encode this in terms of different centered modal operators: (i) a *disjunct operator* (OP_{disj}) which must combine with a base-generated PRO_{pers} , yielding obviation, as shown in (85a), and (ii) a *conjunct operator* (OP_{conj}) which attracts and combines with the subject, yielding a control-like configuration, as shown in (85b).

- (85) a. [λ_i [PRO_i [OP_{disj} [$_{vP}$ $SU_{*i,k}$ [v ...]]]]]]
 b. [λ_i [SU_i [OP_{conj} [$_{vP}$ t_i [v ...]]]]]]

Note that the raising conjunct construction in (85b) differs from that in (84b) in that the raised argument is not PRO , although it could also be analyzed as an overt counterpart of a PRO subject (see Szabolcsi 2009 on overt subjects in Hungarian infinitives). What is important here is that the subject must be bound by either the dominating attitude verb or the appropriate attitudinal operator (see also Pearson 2012 for a similar analysis of conjunct marking, but without the raising of the subject).

The parallelism with obviation in Slovenian is not complete though: obviation persists in Slovenian with non-singular subjects. Thus, 2P plural and dual subjects are banned in directives in matrix questions, as shown in (86).

- (86) a. Pomagajte si!
 help.IMP.2PL REFL.DAT
 ‘Help yourselves!’
 b. *Pomagajte si?
 help.IMP.2PL REFL.DAT
 ‘Should you help yourselves?’

Vera Zu (p.c.) informs me that the pattern is more complicated with conjunct-disjunct marking, at least in Newari. With plural (inclusive and exclusive) 1P subjects, what matters for the choice of conjunct or disjunct morphology seems to be whether the speaker knows the answer to the question or not. If the speaker does not know the answer, *disjunct* is used, but if the speaker already knows the answer, *conjunct* is used. This suggests that the status of the question matters in conjunct-disjunct systems. Within the current system the difference could be attributed to different types of the ASK operator (see footnote 37), with corresponding differences in the updates to the speaker’s and addressee’s public belief sets. I leave this open for future exploration.

An important prediction of the approach outlined in this section is that the choice of element combining with the operator should also influence the distancing facts—that

is, who is associated with the public commitments about the prejacent. Note that this is always predicted to be the attitude holder; the raising versus obviation split only regulates whether the attitude holder also corresponds to the subject or not. Whether these predictions are confirmed crosslinguistically remains to be established.

5.2 Strange (in)clusivity

This final remark concerns not an extension of the account per se, but an empirical observation that touches upon a number of theoretical issues. It pertains to the interpretation of (in)clusivity in embedded clauses in relation to context shifting.

Slovenian 1P directives comprise imperatives with inclusive 1P subjects and subjunctives with exclusive 1P subjects. Interestingly, in embedded contexts the interpretation of 1P exclusive subjects does not correspond to the exclusion of the addressee, as exclusivity is standardly understood—neither the addressee of the original context, nor the addressee of the actual context. The inclusive subject of the imperative in (87a) must refer to both the actual speaker and the addressee. The subject of the subjunctive in (87b), however, is exclusive with respect to the original speaker—the denotation of the subject can include either the actual or the original addressee or both, as long as it includes the actual speaker (strict 1P indexicality) but not the original speaker (exclusivity).

- (87) a. Rekel_i je, da pojmo_{k(+i)}. b. Rekel_i je, da naj pojmo_{k(*+i)}.
 said.M is that sing.IMP.1PL said.M is that SBJV sing.1PL
 ‘He_i said we_{k(+i)} should sing.’ ‘He_i said we_{k(*+i)} should sing.’

I am at this stage not aware of any analysis that could derive these facts. But they strike me as related to ‘monstrous agreement’ and other cases of interactions between agreement and context shift that have received much attention in the recent literature (see Sundaresan 2011; Messick 2017; Deal 2018, i.a.). Given the key role (in)clusivity plays in the interpretation of person, such facts should certainly be considered in future work on shifting indexicals.

