Obviā et Imperā!

A case for 'perspectival control' in directive clauses

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1 Introduction

Both in syntactic and semantic work, subjunctive clauses are typically discussed primarily as complements of attitude predicates. The inverse is true of imperative clauses, the semantic and syntactic analyses of which tend to be based on their behavior in matrix contexts. This is partly due to the idea that imperatives can only occur in root/matrix environments. However, even researchers who do not subscribe to this view usually conduct analyses of imperatives considering primarily their behavior in matrix contexts. This paper takes a different route, and looks at the syntactic and semantic behavior of imperatives and subjunctives (specifically directive subjunctives) by treating them as a unified clause type (directive clauses) and focusing on both matrix and embedded contexts. This kind of comparison can be made within a single language in Slovenian. In Slovenian, which is the main focus of this study, imperatives can appear as clausal complements in speech reports. In addition to that, directive subjunctives function as surrogate imperatives when the use of imperatives is blocked, and can also occur in both matrix and embedded contexts.

The interesting fact about Slovenian directive clauses is that whether they are imperatives or subjunctives, they both display the same kind of restrictions on subject selection. In embedded contexts, the subject of a directive clause cannot be coreferential with the matrix context. This restriction, called *subject obviation*, has been previously discussed mostly in relation to subjunctive embedding, and not observed with imperatives. A similar restriction arises with all directive clauses also in matrix contexts, namely: the subject of a matrix directive clause cannot be first person exclusive. I will argue in this paper that both restrictions are manifestations of the same phenomenon, a *generalized subject obviation*. I propose that the restriction arises due to a binding restriction which applies between the subject of directive clauses and a perspectival *PRO* in the specifier of MoodP. I suggest that this *PRO* is required for the interpretation of a directive operator in Mood⁰ and serves as a grammatical representation for the source of the directive speech act realized by directive clauses. As such it is semantically bound by either an expression referring to the speaker, in matrix clauses, or the matrix subject in embedded clauses. The latter is a parallel to subject control constructions. I show that this analysis not only derives the generalized subject obviation effect, but that it also correctly predicts other restrictions that occur with directive clauses, such as

the absence of the exclusive first person subject ban in questions. The ban is correctly predicted to apply to second person subjects in questions instead, which explains the cross-linguistic absence of imperatives in matrix questions.

The paper is structured as follows. Section 2 presents the empirical generalizations, and Section 3 is a short overview of previous accounts of subject obviation and restrictions on imperative subjects. Section 4 proposes a unification of subject obviation and the exclusive first person subject ban and focuses mainly on the syntactic aspects of directive clauses. Section 5 offers the semantics for directive clauses which I suggest gives rise to the restriction discussed in the previous section. Section 6 presents some possible extensions of the account. Section 7 concludes the paper.

2 The phenomena in question

Broadly speaking, this paper deals with *directive clauses*, which I take to be a cover term for any syntactic construction whose canonical function is a *directive speech act*. One of the points I will make in this paper is that most traditional definitions of directive speech acts, *directives* for short, like the one in (1) below, are too restrictive and do not cut out a natural class of clause type.

(1) *Directives*. The illocutionary point of these consists in the fact that they are attempts [...] by the speaker to get the hearer to do something. (Searle 1976, 11).

According to the definition in (1), the only kind of construction with a canonical directive function would be 2^{nd} person imperatives. However, I will argue below, that directive speech acts should not be restricted to cases where the addressee is included in the subject of the directive clause. The alternative definition of a directive speech act, that I will assume in this paper is provided in (2).

(2) Directive Speech Act. A speech act where the speaker of a context c attempts to make an individual or group of individuals ensure that the propositional content expressed by the utterance is realized.

This broader definition extends the list of possible subjects to include 1st and 3rd person arguments, which also means that in most languages a directive clause will not be restricted to using verbs from the imperative paradigm. This will be crucial in the discussion of Slovenian below, where I propose that both imperatives and dedicated directive subjunctives are possible morpho-syntactic manifestations of a directive clause.

2.1 Embedded imperatives

There is a long standing tradition in linguistics which singles out imperative clauses as a sentence type that cannot be syntactically embedded. This view is explicitly endorsed by, among many others, Sadock and Zwicky (1985), Han (2000). In the last 10 to 15 years, this view has been challenged empirically with numerous examples of languages that allow imperative embedding. A short list of these languages includes: 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 some consider this controversial) even English (Crnič and Trinh 2009a,b).

With all these languages, verbs that are part of the language's imperative paradigm — marked by dedicated imperative morphology or otherwise morpho-syntactically distinct from non-imperative verbs — can appear as the main verb in embedded clauses which are clearly not direct quotations. Of course, one could argue that the morpho-syntactic identity between matrix imperatives and their embedded counterparts is purely coincidental, and that the verb in those embedded clauses is not a "true" imperative. As a response to this hypothetical objection, I show below on the example of Slovenian, also the main focus of this paper, that the alternative explanation does not hold up.

As with the languages listed above, Slovenian imperative verbs may also appear in embedded contexts which are not direct quotations. This has been previously noted and discussed by Sheppard and Golden (2002), Dvořák (2005), Rus (2005), Dvořák and Zimmermann (2008) (see references also for more evidence not discussed in this paper). Sheppard and Golden (2002) note that imperative verbs can be embedded in Slovenian at least in: restrictive relative clauses, illustrated in (3a), speech reports, illustrated in (3b), as well as argument clauses, and adnominal complement clauses.

- (3) a. To je film, ki si ga ogle-j čimprej. <u>Slovenian</u> this AUX.3.SG film which self.DAT it.ACC see-IMP.(2.SG) a.s.a.p 'This is a/the film which you should see as soon as possible.'
 - b. Rekel je, da dela-j bolje.
 said.sg.m AUX.3.sg that work-IMP.(2.sg) better
 'He said that you must work better.' (251; Sheppard and Golden 2002)

The presence of the complementizer 'da' ('that') in (3b) shows that the example is not a direct quotation, since 'da' is incompatible with direct quotations in Slovenian. This is shown in the non-imperative examples in (4) and (6):. In example (4a) we see that, as expected from a direct quotation, indexicals are obligatorily interpreted as "shifted" to the original utterance context (see Schlenker 2011, for an overview of indexical shifting). This means that the 1st person indexical refers to the speaker in the original context (Luka) and not the actual speaker of the whole utterance (Marko). Conversely, in (4b), where 'da' is present, the 1st person indexical cannot be shifted and must refer to the actual speaker, so the embedded clause cannot be interpreted as a direct quotation.

- (4) a. Marko $_k$: Luka $_i$ je rekel, "Kreten sem $_{i,*k}$."

 Luka.NOM AUX.3.SG said.SG.M idiot AUX.1.SG

 'Luka $_i$ said " I_i am an idiot."
 - b. Marko $_k$: *Luka $_i$ je rekel, da "Sem $_i$ kreten." Luka.Nom AUX.3.sG said.sG.M that AUX.1.sG idiot 'Luka $_i$ said (that) " I_i am an idiot."

Consider now the examples in (6), which are given as possible reports of (5). Both sentences are grammatical in isolation, but only (6b) is a felicitous report of (5), because embedded 1P in (6a) cannot refer back to the original speaker of (5) (*Luka*), it can only refer to the speaker of (6a).

(5) Luka_i: Kreten sem_i! idiot AUX.1.SG 'I'm an idiot!'

¹As a convention for marking reference in *pro*-drop languages like Slovenian, I mark indices on person marking elements whenever the subject is dropped — either verbs or auxiliaries. This convention is not used to reflect the absence of a subject in the syntax, it is merely an attempt of making example sentences less cumbersome by avoiding the inclusion of silent pronouns in the first line of the gloss.

- (6) a. # Luka $_i$ je rekel, da sem $_{*i}$ kreten Luka.Nom AUX.3.sG said.sG.M that AUX.1.sG idiot 'Luka $_i$ said that $I_{*i,k}$ am an idiot.''
 - b. Luka_i je rekel, da je_i kreten. Luka.Nom AUX.3.SG said.SG.M that AUX.3.SG idiot 'Luka_i said that he_{i,k} is an idiot."

What we also see is that with 'da'-embedding, the auxiliary is placed before the verb in both (6a) and (6b), and not after the verb as in (5). This is because the auxiliary must surface in the second clausal position, as it is a second potion clitic (see, among others, Franks and King 2000), and the first clausal position is occupied by 'da'. The embedded clause is thus not "syntactically frozen", as is typically the case in direct quotations, so parts of it can be displaced with respect to their position in the reported original utterance.

Let us now apply the same test with reported imperatives. The examples in (7) simulate a possible scenario where an imperative uttered at an earlier point in time (7a) is reported by the same speaker (7b). As we see in (7b), the 2^{nd} person imperative subject can only refer to the actual addressee (*Luka*), and not the original addressee (*Marko*). In parallel to the indicative example in (6a), indexicals cannot be shifted with the embedded imperative. The sentence in (7b) is thus infelicitous in this context as it does not accurately report of the original utterance in (7a).

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(7) a. Pero_i \Rightarrow Marko_j: Pokliči_j me_i! call.IMP.(2.SG) 1.SG.ACC 'Call me!'
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b. $\operatorname{Pero}_i \Rightarrow \operatorname{Luka}_k$: # Markotu $_j$ sem $_i$ rekel, da me $_i$ pokliči $_{*j,k}$.

Marko.dat aux.1.sg said.sg.m that 1.sg.acc call.Imp.(2.sg)

'I said to Marko that you (Luka) should call me.'

Things are different in (8). This pair of sentences illustrates a felicitous use of an embedded imperative to report a prior directive speech act. In (8a) we have the original utterance, a non-imperative directive clause (see Sections 2.2 and 2.3 for more details), while its accurate report is given underneath in (8b). Crucially, indexicals are not shifted in the report (1^{st} person = Marko; 2^{nd} person = Luka), but also the imperative is felicitously used to report an utterance which did not contain an imperative verb. This should not be possible if (8b) were a direct quotation.

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(8) a. \operatorname{Pero}_i \Rightarrow \operatorname{Marko}_j: Naj \operatorname{te}_j obišče_k!

LET 2.SG.ACC visit.3.SG

'He should visit you!'
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b. $Marko_j \Rightarrow Luka_k$: $Pero_i \quad mi_j \quad je \quad rekel, \quad da \quad me_{*i,j} \quad obišči_{*j,k}$. $Pero.NOM\ 2.SG.DAT\ AUX.3.SG\ said.SG.M\ that\ 1.SG.ACC\ visit.IMP.(2.SG)$ 'Pero said to me that you (= Luka) should visit me.'

Embedded imperatives in Slovenian thus consistently pattern with reported speech and not direct quotations.³ This is further evidenced by the possibility of syntactic extraction. With the examples

The arrow "⇒" marks the speaker and addressee of the utterance — the former appears to the left of the arrow, and the latter to its right.

 $^{^{3}}$ Of course, imperatives can also be used in direct quotations, where they pattern the same way as direct quotations of indicatives, and as with indicatives, direct quotations are impossible when 'da' is present.

of *wh-movement* in (9) and *focus movement* in (10) we can see that syntactic movement from the embedded imperative into the matrix clause is possible. We would not expect this to be possible if the imperative clauses were really direct quotations.

- (9) Koga_i sem rekel, da pokliči t_i ? whom.ACC AUX.1.SG say.SG.M, that call.IMP.(2.SG) Who did I say that you should call?
- (10) $Markota_i$ sem rekel, da pokliči t_i !

 Marko.ACC AUX.1.SG say.SG.M, that call.IMP.(2.SG)

 It was Marko that I said you should call! (623; Stegovec and Kaufmann 2015)

So, we have seen that imperative verbs in embedded environments in Slovenian are not restricted to direct quotations. But how do we know these such constructions are not merely identical to imperatives on the surface, and are not actually "true" imperatives? If this were the case, one could still maintain at least a weakened version of the imperative embedding ban. Presumably, this would also mean that they should be distinguishable from "true" imperatives either by meaning or function.