6 Conclusion

In this paper I proposed a new type of control configuration that I dubbed ‘perspectival control’. This configuration involves control of a perspectival *PRO* located in the Mood domain of a clause, where the *PRO* saturates a special kind of modal operator. I have argued that this configuration arises in directive clauses, where perspectival *PRO* serves as an individual-type restrictor for the modal component of the clause, resulting in the public commitments associated with the modal operator being attributed to the individual which the perspectival *PRO* denotes. The perspectival control configuration, although existing to fulfill a semantic requirement, has repercussions in the syntax in the form of the subject obviation effect: *PRO* can function as an antecedent for a subject pronoun and give rise to a Condition B effect. Although the data used to argue for the analysis came almost exclusively from Slovenian, this analysis can be extended to other

languages and be tailored to deal with a number of seemingly unrelated phenomena. Even more importantly, the discussion in this paper should inform future discussions of directive clauses, theorizing concerning mood and modality, and the syntactic and semantic representation of discourse-related information.

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References

- Anand, Pranav. 2006. *De de se*. PhD dissertation, MIT.
- Anand, Pranav. 2007. Dream report pronouns, local binding, and attitudes ‘de se’. In *Proceedings of SALT 17*, ed. T. Friedman and M. Gibson, 1–18. Ithaca, NY: CLC Publications.
- Arregui, Ana. 2007. Being ‘me’, being ‘you’: Pronoun puzzles in modal contexts. In *Proceedings of Sinn und Bedeutung 11*, ed. E. Puig-Waldmüller, 31–45. Barcelona: Universitat Pompeu Fabra.
- Baker, Mark C. 2008. *The syntax of agreement and concord*. Cambridge: Cambridge University Press.
- Bianchi, Valentina. 2001. On person agreement. Manuscript. Pisa: Scuola Normale Superiore.
- Bianchi, Valentina. 2003. On finiteness as logophoric anchoring. In *Temps et point de vue/Tense and point of view*, ed. J. Guéron and L. Tasmovski, 213–246. Nanterre: Université Paris X.
- Bouchard, Denis. 1982. On the content of empty categories. PhD dissertation, MIT.
- Büring, Daniel. 2005. *Binding theory*. Cambridge: Cambridge University Press.
- Charnavel, Isabelle. 2015. On scalar readings of French *propre* (‘own’). *Natural Language & Linguistic Theory* 33 (4): 1–57.
- Chierchia, Gennaro. 1987. Anaphora and attitudes *de se*. In *Language and context*, ed. B. van Bartsch and E. van Boas, 1–31. Dordrecht: Foris.
- Chomsky, Noam. 1981. *Lectures on government and binding*. Dordrecht: Foris.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on minimalism in honor of Howard Lasnik*, ed. R. Martin, D. Michaels, and J. Uriagereka, 89–155. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. M. Kenstowicz, 1–52. Cambridge, MA: MIT Press.
- Chomsky, Noam, and Howard Lasnik. 1993. The theory of principles and parameters. In *Syntax: An international handbook of contemporary research*, ed. J. Jacobs, A. von Stechow, W. Sternefeld, and T. Vennemann, 506–569. Berlin: de Gruyter.
- Condoravdi, Cleo, and Sven Lauer. 2012. Imperatives: Meaning and illocutionary force. In *Empirical issues in syntax and semantics 9*, ed. C. Piñón, 37–58. Paris: CNRS.
- Condoravdi, Cleo, and Sven Lauer. 2017. Conditional imperatives and endorsement. In *Proceedings of NELS 47*, ed. A. Lamont and K. Tetzloff, Vol. 1, 185–204. Amherst, MA: GLSA.
- Costantini, Francesco. 2014. Subject obviation in subjunctive clauses as a semantic failure. Manuscript, University of Venice.
- Crnić, Luka, and Tue Trinh. 2009a. Embedding imperatives. In *Proceedings of NELS 39*, ed. S. Lima, K. Mullin, and B. Smith, 227–238. Amherst, MA: GLSA.
- Crnić, Luka, and Tue Trinh. 2009b. Embedding imperatives in English. In *Proceedings of Sinn und Bedeutung 13*, ed. A. Rieger and T. Solstad, 113–127. Stuttgart: University of Stuttgart.
- Davis, Christopher M. 2011. Constraining interpretation: Sentence final particles in Japanese. PhD dissertation, University of Massachusetts, Amherst.