With this in mind, let us consider the example of imperative embedding in (8). In the original utterance, *Pero* uses the directive clause (8a) in the sense of (2): He wants to bring about the course of events in which *Luka* visits *Marko*, where '*Luka visits Marko*' shall be *P*. Because *Luka* is not the addressee, *Marko* himself is expected to convey the message to *Luka*, and he does so by addressing *Luka* with (8b). The embedded imperative in (8b) is then a speech act uttered to ensure that the prejacent *P* takes place — it is a directive speech act itself, and not merely a report of (8a).

In fact, embedded imperatives in Slovenian have the same canonical function as matrix imperatives, they are directive clauses. This seems to further weaken the view that imperative embedding is impossible, as is requires the skeptic to take a further step back and say that on top of the coincidental match in morphological form, the function/meaning of "fake" (embedded) imperatives also coincidentally matches that of 'true" (matrix) imperatives. If we assume this is the case, and there is no principled reason why it should not be, what is left of the supposed universal ban on embedded imperatives? It cannot be a ban on the embedding of clauses with the particular verb form or syntax associated with imperatives, nor can it be a ban on the embedding of constructions which have the same canonical function as imperatives. There is no real way to falsify the universal ban on embedded imperatives once we weaken it to this point. I will thus approach the problem from the other end. I will assume that matrix and embedded imperatives in Slovenian are the same construction, and proceed to show what we can learn about imperatives by doing so.

Working under the assumption that imperatives share the same syntactic and semantic content whether they occur in matrix or embedded environments, allows us to explore the effects that embedding has on imperatives. A very interesting effect can be observed with cases of so called "speaker distancing". As originally noted by Stegovec and Kaufmann (2015), in matrix imperatives the speaker cannot distance him or herself from the directing act (11a) (see also Condoravdi and Lauer 2012). In an embedded imperative it is again the distancing by the original speaker that is infelicitous, as seen in (11b), while distancing by the actual speaker is entirely fine, as seen in (11c).

(11) a. # Pojdi stran! Ampak nočem, da greš.
go.IMP.(2.SG) away but not.want.1.SG that go.IND.2.SG
'Go away! But I don't want you to go.'

- b. #Rekel je_i, da pojdi stran in dodal da noče_i, da greš. said.SG.M AUX.3.SG that go.IMP.(2.SG) away and added that not.want.3.SG that go.2.SG 'He said that you should go away and added that he doesn't want you to go.'
- c. Rekel je_i, da pojdi stran ampak nočem_i, da greš. said.sg.M AUX.3.sg that go.IMP.(2.sg) away but not.want.3.sg that go.2.sg 'He said that you should go away, but I don't want you to go.'

In Stegovec and Kaufmann (2015) we suggested that the contrast between (11b) and (11c) reveals a violation of *Shift Together* (see Anand and Nevins 2004), with the embedded clause containing both shifted and non-shifted indexicals. We saw that in Slovenian indexicals in true embedded clauses cannot be shifted to the original context, but in the case of (11c) the embedded subject (addressee) is not shifted, while the *source* of the directing act, or *director*, seems to be shifted to the original context, as evidenced by the distancing ban — distancing concerns the original speaker (the matrix subject), and not the actual one (the individual that utters the sentence in (11c)).

I will argue in this paper for an alternative analysis of the distancing ban asymmetry, based on the analysis of imperatives and subjunctives proposed in Section 5. I will argue that the distancing ban is actually connected to the phenomena which are the main focus of this paper, namely subject obviation and restrictions on subject selection in directive clauses, which I discuss next.

2.2 Subject obviation

In several languages, when a subjunctive clause is embedded under a volitional or directive verb, a ban on coreference between the embedded and matrix subject is observed. This is illustrated with the Spanish examples in (12), where the embedding of a subjunctive is banned when its subject is coreferential with the subject of the embedding verb (12a) and grammatical otherwise (12b).

(12) a. * Queremos_i [que ganemos_i].

want.1.PL that win.SUB.PRS.1.PL

int.: 'We want to win.'

b. Queremos_i [que ganen_k]. want.1.PL that win.SUB.PRS.3.PL 'We want them to win.'

(662; Quer 2006)

Spanish

This phenomenon is standardly called *subject obviation*,⁴ and I will refer to it with the abbreviation *SOb* throughout the paper. The term is meant to capture the fact that the coreference restriction applies only between the two subjects. As illustrated in (13), if the matrix object and the subject of an embedded subjunctive are coreferential, the result is perfectly grammatical.

- (13) a. Les_i pidió_k [que se callaran_i]. Spanish to.them ask.PST.3.SG that REFL be.quiet.SUB.PST.3.PL 'S/he asked them to be quiet.' (662; Quer 2006)
 - b. Elisa_i forzó al niño_k a [que tomara_k la medicina]. Elisa forced.3.sG to.the child to that take.sub.prs.3.sG the medicine 'Elisa forced the child to take the medicine.' (1791; Kempchinsky 2009)

⁴It is also sometimes referred to as the *disjoint reference* effect. However, I prefer to use subject obviation, as it is a more accurate description of the phenomenon observed in (12) — it references that it is restricted to subjects.

Unlike Spanish, Slovenian does not have a special subjunctive verbal paradigm, but it does have a construction which appears in some of the same environments where subjunctive verbs are used in languages with a subjunctive paradigm.⁵ This construction is not traditionally identified as a subjunctive in the literature; it is sometimes called an *optative construction* or even an *analytic imperative* (see Roeder and Hansen 2006, for discussion and references) — we will see below that the latter description is actually very telling. However, due to its syntactic distribution and canonical function, I refer to this construction as the *directive subjunctive*, henceforth abbreviated as SUB_{dir}.

The SUB_{dir} construction involves an agreeing present indicative verb, and the particle 'naj'. ⁶ It is typically used in embedded directives when imperatives cannot be due to a paradigmatic gap (see also Sections 2.3 and 4.2). Importantly, this construction not only appears in contexts where subjunctives may occur cross-linguistically, it also triggers SOb. This is seen in (14): the embedded SUB_{dir} is grammatical in (14a) as its subject is not coreferential with the matrix subject, while in (14b) the sentence is ungrammatical as both subjects are 1^{st} person singular and thus coreferential.

- (14) a. Rekla je_i , da naj si pomaga- m_k sam! said.sg.f AUX.3.sg that let self.dat help-1.sg alone.sg.m 'She said that I should help myself on my own!'
 - b. * Rekel sem_i, da naj si pomaga-m_i sam! said.sg.m AUX.1.sg that let self.dat help-1.sg alone.sg.m int.: 'I said that I should help myself on my own!'

There is also further evidence that this is not just a paradigmatic gap and not restricted to 1^{st} person subjects. The SOb effect is in fact also found with 3^{rd} person subjects. The sentence in (15) is infelicitous only if the matrix subject and the subject of the embedded SUB_{dir} are coreferential.

(15) Rekel je_i, da naj si pomaga_{k,*i} sam! said.sg.M AUX.3.sg that let self.DAT help.3.sg alone.sg.M 'He_i said that he_{k,*i} should help himself on his own!'

Given that in languages where SOb is typically studied embedding of imperatives is banned and subjunctives must be used as surrogate imperatives in embedded contexts, Slovenian provides a unique opportunity to see what happens when a language allows both embedded subjunctives and imperatives. Interestingly, imperatives (henceforth IMP_{dir}) appear to pattern in line with SUB_{dir} in Slovenian, in that they are also restricted by SOb when embedded. As observed originally in Stegovec and Kaufmann (2015), the subjects of the embedding matrix verb and the embedded IMP_{dir} clause cannot both be 2^{nd} in Slovenian, illustrated in (16), that is, they cannot be coreferential.

(16) * Rekel si_i , da si pomaga- j_i sam! said.sg.M AUX.2.sg that self.DAT help-IMP.(2.sg) alone.sg.M int.: 'You said that you should help yourself on your own!'

⁵Subjunctives are typically embedded under volitional and other attitude predicates, and sometimes occur in special matrix contexts (see Schlenker 2005a, Quer 2006, Kempchinsky 2009, Costantini 2014, for details). What is crucial here are cases of subjunctives serving as "surrogate imperatives" (Zanuttini 1997) when the use of imperatives is blocked for some reason. My motivation for calling the *naj*-construction a subjunctive is that the latter is a subset of the environments where subjunctives can occur. I leave open whether or not the split between infinitive/indicative/imperative/subjunctive mood is sufficient for all the variation in sentence types that can be observed cross-linguistically.

⁶This modal particle, called a 'semi-modal' by Roeder and Hansen (2006), historically arose as the reduced form of *nexaj, the imperative of *nexaj 'to let, to allow' (Snoj 2003, Roeder and Hansen 2006).

Just like with SOb in Spanish, the coreference restriction holds only between subjects, as shown by (17) — the matrix indirect object can be coreferential with the embedded IMP_{dir} subject. The coreference restriction in embedded imperatives is thus entirely parallel to SOb with subjunctives.

(17) Rekel (ti_i) je_k, da $mu_{k,l}$ pomaga-j_i sam! said.sG.M (you.DAT) AUX.3.sG that him.DAT help-IMP.(2.sG) alone.sG.M 'He_k said (to you_i) that you_i should help him_{k,l} on your own!'

The fact that both embedded IMP_{dir} constructions and "surrogate" SUB_{dir} constructions pattern alike with respect to SOb will help us determine what the relation is between the complementary distribution of IMP_{dir} and SUB_{dir} and the existence of SOb effects with both constructions.

2.3 Restrictions on subject selection in matrix imperatives and subjunctives

In Slovenian, the imperative verbal paradigm is restricted to 2^{nd} and 1^{st} person (henceforth 2P and 1P respectively) subjects, with some interesting systematic gaps in the paradigm. But before we can discuss the gaps let us examine the canonical imperatives in Slovenian, that is 2P imperatives.

The Slovenian imperative verb agrees in number and, with plural and dual (henceforth PL and DU) forms, in person with the subject (SU). This is illustrated in (18), where we see examples of imperative verbs with a 2P subject for three different number values.⁷ In all three cases, we can identify the imperative morpheme -j-, and the standard indicative agreement suffix⁸ (see also Table 1). The examples also show the syntactic presence of a subject through the licensing of the subject oriented anaphor, and the inflected adverb which co-varies with the gender of the subject.

- (18) a. Pomaga-j si sam(-a)! SU = ✓2P.SG help-IMP.(2.SG) self.DAT alone.SG.M/-SG.F 'Help yourself on your own!'
 - b. Pomaga-j-te si sam-i/-e! SU = ✓2P.PL help-IMP-2.PL self.DAT alone-PL.M/-PL.F 'Help yourselves on your own!'
 - c. Pomaga-j-ta si sam-a/-i! SU = ✓2P.DU help-IMP-2.DU self.DAT alone-DU.M/-DU.F 'Help yourselves(dual) on your own!'

Although in Slovenian, the imperative paradigm extends to 1P subjects, the 1P subjects are restricted to inclusive 1P, such as in the sentence given in (19), where the 1P.PL subject can only be interpreted as including both the speaker (1P) and the addressee (2P). Because inclusive interpretations of 1P are only possible with non-singular subjects (in Slovenian, this means 1P.PL/DU subjects), there are also no 1P.SG imperatives, at least in Slovenian. For this reason, I refer to the ban on 1P.SG and exclusive 1P.PL/DU subjects of IMP_{dir} jointly as the ban on exclusive 1P subjects.

⁷The DU verb forms always pattern with PL in all the ways that are relevant for the topics discussed in this paper. For ease of exposition, I will only be providing full examples for SG and PL subjects from now on.