- Dayal, Veneeta. 1994. Scope marking as indirect wh-dependency. *Natural Language Semantics* 2 (2): 137–70.
- Dayal, Veneeta. 2016. *Questions*. Oxford: Oxford University Press.
- Deal, Amy Rose. 2018. Indexiphors: Notes on embedded indexicals, shift agreement, and logophoricity. Manuscript, UC Berkeley. <http://ling.auf.net/lingbuzz/003836>.
- Despić, Miloje. 2011. Syntax in the absence of determiner phrase. PhD dissertation, University of Connecticut.
- Despić, Miloje. 2013. Intensifiers, focus, and clitics: Is pronoun position truly an argument for D in SC? In *Nominal constructions in Slavic and beyond*, ed. L. Schürcks, A. Giannakidou, U. Etxeberria, and P. Kosta, 39–74. Berlin: De Gruyter.
- Dong, Quang Phuc. 1992. English sentences without overt grammatical subject. In *Studies out in left field: Defamatory essays presented to James D. McCawley on his 33rd or 34th birthday* [reprint of the original edition], ed. A.M. Zwicky, P.H. Salus, R.I. Binnick, and A.L. Vanek, 3–18. Amsterdam: John Benjamins.
- du Feu, Verónica. 1996. *Rapanui*. New York: Routledge.
- Dvořák, Boštjan. 2005. Slownische Imperative und ihre Einbettung. *Philologie im Netz* 33: 36–73.
- Dvořák, Boštjan, and Ilse Zimmermann. 2008. Imperative subordination in Slovenian. In *Issues in Slavic syntax and semantics*, vol. 6, ed. A. Smirnova and M. Curtis, 14–34. Newcastle: Cambridge Scholars Publishing.
- Eckardt, Regine. 2002. Reanalyzing *selbst*. *Natural Language Semantics* 9: 371–412.
- Evans, Gareth. 1980. Pronouns. *Linguistic Inquiry* 11: 337–362.
- Farkas, Donka F. 1992a. On obviation. In *Lexical matters*, ed. I.A. Sag and A. Szabolcsi, 85–110. Stanford, CA: CSLI Publications.
- Farkas, Donka F. 1992b. On the semantics of subjunctive complements. In *Romance languages*, ed. P. Hirschbühler and E.F.K. Koerner, 69–104. Amsterdam: John Benjamins.
- Giannakidou, Anastasia. 1998. *Polarity sensitivity as (non)veridical dependency*. Amsterdam: John Benjamins.
- Grodzinsky, Yosef, and Tanya Reinhart. 1993. The innateness of binding and coreference. *Linguistic Inquiry* 24: 69–102.
- Groenendijk, Jeroen, and Martin Stokhof. 1991. Dynamic predicate logic. *Linguistics and Philosophy* 14: 39–100.
- Gunlogson, Christine. 2003. *True to form: Rising and falling declaratives as questions in English*. New York: Routledge.
- Hacquard, Valentine. 2006. Aspects of modality. PhD dissertation, MIT.
- Hacquard, Valentine. 2010. On the event relativity of modal auxiliaries. *Natural Language Semantics* 18 (1): 79–114.
- Hale, Austin Everett. 1980. Person markers: Finite conjunct and disjunct verb forms in Newari. In *Papers in South East Asian linguistics*, vol. 7, ed. R.L. Trail, 95–106. Canberra: Australian National University.
- Han, Chung-Hye. 1998. The structure and interpretation of imperatives. PhD dissertation, University of Pennsylvania. [Published by Garland, 2000].
- Heim, Irene. 1982. The semantics of definite and indefinite noun phrases. PhD dissertation, University of Massachusetts at Amherst.
- Heim, Irene. 1998. Anaphora and semantic interpretation: A reinterpretation of Reinhart's approach. In *The interpretive text (MITWPL 25)*, ed. U. Sauerland and O. Percus, 205–246. Cambridge, MA: MIT.
- Heim, Irene. 2002. Features of pronouns in semantics and morphology. Handout of talk given at USC on January 31, 2002.
- Heim, Irene. 2007. Forks in the road to Rule I. In *Proceedings of NELS 38*, ed. M. Abdurrahman, A. Schardl, and M. Walkow, 339–358. Amherst, MA: GLSA.
- Iatridou, Sabine. 1993. On nominative case assignment and a few related things. In *MIT Working Papers in Linguistics 19*, ed. C. Philips, 175–196. Cambridge, MA: MIT.
- Izvorski, Roumyana. 1997. The present perfect as an epistemic modal. In *Proceedings of SALT 7*, ed. A. Lawson and E. Cho, 222–239. Ithaca, NY: CLC Publications.
- Kamp, Hans. 1981. A theory of truth and semantic representation. In *Formal methods in the study of language*, ed. J. Groenendijk, T. Janssen, and M. Stokhof, 277–322. Amsterdam: Mathematisch Centrum.
- Karttunen, Lauri. 1977. Syntax and semantics of questions. *Linguistics and Philosophy* 1 (1): 3–44.
- Kaufmann, Magdalena. 2012. *Interpreting imperatives*. Berlin: Springer.