⁸The only gap is found with 2P.SG, which is interestingly a cross-linguistically very common property of imperative verbs. That is: agreement morphology being absent in imperatives verbs only for the 2P.SG forms.

	imperative		indicative	
	1P+2P	2P	1P(+2P)	2P
SG. PL. DU.	pomaga- j - <u>mo</u> pomaga- j - <u>va</u>	pomaga- j pomaga- j - <u>ta</u> pomaga- j - <u>ta</u>	pomaga- <u>mo</u> pomaga- <u>wa</u> pomaga- <u>va</u>	pomaga- <u>š</u> pomaga- <u>te</u> pomaga- <u>ta</u>

Table 1: A comparison of imperative and indicative verbal inflection

If we take the inclusive interpretation to literally reflect the syntactic presence of both 1P and 2P features, then we can generalize that the IMP_{dir} construction in Slovenian is restricted to clauses where the subject contains at least 2P features, which can then be extended to explain the absence of 3P imperatives. Crucially, the gap in the imperative paradigm does not mean that all directive clauses are restricted to 2P(+1P) subjects. In fact, the SUB_{dir} construction is used for directive speech acts when an imperative form is unavailable (as we already saw above). This is illustrated in (20) for a 3P subject, which can also be a full overt NP. The verb in SUB_{dir} constructions comes in a present indicative form and is obligatorily accompanied by the modal particle 'naj'.

(20) (Marko) **naj** <u>naredi</u> to sam! (Marko.Nom) let do.3.sG this alone.sG.M roughly: 'Marko/he should do it himself.'

As the sentences in (21) illustrate, the verb in the indicative form inflects for number and gender of the subject in SUB_{dir} constructions, while the modal particle always maintains the same form.

- (21) a. Naj si pomaga sam(-a)! SU = ✓3P.SG let self.DAT help.3.SG alone.SG.M/-SG.F 'He should help himself on his own!' / 'She must help herself on her own!'
 - b. Naj si pomaga-jo sam-i/-e! SU = ✓3P.PL let self.DAT help-3.PL alone-PL.M/-PL.F 'They should help themselves on their own!'

Crucially, the use of SUB_{dir} is restricted to the cases where an IMP_{dir} form is unavailable. That is, the existence of an IMP_{dir} form for a particular person value blocks the use of the SUB_{dir} when the subject has that person value. We see this illustrated with the examples in (22), where the SUB_{dir} is shown to be ungrammatical with a 2P.SG subject (22a), a 2P.PL/DU subject (22b), and a 1P.PL/DU subject (22c), despite the fact that verb forms that agree with these subjects exist for the indicative verb, which is the verb form used in SUB_{dir} constructions.

(22) a. * Naj si pomaga-<u>š</u> sam(-a)! SU = **X**2P.SG let self.DAT help-<u>2.SG</u> alone.SG.M/-SG.F int.: 'Help yourself on your own!'

b. * Naj si pomaga-<u>te</u> sam-i/-e! SU = **X**2P.PL let self.DAT help-<u>2.PL</u> alone-PL.M/-PL.F int.: 'Help yourselves on your own!'

'pomagati' (to help)	singular	dual	plural
$1+2P (IMP_{dir})$ $2P (IMP_{dir})$ $3P (SUB_{dir})$	pomaga- j naj pomaga	pomaga- j -va pomaga- j -ta naj pomaga-ta	pomaga- j -mo pomaga- j -te naj pomaga-jo

Table 2: The full paradigm of matrix directive constructions in Slovenian

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c. * Naj si pomaga-<u>mo</u> sam-i/-e! SU = X1P.PL let self.DAT help-<u>1.PL</u> alone-PL.M/-PL.F int.: 'Let's help ourselves on our own!'
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Note, however, that even though the IMP_{dir} is used only with inclusive 1P subjects, (22c) is ungrammatical even with an exclusive interpretation of the 1P.PL subject. This connects to another systematic gap, namely the absence of 1P.SG subjects. We already saw above that 1P.SG subjects are impossible with IMP_{dir} . So if IMP_{dir} and SUB_{dir} truly have a complementary distribution, the SUB_{dir} should be available for 1P.SG subjects. But just as with exclusive 1P.PL/DU subjects, 1P.SG subjects seem to be systematically banned also with the SUB_{dir} construction, as seen in (23).

The restrictions on the subjects of IMP_{dir} and SUB_{dir} (summarized in Table 2) thus form a pattern of an almost complete complementary distribution between the two directive constructions, with one crucial exception: the exclusive 1P subject ban is active with both constructions.

This kind of pattern is not restricted to Slovenian, and seems to occur in other languages where subjunctives are used to fill a gap in the imperative verb paradigm. In the French examples in (24–26) (cf. Schlenker 2005a), we observe the same complementary distribution of matrix directive constructions. But note also another parallel: there is no 1P.SG or exclusive 1P.PL example.

- a. Que votre Altesse soit prudente! French that your Highness be.sub.3.sg cautious 'Let her majesty be cautious!'
 b. *No 3P imperative forms.
- a. * Que { tu / vous } { sois / soyez } prudent(-s)! that { you / you.PL } { be.sub.2.sg / be.sub.2.PL } cautious(-PL) int.: 'You (SG/PL) must be cautious!'
 b. { Sois / Soyez } prudent(-s)! { be.IMP.2.SG / be.IMP.2.PL } cautious(-PL) 'Be (SG/PL) cautious!'
- (26) a. * Que nous soyons prudents! that we be.SUB.1.PL cautious-PL int.: 'We should be cautious!'

⁹Interestingly, *naj*-constructions can occur with exclusive 1P subjects, but only when they are not used for directive speech acts. I discuss this briefly in Section 4.2, where I suggest those might be a different construction altogether.

b. Soyons prudents!
be.IMP.1.PL cautious-PL
'Let's be cautious!'

(280; Schlenker 2005a)

I will argue below that the consistent ban on exclusive 1P across IMP_{dir} and SUB_{dir} clauses is best analyzed together with subject obviation as part of a more general restriction. The complementary distribution, however, should be treated as a case of a language specific morpho-syntactic competition. This can explain why the former seems to be more or less consistent across languages, while the latter seems to vary with respect to the size of the imperative verbal in a particular language. But before I present this analysis, let us examine why existing approaches to subject obviation and imperative subjects are not able to straightforwardly capture the same generalization.

3 Previous analyses of SOb and imperative subjects

Subject obviation has been an important topic in generative linguistics at least since the early days of the Government and Binding approach, and a number of different analyses of SOb have been proposed over the years (see Costantini 2005, Quer 2006, for an overview). On the other hand, systematic analyses of the syntactic and semantic restrictions on imperative subjects have been until recently mostly non existent (but see Zanuttini 2008, Zanuttini et al. 2012, for both a brief overview and an influential analysis). Frequently, the problem of how the choice of imperative subjects is restricted is relegated to pragmatics, or even tacitly assumed to be a non-problem.

The Slovenian data discussed above is important in this regard, as it offers a unique testing ground for evaluating existent theories. Not only do we observe an interaction between imperatives and subjunctives in both matrix and embedded contexts, which is impossible in most languages, but we can also more clearly see what their relation to each other is. This rare set of conditions will be crucial for developing the analysis of the connection between SOb and the exclusive 1P subject ban.

3.1 SOb as Condition B

One of the two major approaches to subject obviation relates it directly to binding. The rationale behind this approach is to unify SOb with another binding restriction that restricts coreference relations between pronouns — Condition B (Chomsky 1981), given in a simple form in (27).

(27) **Binding Condition B.** A pronoun must be free in its binding domain.

Condition B is typically invoked to restrict coreference between an argument and a pronoun it c-commands within the same clause, which serves as a binding domain. The condition states, that in such configurations the pronoun cannot be bound by the other argument — the other argument cannot both c-command and be coreferential with the pronoun in its binding domain.

¹⁰The syntactic and semantic literature on Condition B is full of competing accounts, and it is beyond the scope of this paper to discuss them or to compare which one fits better with the proposed analysis of SOb (see, for instance, Lasnik 1989, Reinhart and Reuland 1993, Safir 2004, Schlenker 2005b, for some influential examples of post-Chomsky (1981) treatments of Condition B). But as the reader will see, the exact nature of Condition B is not crucial for my account of SOb. What matters is only the domain of its application, the elements it pertains to, and when it appears to be relaxed. More details concerning the role of Condition B in the proposed analysis of SOb will be given in Section 4.

However, what seems to be happening with SOb is that Condition B is applying to two arguments in different clauses, which should be two separate binding domains. That is why most Condition B approaches to SOb must assume that subjunctive verbs are inherently deficient in a way which forces an extension of the binding domain, which then spans both the matrix and the embedded subjunctive clause. Variations of this analysis were adopted, among others, by Picallo (1985), Rizzi (1990), Progovac (1993). The principle behind the domain extension can be illustrated as in (28): when the embedded verb is a regular finite verb, the binding domain only extends as far as the embedded clause, and no binding violation can take place between the two subjects (28a), but when the embedded verb is a subjunctive, its deficiency causes the binding domain to extend to the matrix clause, thus allowing Condition B to apply with respect to the two subjects (28b).

(28) a.
$$[CP \ \mathbf{SU}_i \ \mathbf{V}_{att} \ \underline{[CP \ \mathbf{SU}_i \ \mathbf{V}_{FIN}]}]$$
 b. $\underline{[CP \ \mathbf{SU}_i \ \mathbf{V}_{att} \ [CP \ \mathbf{SU}_{*i} \ \mathbf{V}_{SUB}]]}$ binding domain

Recall though that the coreference restriction only holds between the two subjects with SOb, and as we have presented it thus far, the extended domain approach predicts that any matrix object should now also be part of the binding domain for the embedded subjects, and should potentially also cause Condition B violations. That is why domain extension approaches all require an additional stipulation which ensures that any matrix object is not part of the extended binding domain. In the case of Picallo (1985), the embedded clause must be extraposed to a position above the matrix object, so that the matrix object no longer c-commands the embedded subject.

Not all approaches that reduce SOb to binding rely on domain extension though. An alternative that has been proposed is that SOb is essentially Condition B (or a comparable binding principle), but that the binding restriction does not occur between the two subjects directly. This is essentially the approach taken by Kempchinsky (1986, 2009) and Bianchi (2001). In this type of analysis, SOb is a restriction that occurs between the embedded subject and a subjunctive operator (or some other mediating element), which functions as a referential proxy for the matrix subject. ¹¹ This approach is schematized in (29). Because the subjunctive operator sits in a position within the same binding domain as the embedded subject, it may trigger a binding violation without domain extension.

(29)
$$[CP \ \mathbf{SU}_i \ \mathbf{V}_{att} \ \underbrace{[CP \ (\mathbf{Op\text{-}SUB}_i) \ [\mathbf{SU}_{i/*i} \ \mathbf{V}_{FIN/SUB}]]}_{\text{binding domain}}]$$

Of course, this all hinges on the operator being counted as an argument for the purposes of binding and it somehow being coreferential the matrix subject. Kempchinsky (1986, 2009) and Bianchi (2001) all offer very different accounts of how these conditions are satisfied.

This is also roughly the approach the I adopt in Sections 4 and 5. However, unlike Kempchinsky (1986, 2009) and Bianchi (2001) I extend this type of analysis to the subject restrictions in

 $^{^{11}}$ This is only a simplified sketch of such proposals. For instance, Bianchi (2001) argues that the SOb arises within the embedded clause as a clash between the referential requirements of the external logophoric center (Fin⁰) and those of the internal logophoric center (Mood⁰), which must be anaphoric to the matrix subject. Kempchinsky (2009) similarly proposes a set of intricate syntactic checking and selection interactions between the matrix V^0 , Force⁰ and Mood⁰, which again establishes an indirect relation between the two subjects, so that it is actually an operator in Fin⁰ that is responsible for SOb. What is common to all approaches of this type is that they all forego domain extension, and instead derive the SOb via a broadly construed "binding" violation that takes place within the embedded clause.

matrix directive clauses (the ban on exclusive 1P subjects), and suggest that it is not the subjunctive/imperative operator that triggers the binding violation, but a perspectival *PRO* in the specifier of MoodP. The need for this *PRO* will be tied to a semantic requirement of the operator in MoodP.

3.2 Competition approaches to SOb

The other main approach to SOb is the so called "competition approach", which reduces SOb to a case of blocking by infinitival subject control constructions. Adopted by, among others, Bouchard (1982), Farkas (1992), Schlenker (2005a), this approach assumes that infinitives must be selected over subjunctives in environments where the two subjects are coreferential.

More precisely, when a matrix attitude predicate denotes a *de se* attitude, a control infinitive must be used, as it the clause type directly associated with the expression of *de se* attitudes (30a) — for now it suffices to characterize *de se* attitudes as involving self identification by the attitude holder as the individual who has the property described by the embedded clause (see Section 5.3 for a more detailed description). The selection of infinitives in this environment then blocks the use of the subjunctive (30b), which is argued to express a broader notion of world dependency.

(30) a.
$$de \ se \ \mathbb{F}[CP \ SU_i \ V_{att} \ [CP \ SU_i \ V_{IFN}]]$$
 control clause embedding b. $de \ se \ * \ [CP \ SU_i \ V_{att} \ [CP \ SU_i \ V_{SUB}]]$ subjunctive clause embedding

The main advantages of the competition approach are, that it can capture the fact that SOb can be voided when a non *de se* reading of a coreferential embedded subject is coerced (cf. Schlenker 2005a, Szabolcsi 2010, Zu 2015), and that it is in principle compatible with an extension to matrix clauses (see Zu 2015, for an analysis of matrix clauses in a conjunct-disjunct marking language).

We can illustrate the principle of the competition approach with the French examples in (31). The use of a subjunctive with the person constellation in (31a) is blocked because the control infinitive in (31b) is the dedicated construction for *de se* subject constellations.

```
(31) a. * Je veux que je parte.

I want that I leave.SUB.1.SG
int.: 'I want for me to leave.'

b. Je veux partir.

I want leave.INF
'I want to leave.' (Szabolcsi 2010, 1)
```

The difference between the two is in the verb form, and that with the subjunctive the presence of the complementizer is obligatory and an overt subject is allowed. Otherwise, the two clauses are equivalent, and in the absence of SOb (31a) could easily express the same content as (31b).

Let us compare this to SOb in Slovenian. The first thing we can observe is that predicates that may select an embedded IMP_{dir} cannot also select infinitive complements. We see this with the contrast between (32a) and (32b), where we see that 'say' does not select infinitives in Slovenian.

- (32) a. Rekel sem (ti_i), da pomaga-j_i sestri. said.SG.M AUX.1.SG you.DAT that help-IMP.(2.SG) sister 'I told you that you must help your sister.'
 - b. * Rekel sem (ti_i) pomagati_i sestri. said.sg.m AUX.1.sg you.dat help.INF sister int.: 'I told you to help your sister.'

A fair objection that can be raised in relation to (32b) is that is in fact a case of object control, which is presumably not in competition with subjunctives because the complement is then an attitude related to the matrix object. But note that even if we try to adapt both constructions to conform to subject control configurations, as in (33), we see that an embedded imperative is banned due to SOb (33a), but this cannot be due to blocking by an infinitive, as an infinitive is also ungrammatical in the same configuration with the matrix verb 'say' (33b).

- (33) a. * Rekel si_i , da $pridi_i$ na obisk. said.sg.m AUX.2.sg that come.IMP.(2.sg) on visit 'You said that you must come visit.'
 - b. * Rekel si_i priti_i na obisk. said.sg.m AUX.2.sg come.INF on visit inf.: 'You said that you must come visit.'

Nothing also changes if we instead use a SUB_{dir} and a subject control infinitive, as in (34). The SUB_{dir} is impossible due to SOb (34a), but so is the subject control infinitive construction (34b).

- (34) a. * Rekel sem_i, da naj pomaga-m_i sestri. said.sg.m AUX.1.sg that let help-1.sg sister int.: 'I said that I must help my sister.'
 - b. * Rekel sem_i pomagati sestri. said.sg.m AUX.1.sg help.INF sister int.: 'I said to help my sister.'

On the flip side, it is also the case in Slovenian that infinitive selecting matrix verbs cannot select embedded imperatives or subjunctives. With the pair of sentences in (35), we see that 'want' can select an infinitive complement in (38a), but that a SUB_{dir} equivalent is impossible (38b).

- (35) a. Hočem_i pomagati_i sestri. want.1.SG AUX.1.SG help.INF sister 'I want to help my sister.'
 - b. * Hočem_i, da naj pomaga-m_i sestri. want.1.sG that let help-1.sG sister int.: 'I want that I must help my sister.'

Of course, in (35) we can not eliminate the possibility that the SUB_{dir} (38b) is banned exclusively due to SOb, since (38a) is blocking the use of a SUB_{dir} in the coreferential subjects configuration. If we, however, look at (36), we can see that even when the subject of 'want' and the embedded subject are not coreferential, both embedded IMP_{dir} (36a) and SUB_{dir} clauses (36b) are impossible.

- (36) a. * Hočem_i, da pomaga-j_k sestri. want.1.sG that help-IMP.(2.sG) sister int.: 'I want that you must help your sister.'
 - b. * Hočem_i, da naj pomaga_k sestri. want.1.sG that let help.3.sG sister int.: 'I want that he/she must help his/her sister.'

This is problematic for an account of SOb in Slovenian in terms of competition, as both IMP_{dir} and SUB_{dir} are systematically absent in the environments where competition could arise with control infinitives. It needs to be noted though that the cases of IMP_{dir} and SUB_{dir} embedding that are banned as SOb violations can be paraphrased with constructions that involve an infinitive verb. However, such paraphrases are, crucially, modal + infinitive constructions like the one in (37a), which is used to express the meaning of the ungrammatical (37b), which is excluded due to SOb.

- (37) a. Rekel si_i, da mora-š_i priti na obisk. said.SG.M AUX.2.SG that must-2.SG come.INF on visit 'You said that you must come visit.'
 - b. * Rekel si_i, da pridi_i na obisk. said.sg.m AUX.2.sg that come.IMP.(2.sg) on visit int.: 'You said that you must come visit.'

This point is important because the subject of these constructions can be an unbound *pro*, as in (38a), or even an overt NP (38b). Such constructions are also not restricted to canonical control contexts, as shown by (38c), a matrix clause with no apparent clausal embedding.¹²

- (38) a. Rekel si_i da mora- m_k priti na obisk. said.sg.m AUX.2.sg that must-1.sg come.INF on visit 'You said that I must come visit.'
 - b. Rekel si_i da mora Luka $_k$ priti na obisk. said.sg.m AUX.2.sg that must.3.sg Luka.nom come.INF on visit 'You said that Luka must come visit.'
 - c. Luka mora priti na obisk. Luka.NOM must.3.SG come.INF on visit 'Luka must come visit.'

Another piece of evidence which shows that SOb in Slovenian cannot be reduced to competition between infinitives and IMP_{dir}/SUB_{dir} constructions is the fact that a configuration similar to partial control is possible with embedded IMP_{dir} . In (39a) we see a standard case of SOb in an embedded imperative. Note now that the same embedded IMP_{dir} construction also allows a kind of partial control configuration with partial coreference between subjects, as shown in (39b), but only when the matrix subject is singular and the embedded subject is 1P.PL/DU (see also Sections 4.1 and 6.5).

- (39) a. * Rekel si_i , da zapo- j_i to pesem. said.sg.M AUX.2.sg that sing-IMP.(2.sg) this song int.: 'You said that you must sing this song.'
 - b. Rekel sem_i , da $zapo-j-mo_{i+k}$ to pesem. said.sg.m AUX.1.sg that sing-IMP-1.PL this song 'I said that we must sing this song.'
 - c. Rekel sem_i , da $\text{mora-mo}_{(i+)k}$ zapeti to pesem. said.sg.M AUX.1.sg that must-1.PL sing.INF this song 'I said that we must sing this song.'

¹²It might also be that in such constructions the modal verb 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). In any case, also with this analysis such constructions are not really obligatory control infinitives.

As Pearson (2012, 2015) points out, partial control infinitives can also be analyzed as involving a *de se* attitude. A competition approach to SOb then falsely predicts that a partial control infinitive should block the use of an embedded imperative in (39b). Even if we were to say that somehow the blocking effect arises in Slovenian with respect to the modal + infinitive construction, the modal + infinitive paraphrase of (39b) given in (39c) only allows partial coreference with the subject as an option, which contrasts with (39b) where it is the only possible interpretation. This means there is no blocking relation between (39b) and (39c), since partial coreference is possible with both.

To conclude, the fact that SOb occurs in Slovenian in cases where the IMP_{dir} or SUB_{dir} is not in direct competition with canonical control constructions is an issue for competition approaches to SOb, since the SOb effect cannot be derived as a case of blocking by a control infinitive or another construction restricted to rigidly *de se* interpreted subjects.

3.3 The exclusive 1P subject ban as a pragmatic restriction

Although to my knowledge no existing analysis of directive speech acts explicitly states this, one possible way to characterize the ban on exclusive 1P subjects in directive clauses is to argue that since typically directive speech acts are used to direct others, directing oneself is pragmatically odd.

I believe that this misses some important generalizations that can be made regarding the syntax and semantics of directive clauses. To borrow a similar objection from Zanuttini et al. (2012); by reducing the restrictions on the subjects of directive clauses to a pragmatic restriction (in their case they discuss only imperatives), we essentially stray away from one of the important goals of generative linguistics, which is to provide an autonomous, compositional theory of how each structure is generated and how that structure is associated with the meaning it has.

In this paper, specifically in Sections 4 and 5, I propose an analysis of the exclusive 1P subject ban that unifies it with SOb into a generalized SOb, which I argue is at its core a binding restriction. This proposal relies on the assumption that directive clauses do have a unique syntax and semantics which is directly responsible for giving rise to the generalized SOb effect, and we will also see that other properties of directive clauses follow from it. If we simply dismissed the restriction as pragmatic, this generalization and its consequences for other phenomena would be lost.

3.4 Positive syntactic constraints on imperative subjects

Zanuttini (2008) and Zanuttini et al. (2012) have argued that the person value of jussive (imperative, exhortative, or promissive) subjects is determined extrinsically. That is, its person features are valued by a dedicated Jussive⁰ syntactic head, which hosts valued person features. Specifically, Zanuttini et al. (2012) argue for Korean, that there are three kinds of jussive heads in the language, which differ in the kinds of valued person features they bear: imperative (2P), exhortative (1P+2P), and promissive (1P).¹³ The absence of exclusive 1P subjects in Slovenian, and all other languages with the exclusive 1P gap, could then be attributed to the absence of the promissive jussive head.

However, what we find in Slovenian, is not a universal ban on 1P subjects, but a ban on exclusive 1P subjects in matrix clauses. We see that with the contrast between the ungrammatical matrix (40a),

¹³In Korean, where embedded imperatives (and other jussives) are also possible, there is no SOb effect, as subjects of embedded jussives are typically coreferential with the matrix subject. This could in fact be connected also to the existence of promissives, provided they are 'true' exclusive 1P directive clauses, already shows that Korean directive clauses are different from Slovenian ones in interesting ways. I also discuss this briefly again in Section 6.2.

and the grammatical use of the same clause in an embedded context (40b). Furthermore, even in matrix contexts, the ban is lifted in questions, as in (40c) (I return to questions in Section 5.4).

- b. Rekla je_i, da naj si pomaga- \underline{m}_k sam! [=(14a)] said.sg.F AUX.3.sg that let self.DAT help- $\underline{1.sg}$ alone.sg.M 'She said that I must help myself on my own!'
- c. Naj si pomaga-<u>m</u> sam? let self.DAT help-<u>1.SG</u> alone.SG.M 'Must I help myself on my own?'

If the 1P gap truly resulted from the lack of a person value assigning Jussive⁰, we would not be able to explain why the restriction changes with respect to matrix or embedded contexts, or declarative and interrogative ones. But also, the parallelism between the exclusive 1P ban and SOb, which is discussed in the next section, would have to be treated as coincidental.

4 Generalized SOb

Before we turn to the unified analysis of SOb and the matrix subject restriction, let us first summarize the two phenomena by focusing on their similarities and differences. As we saw, SOb occurs in Slovenian with both embedded IMP_{dir} and SUB_{dir} constructions; as illustrated in (41) for IMP_{dir} , and in (42) for SUB_{dir} , the subjects of the matrix and embedded clause cannot co-refer.