- Kaufmann, Magdalena. 2016a. Fine-tuning natural language imperatives. *Journal of Logic and Computation*. <https://doi.org/10.1093/logcom/exw009>. First published online, June 18, 2016.
- Kaufmann, Magdalena. 2016b. Free choice is a form of dependence. *Natural Language Semantics* 24 (3): 247–290. <https://doi.org/10.1007/s11050-016-9125-4>.
- Kaufmann, Magdalena, and Stefan Kaufmann. 2015. Conditionals and modality. In *The handbook of contemporary semantic theory*, ed. S. Lappin and C. Fox, 237–270. Hoboken, NJ: Wiley-Blackwell.
- Kaufmann, Magdalena, and Claudia Poschmann. 2013. Embedded imperatives: Empirical evidence from colloquial German. *Language* 89 (3): 619–637.
- Kempchinsky, Paula. 1986. Romance subjunctive clauses and logical form. PhD dissertation, UCLA.
- Kempchinsky, Paula. 2009. What can the subjunctive disjoint reference effect tell us about the subjunctive? *Lingua* 119 (12): 1788–1810.
- Kratzer, Angelika. 1981. The notional category of modality. In *Words, worlds, and contexts*, ed. H.J. Eikmeyer and H. Riesner, 38–74. Berlin: de Gruyter.
- Kratzer, Angelika. 1991. Modality. In *Semantik. Ein internationales Handbuch der zeitgenössischen Forschung*, ed. A. von Stechow and D. Wunderlich, 639–650. Berlin: de Gruyter.
- Kratzer, Angelika. 2012. *Modals and conditionals*. Oxford: Oxford University Press.
- Kratzer, Angelika. 2013. Modality and the semantics of embedding. (slides). Talk presented at the Amsterdam Colloquium, December 20, 2013.
- Lakoff, George. 1972. Linguistics and natural logic. In *Semantics of natural languages*, ed. D. Davidson and G. Harman, 545–655. Dordrecht: Reidel.
- Landau, Idan. 2013. *Control in generative grammar: A research companion*. Cambridge: Cambridge University Press.
- Landau, Idan. 2015. *A two-tiered theory of control*. Cambridge, MA: MIT Press.
- Lasnik, Howard. 1989. *Essays on anaphora*. Dordrecht: Kluwer.
- Lauer, Sven. 2013. Towards a dynamic pragmatics. PhD dissertation, Stanford University.
- Lauer, Sven. 2015. Performative uses and the temporal interpretation of modals. In *Proceedings of the 20th Amsterdam Colloquium*, ed. T. Brochhagen, F. Roelofsen, and N. Theiler, 217–226. Amsterdam: ILLC, University of Amsterdam.
- Lewis, David. 1973. *Counterfactuals*. Oxford: Blackwell.
- Lewis, David. 1979a. Attitudes de dicto and de se. *Philosophical Review* 88: 513–543.
- Lewis, David. 1979b. A problem about permission. In *Essays in honor of Jaakko Hintikka*, ed. E. Saarinen et al., 163–175. Dordrecht: Reidel. [Reprinted from 1970].
- Matthewson, Lisa, Henry Davis, and Hotze Rullmann. 2008. Evidentials as epistemic modals: Evidence from St'át'imcets. In *The linguistic variation yearbook 7*, ed. J. van Craenebroeck et al., 201–254. Amsterdam: John Benjamins.
- McCready, Eric, and Norry Ogata. 2007. Evidentiality, modality and probability. *Linguistics and Philosophy* 30: 147–206.
- McFadden, Thomas, and Sandhya Sundaresan. 2018. Reducing *pro* and *PRO* to a single source. *The Linguistic Review* 35 (3): 463–518.
- Medeiros, David J. 2013. Formal approaches to the syntax and semantics of imperatives. PhD dissertation, University of Michigan.
- Messick, Troy. 2017. The morphosyntax of self-ascription: A cross-linguistic study. PhD dissertation, University of Connecticut.
- Morgan, Jerry. 1970. On the criterion of identity for noun phrase deletion. In *Proceedings from the regional meeting of the Chicago Linguistic Society (CLS) 6*. Chicago: University of Chicago.
- Ninan, Dilip. 2005. Two puzzles about deontic necessity. In *New work on modality (MITWPL 51)*, ed. J. Gajewski, V. Hacquard, B. Nickel, and S. Yalcin, 149–178. Cambridge, MA: MIT.
- Oikonomou, Despina. 2016. Covert modals in root contexts. PhD dissertation, MIT.
- Oshima, David Y. 2006. Perspectives in reported discourse. PhD dissertation, Stanford University. [Revised version published as a monograph with VDM Verlag, 2011].
- Pak, Miok, Paul Portner, and Raffaella Zanuttini. 2008. Agreement in promissive, imperative, and exhortative clauses. *Korean Linguistics* 14: 157–175.
- Pearson, Hazel. 2012. The sense of self: Topics in the semantics of de se expressions. PhD dissertation, Harvard.
- Pearson, Hazel. 2013. A judge-free semantics for predicates of personal taste. *Journal of Semantics* 30 (1): 103–154. <https://doi.org/10.1093/jos/ffs001>.