(41) a.
$$X [_{CP1} SU_i \text{ said } [_{CP2} \text{ that } SU_i V_{IMP}]]$$
 [=(16)]
b. $I [_{CP1} SU_i \text{ said } [_{CP2} \text{ that } SU_k V_{IMP}]]$ [=(17)]
(42) a. $I [_{CP1} SU_i \text{ said } [_{CP2} \text{ that } naj_{SUB} SU_i V_{IND}]]$ [=(14b,15)]
b. $I [_{CP1} SU_i \text{ said } [_{CP2} \text{ that } naj_{SUB} SU_k V_{IND}]]$ [=(14a,15)]

Comparing this to matrix directive clauses, as they are illustrated in (43), we see that there is only one gap (for expository purposes the inclusive/exclusive distinction is left out). We see that despite the complementary distribution of IMP_{dir} and SUB_{dir} , there is one part of the paradigm where both are impossible, that is exclusive 1P subjects. This is shown in (43a) and (43d).

The main difference between the pattern in (43) and the one in (41) and (42) appears to be that the former appears to be regulated by person values, while the latter is first and foremost regulated by the reference of the subject, with person values only playing a role when the two subjects are of an identical person value and hence coreferential. But what if the situation is actually the reverse, and both patterns are in fact about reference, and the person restriction is an epiphenomenon?

In the embedded examples, the matrix subject *is* the speaker with respect to the original context. Like in their matrix equivalents the ban is that the subject of a directive clause cannot be the speaker — in this case the speaker in the original context. Based on this intuition, I propose below that both restrictions should be seen as a type of Condition B effect.

There are also other ways in which both SOb and the exclusive 1P subject ban seem to pattern with Condition B. Namely, they can be voided in some of the same ways as Condition B. Originally, it was suggested by Lasnik (1989) that in cases like (44a) neither Condition A nor B can be satisfied, and that Condition B applies because there is partial coreference between 'we' and 'me'. However, it was later pointed out (see, among many others, Reinhart and Reuland 1993, 676-677) that such partial referential overlap cases are not always bad, which can be seen for example in (44b).

```
(44) a. *We like { me. / myself. } b. We elected me.
```

At first glance, the coreference restriction in Slovenian directive clause seems to pattern with (44a). As we see in (45), the subject of the embedded IMP_{dir}/SUB_{dir} cannot be interpreted as coreferential with any of the individuals in the group of people encompassed by the 1P.PL (inclusive) subject. This seems to hold for 2P subjects of embedded IMP_{dir} (45a), as well as for 1P subjects (45b) and 3P subjects (45c) of embedded SUB_{dir} constructions.

- (45) a. * Rekli smo_{i+k} , da vpraša-j_i Marko-ta. said.PL.M AUX.1P.PL that ask-IMP.(2P.SG) Marko-ACC int.: 'We_{i+k} said that you_i must ask Marko.'
 - b. * Rekli smo_{i+k} , da naj vpraša- m_i Marko-ta. said.PL.M AUX.2P.SG that let ask-1p.sg Marko-ACC int.: 'We_{i+k} said that I_i must ask Marko.'
 - c. * Rekli smo_{i+k} , da naj vpraša_i Marko-ta. said.sg.M AUX.3P.sg that let ask.3P.sg Marko-ACC int.: 'We_{i+k} said that he_i must ask Marko.'

But as observed for examples (44b) in the literature, part of the reason behind their grammaticality in contrast to (44a) seems to lie in the mismatch between distributed and collective interpretations (see also Safir 2004, 94–96). This means that coreference is not blocked in (44b) because the interpretation of the plural subject is collective. Interestingly, this effect can be replicated with Slovenian directive clauses. If we interpret (46b) with respect to the context in (46a), the matrix subject must be interpreted as collective, and the partial coreference restriction is then voided.

- (46) a. [Context:] A group of coworkers voted on how to best acquire a particular piece of information, and is was decided that the addressee (who also voted) should ask their boss for the information. But the addressee immediately forgot what the decision they reached was, so another member of the group reminds him:
 - b. Rekli smo_{i+k} , da vpraša-j $_i$ šef-a. said.PL.M AUX.1P.PL that ask-IMP.(2P.SG) boss-ACC 'We said (= decided by vote) that you must ask the boss.'

And recall from Section 3.2 that partial coreference is allowed in Slovenian without special contexts when the matrix subject is a subset of individuals included in the group referenced by the 1P.PL/DU subject of the embedded IMP $_{dir}$. This is illustrated again with more examples in (47).

- (47) a. Rekel sem_i , da vpraša-j- mo_{i+k} Marko-ta. $\operatorname{said.sg.m}$ AUX.1P.SG that ask-IMP-1P.PL Marko-ACC 'I said that we must ask Marko.'
 - b. Rekel si_i , da vpraša-j- mo_{i+k} Marko-ta. said.sg.M AUX.2P.SG that ask-IMP-1P.PL Marko-ACC 'You said that we must ask Marko.'
 - c. Rekel je_i, da vpraša-j-mo_{i+k} Marko-ta. said.sg.m AUX.3P.SG that ask-IMP-1P.PL Marko-ACC 'He said that we must ask Marko.'

The fact that in such cases a special context is not required could be due to a number reasons. I do not have the space to go into more detail about this, so I will only consider one option that has been suggested in the literature. It has been observed that partial coreference is more readily available with 1P arguments (see Schlenker 2005b, 49–50), so it could be that in (47), like in (48), the collective reading much more salient due to the 1P.PL inclusive subject.

(48) I like us (as a couple).

It definitely seems that with matrix inclusive 1P.PL/DU subjects of directives, the collective reading is the only available one. The collective reading is what we get with the matrix IMP_{dir} in (49a), and it is my intuition that in order to express a distributive reading in a matrix directive clause in Slovenian, a 3P subject SUB_{dir} construction like (49b) with no trace of 1P must be used instead.

- (49) a. Vpraša-j-mo_{i+k} Marko-ta! ask-IMP-1P.PL Marko-ACC 'Let's ask Marko!'
 - b. Naj vsak_i zase vpraša_i Marko-ta! let each for.self ask.3P.SG Marko-ACC 'Let's each individually ask Marko!'

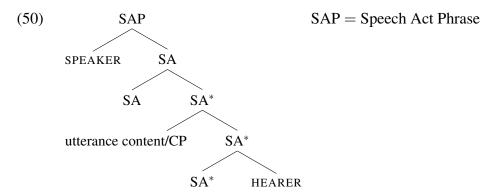
The discussion of partial coreference above does not offer any new insights into how it should be correctly analyzed, but it shows that SOb, as well as the exclusive 1P ban, in Slovenian directive clauses pattern consistently with Condition B. That is the reason why I argue in the following sections for an analysis that I unifies the two restrictions as a type of Condition B effect.

4.1 Generalized SOb as Condition B

We saw above that the ban on exclusive 1P subjects in matrix directives essentially mirrors SOb in that in both cases the subject of the directive seems to be restricted in a manner similar to Condition B. That is, if the binder is understood as either the matrix subject (SOb) or the actual speaker of the utterance (matrix restriction). And within some existing approaches such as the original *performative hypothesis* (Ross 1970), or the more current proposal by Speas and Tenny (2003), the speaker of an utterance is actually encoded in the syntax. So it may not be such a stretch to conceive of the speaker as playing a role in syntactic binding.

Let us consider Speas and Tenny's (2003) *Speech Act Phrase*, provided in a simplified version in (50), where the syntactic positions of speech act participants and content are modeled after argument structure: the speaker (SPEAKER) is "the subject" and sits in the specifier of SA, the utterance

content occupies is "the indirect object", while the hearer (HEARER) is "the direct object" in the complement of SA.¹⁴ The configuration between SPEAKER and the utterance content is thus parallel to that of the matrix subject of an attitude verb and the clause the verb embeds.



The exclusive 1P subject ban can then be stated as a parallel to SOb. This is illustrated in (51) and (52). If a subject of an IMP_{dir} is 2P, the result is grammatical because the subject is not coreferential with SPEAKER (51a), while if the subject is 1P, then a violation occurs (51b)

(51) a.
$$\checkmark$$
 [SAP SPEAKER_[=1P] SA [CP $pro_{[2P]}$ V_{IMP}]...] [=(18)]
b. \checkmark [SAP SPEAKER_[=1P] SA [CP $pro_{[1P]}$ V_{IMP}]...]

Similarly, in a matrix SUB_{dir} , a 3P subject does not trigger a binding violation with SPEAKER (52a). But if the same construction has a 1P subject a binding violation does take place (52b).

(52) a.
$$\checkmark$$
 [SAP SPEAKER[=1P] SA [CP najSUB pro[3P] V_{IND}]...] [=(21)]
b. \checkmark [SAP SPEAKER[=1P] SA [CP najSUB pro[1P] V_{IND}]...] [=(23)]

If we generalize both restrictions to SOb, we can then say that a binding violation occurs between the IMP_{dir}/SUB_{dir} subject and the *director*, i.e. the matrix subject in embedded directives or the actual speaker (SPEAKER) in matrix directives, when they denote the same entity.

But there is an issue that arises if we characterize "matrix SOb" as a direct ban on binding between the clauses subject and SPEAKER. Why should a comparable restriction then not apply also in non-directive clauses? One way out would be to assume an extension of the binding domain analogous to the one proposed in domain extension approaches to SOb discussed in Section 3.1. Recall though that there is an analysis of SOb in terms of Condition B that does not involve domain extension — the analysis where a subjunctive operator triggers SOb. And as I show below, this type of analysis can also be extended to matrix clauses without having to stipulate that only with directive clauses SPEAKER is somehow arbitrarily considered binder for Condition B.

There are independent reasons to believe that the meaning of subjunctives can be at least partly derived from the presence of a special operator in MoodP (Kempchinsky 1986, 2009, Bianchi 2001), which is positioned between the Tense and CP-field of a clause. Similar proposals have also been made regarding imperatives (Schwager 2006, Kaufmann 2012). Let us stipulate for the moment that this kind operator may be considered a binder for Condition B. This would then explain why SOb only occurs with particular constructions and clause types. I propose that (at least Slovenian) directive clauses, whether surfacing as IMP_{dir} or SUB_{dir} , always have the structure in (53).

¹⁴SA* marks SA before moving and projecting a second time, in a manner similar to Larson's (1988) "VP-shells".

(53)
$$[CP \ C \ [MoodP \ OP_{dir} \ [TP \ T \ [VP \ SU \ V \ [ApplP \ (IO) \ Appl \ [VP \ V \ (DO) \]]]]]]$$

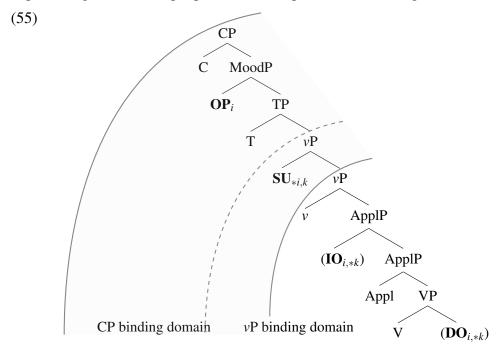
The semantics of such clauses, and OP_{dir} in particular, will be given below in Section 5, where I also propose that it is not OP_{dir} itself that triggers the binding violation, but a *PRO* in the specifier of MoodP. Pending that, it suffices to stipulate that OP_{dir} must always carry the referential information of the director — it is semantically bound by the speaker in matrix directives (cf. Kempchinsky 1986), as illustrated in (54a), and the matrix subject in embedded directives, as illustrated in (54b). Note that this are just rough sketches of the analysis, which is further developed below.

(54) a.
$$[SAP \text{ SPEAKER}_i \text{ SA } [CP \text{ C } [MoodP \text{ OP}_i \text{ } [TP \text{ T } [vP \text{ SU } v \text{ } [\dots]]]]]]]$$

b. $[vP \text{ SU}_i \text{ } v \text{ } [vP \text{ V}_{att} \text{ } [CP \text{ C } [MoodP \text{ OP}_i \text{ } [TP \text{ T } [vP \text{ SU } v \text{ } [\dots]]]]]]]]$

Recall that Condition B is a domain restricted binding condition, in that it is restricted to roughly the arguments of one clause. In this paper I suggest that perhaps the domain of Condition B should be characterized in terms of phases (Chomsky 2000, 2001). This may allow us to capture the fact that the subject and OP_{dir} are part of the same binding domain, but also that the subject and any internal argument are part of the same binding domain to the exclusion of OP_{dir} .

If we thus follow Chomsky (2000, 2001) and assume that CP and vP are phases, and further that both phases are separately the domains for Condition B, then the subject, introduced in Spec,vP — the phase edge, is in a unique position that is part of both binding domains, as shown in (55).



The position of the subject (SU) in Spec,vP means, that internal arguments (IO, DO) will trigger a Condition B violation if coreferential with SU, as they are within the vP binding domain. Likewise, SU will violate Condition B if coreferential with OP_{dir} . As OP_{dir} is bound by the director, which is the speaker in matrix contexts and the matrix subject in embedded contexts, the generalized SOb effect is derived. Crucially, if OP_{dir} is coreferential only with an internal argument, which is inaccessible to it because it is beyond the vP phase edge no Condition B violation should arise.

There is a potential issue here: any IO/DO can in principle move at least as high as Spec,vP and become accessible to OP_{dir} . One way to explain why they are never included in the CP binding

domain despite this option is to assume such movement is always focus-related. It is known that focus ameliorates SOb violations (cf. Quer 2006), which can be tied to the fact that focus can void certain binding violations (see for instance Eckardt 2002, Despić 2011, 2013, Charnavel 2015b). However, this analysis cannot be extended to IO/DO clitics, which under most analyses must move at least as high as SpecvP and typically cannot be focused. Another option is an alternative definition for binding domains which also singles out SU as inherently present in two binding domains. At this point, I have to leave this question open to be resolved in future work.

To summarize, if we assume IMP_{dir} and SUB_{dir} both involve a structure with OP_{dir} , we can explain why the generalized SOb occurs with both. We do not yet explain, however, why the two constructions are otherwise in a complementary distribution. This is explored in the next section.

4.2 What is left of competition?

The Slovenian imperative verb has a dedicated morpheme that marks it as being part of the imperative paradigm. But this is not always how imperative verbs are singled-out as a class cross-linguistically (see, among others, Rivero and Terzi 1995, Han 2000, Jary and Kissine 2014). Why then, do we have the intuition that there is a special imperative verbal paradigm in English despite the fact that that the imperative verb in English is indistinguishable from a bare infinitive? What does it mean for a verb to be part of an imperative paradigm if there is no imperative morphology in the language? In this section I suggest (in a modification of Rivero and Terzi 1995) that what makes a particular verbal paradigm imperative within a language is the presence of head movement to the directive operator OP_{dir} , which can be restricted within a language to particular person values of the subject. In languages like Slovenian, it is the OP_{dir} itself that is spelled-out as imperative morphology.

As we saw in Section 2.3, IMP_{dir} and SUB_{dir} are in complementary distribution in Slovenian, their distribution being determined by the person value of the subject. This kind of distribution is not restricted to Slovenian, and we saw a similar pattern also occurs in French (see Schlenker 2005a, and examples (24–26) in Section 2.3). There is, however, also variation in terms of where languages make the cut between the imperative verbal paradigm and alternative directive constructions.

In spite of claims otherwise (see Sadock and Zwicky 1985), not all languages have a dedicated imperative verbal paradigm (Jary and Kissine 2014). An example of this is Rapanui (du Feu 1996, 36–40), where directive speech acts are typically expressed by through the use of a co called 'momentary' particle ('ka' with 2P, and 'ki' with 1P/3P). The use of this particle is not restricted to canonical imperative functions or even broadly construed directive speech acts, it occurs also to mark posterior duration (i.e. 'from X onward') future and definite future, while retaining the same 'ka' 'ki' person contrast it has with directive uses (du Feu 1996, 134,158). At the other extreme we have languages like Hungarian (Kenesei et al. 1998, 20–21), with a full imperative paradigm spanning all persons, where the 3P imperative has a similar use as the SUB_{dir} does in Slovenian. ¹⁵

¹⁵ Interestingly enough, the Hungarian subjunctive verbal paradigm is morphologically identical to the imperative paradigm. Although in most grammars the two are considered a single paradigm, Tóth (2007) argues convincingly that they are indeed distinct. They differ primarily in their function, and which verbs can select them, but they also show some syntactic differences, two of them being: (i) in embedded contexts the complementizer 'hogy' can be omitted when the construction is used as a directive clause, and (ii) that with subjunctive use the so called 'verbal prefix' must occur before the verb, while with the directive use it must occur after the verb (Kenesei et al. 1998, 32). Especially the relation with the presence of the complementizer is reminiscent of French (see discussion below), where the subjunctive and imperative are also identical if we only look at the verb form. Note that because of the full imperative paradigm in

	no paradigm: Rapanui ('go')	imperative only: Bulgarian ('play')	also exhortative: Slovenian ('play')	full paradigm: Hungarian ('copy')
2P.(PL)	ka oho	igra- ĭ (-te)	igra- j (-te)	másol- j (-atok)
1p.pl	ki oho	da igrae-m	igra- j -mo	másol- j -unk
3P.(PL)	ki oho	da igrae(-yat)	naj igra(-jo)	másol- j -on/-anak

Table 3: A sample of cross-linguistic variation in the size of imperative paradigms

In most languages, though, the split in the paradigm is either like the one found in Slovenian or French, where imperative verbs occur only with 2P and (inclusive) 1P, or like English and Bulgarian (cf. Lindstedt 2010, for the latter), where imperative verbs occur only with 2P subjects. What we find in terms of imperative paradigm types available cross-linguistically is a one way implication relation: $3P.IMP \rightarrow 1P.IMP \rightarrow 2P.IMP$. To the best of my knowledge, the types of paradigms illustrated in Table 3 are the only ones attested cross-linguistically. ^{16,17}

Of course, languages do not always overtly express imperative morphology on the verb like Slovenian, or alternatively — have a imperative verbal morphology that is distinct from subjunctive morphology. A typical example of the former is English, while the latter can be seen in French and Hungarian (see ftn. 15). However, even in such cases, imperative verbs — homophonous with

Hungarian there is no need for the subjunctive constructions to ever serve as a surrogate form; there is no complementary distribution in terms of person value, but only in terms of lexical selection and function.

- (1) a. Let there be light!
 - b. # (You!) See to it so that there is light!

It is infelicitous, and for some downright blasphemous, to consider (1b) a paraphrase of (1a). After all, there is no addressee (or anything else) in existence in the relevant context to be directed. Two existing translations of (1a) in Slovenian as also very telling. The official, and archaic, one in (2) is an imperative despite the lack of an addressee.

(2) Bodi svetloba! be.IMP.(2.SG) light 'Let there be light!'

The (at least to me) more natural sounding equivalent of (1a) is found in the song "Osmi dan" [The Eight Day] by the Slovenian band Pankrti, as given in (3) (unfortunately, 'Let there be light' is not used in the song, so I use a close equivalent). Note that it is in fact a directive subjunctive with a 3P subject and a paraphrase like (1b) is impossible.

(3) Prvi dan je reku nej bo nebo in nej bo zemlja ... first day AUX.2.sg said.sg.m let be.fut.3.sg sky and let be.fut.3.sg ground ... 'On the first day he said, "Let there be sky and let there be ground!" ..."

Similar conclusions on the status of 3P directive clauses can be made from the discussion of a restricted class of English non-imperative performatives by Dong (1992), the details of which I leave out because this footnote is already too long.

¹⁶I use *exhortative* in the table as it is used in the typology of 'jussive' clauses by Zanuttini et al. (2012). That is roughly: a directive clause used to direct a group of people that includes at least the speaker and addressee.

¹⁷I assume, crucially, that a 3P.IMP_{dir} is in principle possible in other languages and that non-2P directives are not actually directed at the addressee (*contra* Zanuttini 2008, Zanuttini et al. 2012). Zanuttini et al. (2012) suggest that a speech act like 'Let the table be clean!' really means 'See to it that the table is clean!'. I disagree with this as I think the perceived addressee dependence arises solely because it is normally the only pragmatically relevant interpretation. When the addressee is removed and we have a scenario where a speaker does not require a mediator to accomplish the desired action, the addressee dependence goes away. Consider the example of an English *let*-construction in (1a).

subjunctive verbs — can block the use of subjunctives as directive clauses.

As we can see with the French examples in (56), the fact that the imperative and subjunctive are homophonous for the person values where both are available, the imperative (56a), but not the subjunctive (56b), can be used felicitously as a directive with a 2P subject. Furthermore, the complementizer 'que' is also in complementary distribution: it cannot be used with an imperative construction (56a), but it must be used with a subjunctive construction (56c).

- (56) a. Quitte la ville demain. leave.IMP.2.SG the city tomorrow 'Leave the city tomorrow!'
 - b. # Que tu quittes la ville demain.
 that you leave.SUB.PR.2.SG the city tomorrow
 'Let you leave the city tomorrow!'
 - c. Que Jean quitte la ville demain. that Jean leave.sub.pr.3.sg the city tomorrow 'Let Jean leave the city tomorrow!'

(Jary and Kissine 2014, 39–40)

French

Another contrast that is found in French is a difference in clitic placement: enclisis with imperatives (57a), and proclisis with other constructions, including subjunctives (57b) (see also Laenzlinger 1994, for a more detailed discussion). This indicates at minimum that the verb has two different syntactic positions between imperatives and subjunctives.

(57) a. <u>Écris</u> -le! write.IMP.2P -3.SG.ACC 'Write it!'

b. Que Jean l'- <u>écrive!</u> that Jean 3.SG.ACC- write.SUB.PR.3SG 'Let Jean write it!'

(Alexandre Vaxman, p.c.)

While Schlenker (2005a) correctly points out that the identity in form between the subjunctive and imperative is problematic for an account where complementary distribution arises solely due to morphological competition, his alternative — purely semantic competition — does not explain why systematic syntactic differences arise as a consequence of a restricted imperative paradigm.

Another example of this is Bulgarian (see Table 3), where imperatives are restricted to 2P subjects, and the surrogate directive clauses show distinct syntactic behavior with clitic placement and the ban on negation in with perfective aspect (see Lindstedt 2010). Similarly, in Slovenian, where both IMP_{dir} and SUB_{dir} have a directive function and show SOb effects (which I argued shows that they share the same structure), the two also differ in terms of clitic placement, as shown in (58).

- (58) a. Ne <u>pokaži</u> **mu je!**not show.IMP.(2.SG) him.DAT her.GEN
 'Don't show her to him!'
- b. Naj mu je ne pokaže! let him.DAT her.GEN not show.3.SG 'Don't let him/her show her to him!'

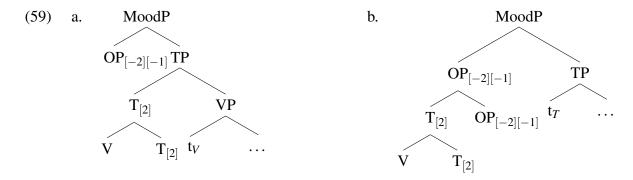
Sticking for the moment to Slovenian, I propose that the reason why IMP_{dir} and SUB_{dir} constructions share a lot of properties, such as the presence of generalized SOb and their function as directive clauses, but differ in their morphological realization and linear order of components, is that they have the same syntactic structure (see Section 4.1) and semantics, but differ in terms of the presence or absence of head movement of the verbal complex to OP_{dir} . This is not an entirely new

idea (see, among others, Rivero and Terzi 1995, Han 2000), but most previous approaches of this type place an interpretable 'imperative' feature on V — associated with imperative morphology, so that V moves to an imperative operator or C^0 to check its uninterpretable 'imperative' feature. This is roughly what Rivero and Terzi (1995) argue in their approach. I argue alternatively, that it must be the OP_{dir} which has an interpretable feature — associated with directive semantics, but also that OP_{dir} is potentially realized as imperative morphology and also attracts the $\{V+T\}$ complex based on the person features located on T, acquired from the subject in the course of the derivation.