- Pearson, Hazel. 2015. The interpretation of the logophoric pronoun in Ewe. *Natural Language Semantics* 23 (2): 77–118. <https://doi.org/10.1007/s11050-015-9112-1>.
- Pearson, Hazel. 2016. The semantics of partial control. *Natural Language & Linguistic Theory* 34 (2): 691–738. <https://doi.org/10.1007/s11049-015-9313-9>.
- Picallo, M. Carme. 1985. Opaque domains. PhD dissertation, CUNY.
- Portner, Paul. 1997. The semantics of mood, complementation, and conversational force. *Natural Language Semantics* 5: 167–212.
- Portner, Paul. 2007. Imperatives and modals. *Natural Language Semantics* 15 (4): 351–383.
- Potsdam, Eric. 1996. Syntactic issues in English imperatives. PhD dissertation, UCSC. [Published by Garland, 1998].
- Progovac, Ljiljana. 1993. Subjunctive: The (mis) behavior of anaphora and negative polarity. *The Linguistic Review* 5: 75–110.
- Quer, Josep. 1998. Mood at the interface. PhD dissertation, Uil OTS/Universiteit Utrecht.
- Quer, Josep. 2001. Interpreting mood. *Probus* 13: 81–111.
- Quer, Josep. 2006. 68. Subjunctives. In *The Blackwell companion to syntax*, ed. M. Evaraert and H. van Riemsdijk, 660–684. Malden, MA: Blackwell.
- Reinhart, Tanya. 1983. *Anaphora and semantic interpretation*. Chicago: The University of Chicago Press.
- Reinhart, Tanya, and Eric Reuland. 1993. Reflexivity. *Linguistic Inquiry* 24: 657–720.
- Rizzi, Luigi. 1990. On the anaphor-agreement effect. *Rivista di Linguistica* 2: 27–42.
- Roeder, Carolin F., and Björn Hansen. 2006. Modals in contemporary Slovene. *Wiener Slavistisches Jahrbuch* 52: 153–170.
- Rögnvaldsson, Einar. 1998. The syntax of the imperative in Old Scandinavian. Manuscript, University of Iceland.
- Rus, Dominik. 2005. Embedded imperatives in Slovenian. *Georgetown University Working Papers in Linguistics* 4: 153–183.
- Ruwet, Nicolas. 1984. Je veux partir/*je veux que je parte. *Cahiers de grammaire* 7: 74–138.
- Ruwet, Nicolas. 1991. *Syntax and human experience*. Chicago: The University of Chicago Press.
- Sadock, Jerrold M., and Arnold M. Zwicky. 1985. Speech act distinctions in syntax. In *Language typology and syntactic description*, vol. 1, ed. T. Shopen, 155–196. Cambridge: Cambridge University Press.