In a Rivero and Terzi (1995) inspired system, two core assumptions must be made: (i) the imperative meaning component resides on V and is associated with an [iIMP] (interpretable imperative mood) feature, and (ii) the distribution of [iIMP] is restricted to Vs of the imperative paradigm. The latter also means that the presence of [iIMP] on V can be restricted, in a particular language, to particular person values of the subject (see discussion above), but this information only becomes available during the course of the derivation, and cannot be present on V in the lexicon. ¹⁸

Another issue relates to the 'directive meaning' component. We have seen that sentences which are not part of the imperative paradigm can have the same directive function as imperatives, and in the case of Slovenian, the surrogate imperative (= SUB_{dir}) in embedded clauses can only have the same speech act functions as the imperative (they are somewhat less restricted in matrix context — see below). This would be missed if directive meaning is restricted to the presence of the [iIMP] feature, which is limited to the imperative paradigm. I therefore propose an alternative account, which I spell out bellow. Crucially, this account will allow us to restrict both the directive meaning component and imperative morphology (when present in a language) to OP_{dir} .

Let us go through a sample derivation on the example of a Slovenian-like imperative paradigm. In a language with both (inclusive) 1P and 2P imperatives, OP_{dir} is specified to attract the $\{V+T\}$ complex only when T is specified for 2P or 2P+1P features (represented by the [-2][-1] diacritic), which acquire their value from the subject via Agree (Chomsky 2000, 2001). The derivation for a 2P subject is illustrated in (59): T acquires a 2P value from the subject via Agree and V head-moves to T (59a), the OP_{dir} then attracts the $\{V+T\}$ complex to head-move to it (59b).

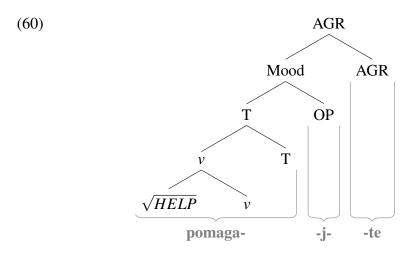


In a language where the imperative paradigm is restricted to 2P can be characterized as OP_{dir}

¹⁸One could argue, following Zanuttini et al. (2012), that a special Jussive⁰, associated with directive semantics and morphology, enters the derivation with valued person features which it the transfers to the subject of the directive clause. This would allow the [iIMP] to be associated with a Jussive⁰ of a particular person value in the lexicon. But since Jussive⁰ needs to be merged in a position at least above *v*P (Zanuttini et al. 2012), it is still V that must move to Jussive⁰. Therefore, V would presumably have to be specified with a corresponding [uIMP] feature already in the lexicon, which would then redundantly require that either all Vs in the lexicon have this feature, or that all Vs in the lexicon have a double with [uIMP]. This does not appear to me to be a very elegant solution to the problem.

having only a [-2] diacritic, ¹⁹ while in a language with a full imperative paradigm OP_{dir} attracts $\{V+T\}$ regardless of the person value on T. Conversely, when a language has no imperative paradigm, OP_{dir} never attracts the verbal complex. The main advantage of this kind of analysis is that an imperative verbal paradigm is not directly tied to imperative morphology, but still explains how the word order realization of a directive clause may differ between true imperatives and surrogate ones. All this is achieved while keeping the base syntax the same throughout all directive clauses, which is needed in Slovenian to account for the presence of generalized SOb with both IMP_{dir} and SUB_{dir} .

The analysis also straightforwardly account for the presence of dedicated imperative morphology, without assuming an early insertion model with a [iIMP] feature on the verb. Consider the word structure of an imperative verb after head movement, as given in (60). The structure reflects the imperative verbal complex after $\{V+T\}$ head-moves to OP_{dir} in MoodP, and the post-syntactic insertion of the AGR head (see Embick 2010, Norris 2014). The OP_{dir} lies between the verbal stem and AGR, which is also where the imperative morpheme surfaces in a Slovenian imperative verb.



Assuming a late-insertion model of morphology, we can characterize the presence of dedicated imperative morphology in a language as a vocabulary insertion (VI) rule (Halle and Marantz 1993, i.a.) that inserts imperative morphology at OP_{dir} . Consider the VI rules in (61). Rule (61–I) states that the imperative morpheme²⁰ is inserted at OP_{Mood} when T is the complement of that OP (not specified as OP_{dir} — details below), while rule (61-II) states OP realizes as 'naj' otherwise.

(61) I.
$$OP_{Mood} \Leftrightarrow \{-j-\} / [__[T]]$$
 II. $OP_{Mood} \Leftrightarrow \{naj\} / elsewhere$ (subjunctive morphology)

 $^{^{19}}$ I leave open the issue of the one way implication relation of imperative paradigm size discussed above (3P.IMP \rightarrow 1P.IMP \rightarrow 2P.IMP). One possible analysis that I can think of is that the attracting diacritic is structured the same way as person features in privative approaches to person (Harley and Ritter 2002, McGinnis 2005). For instance, a PARTICIPANT value is shared by 2P and 1P, while AUTHOR is specific to 1P and dependent on the presence of PARTICIPANT. If attraction of $\{V+T\}$ to OP_{dir} can either be general to all Ts, exclusively PARTICIPANT targeting, or PARTICIPANT and AUTHOR targeting, then the absence of exclusive AUTHOR attraction can be attributed to AUTHOR being dependent on PARTICIPANT. But this is just a rough sketch of an analysis and needs to be fully worked out.

²⁰Apart from the {-j-} suffix, there are other types of imperative morphology in Slovenian. With a stem-final /e/, {-j-} changes to [i] instead of resulting in [ej], presumably due to the application of a morpho-phonological rule. With /i/-final stems the imperative and indicative are the same due to the application of a phonological rule which applies to repair */ij/ sequences, which are banned in Slovenian.

Additional evidence for the fact that imperative morphology is the realization of OP only when it is within the verbal head cluster (at least in Slovenian), comes from the existence of suppletive IMP_{dir} verbs, as given in (62). Both are examples of the suppletive form for the imperative of 'to go', but show how the suppletive forms differ in two dialects of Slovenian: (62a) is used in more Western varieties such as mine, and (62b) in colloquial Standard Slovenian.

(62) a. ['yreste] / {yre - s - te} ("go.2.PL")
$$\rightarrow$$
 ['bejʃte] / {bejʃ - te} ("go.IMP.2.PL") b. ['greste] / {gre - s - te} ("go.2.PL") \rightarrow ['pejte] / {pe - j - te} ("go.IMP.2.PL")

The existence of a suppletive verb form indicates the triggers of imperative morphology insertion (OP and its complement T) are within the same head-complex. We know from Bobaljik (2012) that suppletion is sensitive to features in the same maximal projection, but not those outside a maximal projection boundary. The lack of SUB_{dir} suppletive verb forms distinct from indicative ones shows that OP does not affect VI in the verb cluster in SUB_{dir} . This is expected as $\{V + T\}$ does not move to OP in SUB_{dir} , which keeps OP outside the relevant spell-out domain.

The 'naj' particle is then essentially elsewhere exponent of OP, which is realized when there are no 2P (and 1P) features present on T^0 . In such cases no movement of $\{V+T\}$ to OP takes place and rule (61–I) cannot apply, which in turn allows the elsewhere rule (61–II) to apply at OP.

The SUB_{dir} construction thus involves the realization of OP as 'naj', and the verbal complex surfacing as indicative because OP is not part of it. The contrast is given with (63a) versus (63b).

(63) a.
$$[_{AGR} [_{Mood} [_{T} [_{v} \sqrt{HELP} \ v] T{2P,PL}] OP] AGR]$$
 $\Leftrightarrow IMP_{dir}$ $[$ $[$ $[$ $pomaga] -j] -te$ $]$ \Leftrightarrow SUB_{dir} $[$ $[$ naj $] ... $[$ $[$ $pomaga] -jo$ $]$$

Remember that the VI rules do not specify what kind of Mood operator can be realized as 'naj'. This is so that Schlenker's (2005a) intuition that subjunctive is the unmarked mood can be maintained. As he observes, the environments in which subjunctive occurs in French do not form a natural class, while the environments where indicative, infinitive and imperative are used do. The characterization of 'naj' as the elsewhere case is designed to extend this intuition to Slovenian.

The 'naj' particle may in fact appear outside directive clauses. The sentence in (64a) shows another type of performative utterance with 'naj' which is not a directive speech act. It is used instead to announce an action in the immediate future of the utterance, to describe an action being performed simultaneously as the utterance, or even as an offer. Note also that the subject is 1P unlike with the directive use. Furthermore, unlike true directive clauses, these are incompatible with high scoping future temporal adverbs — compare the infelicitous sentence in (64b) with (64c).

- (64) a. Naj vam predstavimo naš nov izdelek. let you.PL.DAT present.1.PL our new product.ACC 'Let us introduce you to our new product.'
 - b. # Jutri <u>naj</u> vam predstavimo naš nov izdelek.
 tomorrow let you.PL.DAT present.1.PL our new product.ACC
 'Tomorrow, let us introduce you to our new product.'
 - c. Naj vam predstavimo naš nov izdelek jutri. let you.PL.DAT present.1.PL our new product.ACC tomorrow 'Let us introduce you to our new product *tomorrow*.'

Although the exact reason behind the temporal adverb restriction remains unclear, it is another asymmetry that separates directive clauses from the alternative use of 'naj' we saw in (64a). Observe that both IMP_{dir} (65a) and SUB_{dir} (65b) are compatible with a high scoping temporal adverb.

- (65) a. Jutri pridi pravočasno! tomorrow come.IMP.(2.SG) on.time 'Tomorrow come on time.'
 - b. Jutri naj pride pravočasno!
 tomorrow let come.3.sg on.time
 'Tomorrow he/she must come on time.'

Interestingly, this use of 'naj' is only possible in matrix contexts. Consider the examples in (66). The construction in (66a) can only be interpreted as involving an embedded directive clause. But since the matrix (64a) actually does not show a generalized SOb effect, it could be that it is restricted to coreference configurations in embedded contexts. However, the examples in (66b) and (66c) are ungrammatical due to SOb, which means that they do not really correspond to (64a).

- (66) a. Rekli so pravkar, da naj vam predstavi-mo naš novi izdelek. said.PL.M AUX.3.PL just that let you.PL.DAT present-1.PL our new product.ACC 'They just said they we #will/should introduce you to our new product.'
 - b. * Rekli so_i pravkar, da naj nam predstavi-jo_i njihov novi izdelek. said.PL.M AUX.3.PL just that let us.DAT present-3.PL their new product.ACC int.: 'They just said they will in introduce us to their new product.'
 - c. * Rekli smo_i pravkar, da naj vam predstavimo_i naš novi izdelek. said.PL.M AUX.1.PL just that let you.PL.DAT present-1.PL their new product.ACC int.: 'We just said we will in introduce you to our new product.'

Another example of the 'naj' modal particle appearing outside directive constructions is given in (67). In this case 'naj', with the addition of the conditional particle 'bi' (roughly 'would'), gives the meaning of an epistemic possibility modal.

(67) Kupil je ta avto, ker <u>naj</u> **bi** imel boljšo porabo. bought.sg.m AUX.3.sg this.sg.m car.ACC because let would have.sg.m better.sg.F mileage 'He bought this car, because its supposed to have better mileage.'

The examples above show us that 'naj', which is used in SUB_{dir} constructions in Slovenian, also has other non-directive uses, and the VI rule in (61–II) is designed to capture this by not specifying a mood type. However, IMP_{dir} and SUB_{dir} are not the only two realizations of the directive clause structure. For instance, some Slovenian do not allow negative imperatives with perfective aspect—this also holds at least for Bosnian/Croatian/Serbian (Despić 2015), Bulgarian and Macedonian (Lindstedt 2010). With such speakers, the negated IMP_{dir} shown in (68a) is ungrammatical, and the directive clause must instead be realized with a verb in the infinitive, as shown in (68b).

(68) a. Variety 1:

Ne zlomi stola!

not break.INF.(2.SG) chair.GEN

'Don't break the chair!'

b. Variety 2:

Ne zlomit stola!

not break.INF chair.GEN

'Don't break the chair!'