- Safir, Ken. 2004. *The syntax of anaphora*. Oxford: Oxford University Press.
- Schlenker, Philippe. 1999. Propositional attitudes and indexicality: A cross-categorical approach. PhD dissertation, MIT.
- Schlenker, Philippe. 2003. A plea for monsters. *Linguistics and Philosophy* 26 (1): 29–120.
- Schlenker, Philippe. 2005a. The Lazy Frenchman's approach to the subjunctive. In *Romance languages and linguistic theory 2003: Selected papers from 'Going Romance' 2003, Nijmegen, 20–22 November*, ed. T. Geerts, I. van Ginneken, and H. Jacobs, 269–310. Amsterdam: John Benjamins.
- Schlenker, Philippe. 2005b. Non-redundancy: Towards a semantic reinterpretation of binding theory. *Natural Language Semantics* 13: 1–92.
- Schwager, Magdalena. 2006. Interpreting imperatives. PhD dissertation, University of Frankfurt.
- Searle, John R. 1976. A classification of illocutionary acts. *Language in Society* 5 (1): 1–23.
- Sharvit, Yael. 2011. Covaluation and unexpected BT effects. *Journal of Semantics* 28: 55–106. <https://doi.org/10.1093/jos/ffq012>.
- Sheppard, Milena Milojević, and Marija Golden. 2002. (Negative) imperatives in Slovene. In *its interaction with the verbal system* (Linguistics Today, vol. 47), ed. S. Barbiers, F. Beukema, and W. van der Wurff, 245–260. Amsterdam: John Benjamins.
- Speas, Peggy. 2004. Evidentiality, logophoricity and the syntactic representation of pragmatic features. *Lingua* 14 (3): 255–276.
- Speas, Peggy, and Carol Tenny. 2003. Configurational properties of point of view roles. In *Asymmetry in grammar*, ed. A.M. Di Sciulo, 315–343. Amsterdam: John Benjamins.
- Stegovec, Adrian. 2017. !? (Where's the ban on imperative questions?). In *Proceedings of SALT 27*, ed. D. Burgdorf, J. Collard, S. Maspong, and B. Stefánsdóttir, 153–172. Ithaca, NY: CLC Publications.
- Stegovec, Adrian, and Magdalena Kaufmann. 2015. Slovenian imperatives: You can't always embed what you want! In *Proceedings of Sinn und Bedeutung 19*, ed. E. Csapak and H. Zeijlstra, 621–638. Göttingen: LinG.
- Stephenson, Tamina. 2010. Control in centred worlds. *Journal of Semantics* 27 (4): 409–436. <https://doi.org/10.1093/jos/ffq011>.

- Stojanovic, Isidora. 2012. The problem of de se assertion. *Erkenntnis* 76 (1): 49–58. <https://doi.org/10.1007/s10670-011-9350-7>.
- Sundareshan, Sandhya. 2011. A plea for syntax and a return to first principles: Monstrous agreement in Tamil. In *Proceedings of SALT 21*, ed. N. Ashton, A. Chereches, and D. Lutz. Ithaca, NY: CLC Publications.
- Sundareshan, Sandhya. 2012. Context and (co)reference in the syntax and its interfaces. PhD dissertation, University of Tromsø and University of Stuttgart.
- Szabolcsi, Anna. 2009. Overt nominative subjects in infinitival complements in Hungarian. In *Approaches to Hungarian 11: Papers from the 2007 New York conference*, ed. M. den Dikken and R.M. Vago, 251–276. Amsterdam: John Benjamins.
- Szabolcsi, Anna. 2010. Infinitives vs. subjunctives: What do we learn from obviation and from exemptions from obviation? Manuscript, NYU.
- Thomas, Guillaume. 2012. Embedded imperatives in Mbyá. In *Proceedings of NELS 43*, ed. H. L. Huang, E. Poole, and A. Rysling, 181–194. Amherst, MA: GLSA.
- Tóth, Enikő. 2007. The imperative and the subjunctive proper in Hungarian. *Sprachtheorie und Germanistische Linguistik* 17 (2): 125–145.
- von Fintel, Kai, and Sabine Iatridou. 2017. A modest proposal for the meaning of imperatives. In *Modality across categories*, ed. A. Arregui, M.L. Rivero, and A.P. Salanova, 288–319. Oxford: Oxford University Press.
- von Stechow, Arnim. 2003. Feature deletion under semantic binding: Tense, person, and mood under verbal quantifiers. In *Proceedings of NELS 33*, ed. M. Kadowaki and S. Kawahara. Amherst, MA: GLSA.
- von Stechow, Arnim. 2004. Binding by verbs: Tense, person and mood under attitudes. In *The syntax and semantics of the left periphery*, ed. H. Lohnstein and S. Trissler, 431–488. Berlin: de Gruyter.
- Woolford, Ellen. 1999. More on the anaphor agreement effect. *Linguistic Inquiry* 30 (2): 257–287.
- Wurmbrand, Susi. 1999. Modal verbs must be raising verbs. In *Proceedings of WCCFL 18*, ed. S. Bird, A. Carnie, J. Haugen, and P. Norquest, 599–612. Somerville, MA: Cascadilla Press.
- Zanuttini, Raffaella. 1997. *Negation and clausal structure*. Oxford: Oxford University Press.
- Zanuttini, Raffaella. 2008. Encoding the addressee in the syntax: Evidence from English imperative subjects. *Natural Language & Linguistic Theory* 26: 185–218.
- Zanuttini, Raffaella, Miok Pak, and Paul Portner. 2012. A syntactic analysis of interpretive restrictions on imperative, promissive, and exhortative subjects. *Natural Language & Linguistic Theory* 30: 1231–1274.
- Zu, Vera. 2016. Competition and obviation from French to Newari. In *Proceedings of NELS 46*, ed. C. Hammerly and B. Prickett, 329–342. Amherst, MA: GLSA.
- Zu, Vera. 2018. Discourse participants and the structural representation of the context. PhD dissertation, NYU.

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