Because the sentences in (68a) and (68b) are identical in function and meaning, I assume that they both involve OP_{dir} . Presumably, the OP_{dir} remains silent in (68b), and head-movement of the verb is blocked by the presence of the negation. Interestingly, the presence of negation does not block the occurrence of 'naj' in SUB_{dir} , but also 'naj' cannot be used in 68b instead of the infinitive — the 2P subject is still blocking the use of a SUB_{dir} construction.

And although I do not have an elaborated analysis of this additional blocking process at the time, this asymmetry does show that most likely (68b) is simply another surface realization of the common structure for directive clauses I have proposed in Section 4.1. Existing approaches like have similarly argued for an analysis of the negative imperative ban which relies on a common underlying structure for imperatives and their surrogate negative forms. I leave it for future work to work out the details of how this complex interaction of surface forms should be analyzed.

The analysis presented in this section captures the complementary distribution of IMP_{dir} and SUB_{dir} in Slovenian while maintaining a common structure for them. It also opens new possibilities in the study of directive clauses; for instance we saw that in Rapanui there is no imperative verbal paradigm, and directive clauses are formed through the use of the 'momentary' particle. With the current approach the particle can be seen as a spell-out of OP_{dir} , and the fact that it can be used for other purposes as well is analogous to the 'naj' in Slovenian. If the VI rule for the 'momentary' particle is underspecified like the rule I suggested for 'naj', then its multiple uses follow from it spelling-out different kinds of Mood operators. What this approach affords us is to study the cross-linguistic variation in imperative morphology and the size imperative verbal paradigms in a way which keeps the directive meaning component of such constructions the same.

4.3 Interim summary and open ends

I argued in this section that a generalized SOb, which spans both SOb and the exclusive 1P ban, arises in Slovenian in both imperatives and directive subjunctives because they have the same syntactic structure where coreference between the subject and OP_{dir} , a directive operator in MoodP, is restricted by Condition B. I also proposed that the complementary distribution between imperatives and directive subjunctives arises because the imperative paradigm involves head-movement of the verb to OP_{dir} restricted to particular person values of the subject. This is aimed to capture the elsewhere distribution of directive subjunctives and other surrogate imperatives, which is cross-linguistically always determined by the size of the imperative paradigm, which can itself be limited to only some person values of the subject. The analysis crucially relies on the fact that the OP_{dir} is considered a potential binder for Condition B, and that the OP_{dir} carries the referential information of the director — the utterance speaker with matrix directives, and the matrix subject with embedded ones. I will argue below that in fact it is not the OP_{dir} itself that functions as a potential binder for Condition B. Instead, the potential binder is actually a perspectival PRO introduced in the specifier of MoodP. I will then provide a semantics for OP_{dir} that derives the need for a PRO in that position, and has interesting additional consequences for the interpretation of directive clauses.

5 The semantics of OP_{dir} and 'perspectival moods'

In her work on Romance subjunctives and SOb, Kempchinsky (1986, 2009), suggests subjunctives and imperatives are parallel in that they involve a (quasi-)imperative operator responsible for both

their semantic interpretation and the restrictions on their subjects. She suggests the imperative operator in 'true imperatives' restricts subjects to those with an 'anyone other than the speaker' interpretation, while the quasi-imperative operator in subjunctives, which she actually calls 'embedded imperatives', restricts subjects to those with an 'anyone but the matrix subject' interpretation.

We saw that Slovenian corroborates an even stronger version of this view, as both imperatives and (directive) subjunctives may occur in matrix and embedded contexts and both show the SOb effects as well as the exclusive 1P ban. I have argued that this results from both constructions being underlyingly the same and only differing in their surface morpho-syntactic realization. So I suggested that there is no difference between the operator in imperatives and directive subjunctives, but did not offer an account of its semantics and how its directive function comes about.

Related to this, Quer (1998, 2001) suggests the semantic contribution of subjunctives involves a shift in the *model of evaluation* of the truth of the proposition, where truth is relativized to models within a context and to individuals (see also Farkas 1992, Giannakidou 1998). 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. The proposal presented in this section is designed to incorporate this intuition, although within a different framework, and derive from it the generalized SOb as well as the speaker distancing ban introduced in Section 2.1.

The semantics for the subjunctive (operator) by Quer requires an element of a complex semantic type akin to a modal verb, and this brings us to the open issue regarding the analysis of generalized SOb as it was presented up to this point. In order to derive SOb, I had to assume so far that Condition B somehow applies between OP_{dir} and the subject of an IMP_{dir}/SUB_{dir} , and that OP_{dir} is semantically bound by the speaker in matrix contexts and the matrix subject in embedded contexts (cf. Kempchinsky 1986). The operator, which is of a complex semantic type, must be semantically bound like a type e element, but what is odd is that it must be considered a binder for Condition B.²¹

I propose that it is not OP_{dir} which is semantically bound, but a 'perspectival PRO' in the specifier of MoodP headed by OP_{dir} . This perspectival PRO is bound analogously to the argumental PRO in obligatory control constructions (see Chierchia 1987, Pearson 2012, 2015) and is required in imperatives and (directive) subjunctives due to the semantic requirements of OP_{dir} , which I assume is a special kind of modal operator. In this I follow the performative modal analysis of imperatives of Schwager (2006), Kaufmann (2012), but propose a further refinement: the difference between a regular modal construction used as a directive speech act and one with OP_{dir} , is that only the latter involves the perspectival PRO as a grammaticalized representation of the source of the directive speech act. This captures both Quer's intuition about the subjunctive, as well as Kempchinsky's idea that the 'core' subjunctives, i.e. those that show SOb effects, are essentially imperatives.

The semantics for imperatives I adopt in this paper is not the only one on the market. There has been a number of influential alternative proposals recently; see among many others Portner (2007), Condoravdi and Lauer (2012), and von Fintel and Iatridou (to appear), and it may very well be that they can be adapted to capture the relevant facts just as well. What I show in this section is only that the facts can be straightforwardly explained with minor refinements to Kaufmann's approach.

²¹One could also assume alternatively, as in Kempchinsky (2009), that the operator only restricts the interpretation of the subject. But in this development of her original proposal, Kempchinsky must still assume that semantic binding between the matrix subject and the operator takes place, and thus inherits the problem of her earlier approach.

5.1 Performative modals

The approach to the semantics of imperatives that I use as a base for my analysis is the so called *performative modal* approach (see also Kamp 1973, 1978, Lewis 1979b) as developed by Schwager (2006), Kaufmann (2012). This particular approach to imperatives 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 the examples in (69), or can be used as performatives as in (70). The modal verb construction in (70a) invokes an obligation for the addressee to call the speaker, while the one in (70b) is a permission for the addressee to come at 11.

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

Furthermore, both performative modal constructions (71a) and imperatives (71b) make it impossible for the speaker to express disbelief that the action described by the verb will take place.

- (71) a. Sam must go to confession (#but he is not going to).
 - 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 only due to specific presuppositions triggered by imperatives and not by their declarative modal counterparts. This view is summarized in (72).

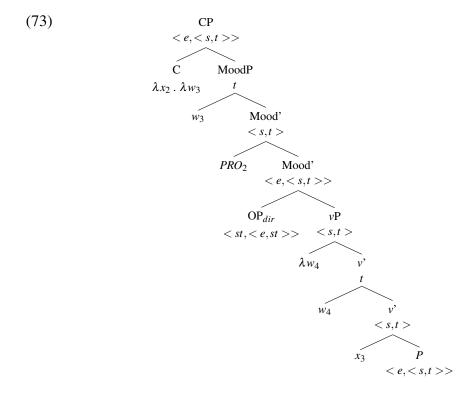
(72) *Imperative Semantics.* An imperative of the form '(SUBJECT)\phi!' denotes the same object as 'SUBJECT/you should \phi' with performative should. (Kaufmann 2012, 60)

The consequence of this view is that modal verbs will only give rise to performative effects when they occur in specific contexts where the right conditions for performative use arise. Conversely, imperatives — though denoting the same object as their modal declarative equivalents — have an additional presuppositional meaning component which restricts them only to contexts where their modal declarative equivalents can be used performatively. The details regarding the presuppositional component of imperatives are orthogonal to the main topic of this paper, so I will not discuss them in detail here. I will instead focus on the semantics of the modal component of directive clauses as a superset of imperatives, and depart from Kaufmann (2012) by arguing that modal declaratives and directive clauses show differences beyond the presuppositional component, and that precisely those differences are responsible for the emergence of the generalized SOb effect.

Under the performative modal analysis, a modal operator (OP_{Imp}), equivalent in its at-issue content to a necessity modal, must be present in every imperative clause. If we compare this to the structure I proposed for all directive clauses in Section 4.1, OP_{dir} seems like the natural choice as the stand in for Kaufmann's OP_{Imp} within the current approach.

5.2 The *director* as a grammaticalized point of view

In this section I refine the proposed unified structure of directive clauses (see Section 4.1), by arguing that in fact all directive clauses have the structure given in (73); to be elaborated on below.



The key difference from the earlier structure is the *PRO* in Spec,MoodP, which is variable bound through lambda abstraction analogously to *PRO* in control constructions (Chierchia 1987, Pearson 2012, 2015).²² I call this the *perspectival PRO*, as opposed to the argumental *PRO* in canonical control constructions. The need for a silent perspectival pronoun or other structural representations of perspective has been expressed before for independent reasons (see, among others, Bianchi 2001, 2003, Speas and Tenny 2003, Speas 2004, Baker 2008, Sundaresan 2014, Charnavel 2015a), typically as an account of logophoric pronouns or long distance anaphora. In this section I will argue explicitly for the syntactic representation of perspective as a bound *PRO*, and develop a semantics for OP_{dir} which explains the need for the perspectival *PRO* in directive constructions.

We can see in (73) that OP_{dir} is of type $\langle st, \langle e, st \rangle \rangle$, which makes the modal combine first with a propositional complement (the vP of type $\langle s, t \rangle^{23}$) and subsequently PRO, which is of type e. As I assume, following Kaufmann (2012), that OP_{dir} is essentially a modal, we need to first take a short detour into the semantics of modals to see how OP_{dir} differs from standard modals.

I follow here the standard assumption that modal verbs are quantifiers over possible worlds, and that they combine with propositions. But more importantly, I follow Kratzer (1981) (see also Kratzer 1991, 2012) in that I assume that the meaning of modal elements depends on two functions

 $^{^{22}}$ Note that the structure in (73) follows Pearson (2012, 2015) by making all clauses (embedded or matrix) properties, that is: type < e, < s, t >>. To the best of my current knowledge, there are no predictions that change regarding the core my proposal below whether we assume that all clauses are properties of propositions (< s, t >). I chose the former and not the later option, as it allows me to make use of the attitudinal operators proposed by Pearson (2012) in my analysis of matrix directive clauses in Section 5.4 without drastic alterations. I could have just as easily gone with the second option and change the denotation of the attitudinal operators. Of course, I do not exclude the possibility that the two options in fact do make different predictions outside the phenomena discussed in this paper.

²³I ignore the issue of tense throughout, as it is orthogonal to the issue of SOb. I will explicitly note when tense was part of analyses I adopt as part of my proposal, and provide modified versions of the relevant denotations and derivations without tense when needed.

from worlds into sets of propositions (type < s, < st, t >>) called *conversational backgrounds*. The first conversational background is the *modal base*, which is a (necessarily consistent) body of information, while the second one 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 those facts. Let us now see how this works in practice.

Like Kaufmann (2012), we only concern ourselves with finite ordering sources, so we can make use of simplified denotations for modals drawing on the *Limit Assumption* (Lewis 1973). I assume the version of the limit assumption from Kaufmann and Kaufmann (2015) provided in (74).

(74) A pair f, g of conversational backgrounds satisfies the *Limit Assumption* iff for all possible worlds w, for all $v \in \bigcap f(w)$ there is a $u \in O(w, f, g)$ such that $u \leq_{g(w)} v$.

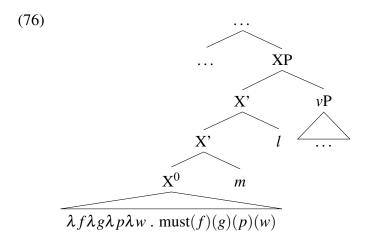
(Kaufmann and Kaufmann 2015, 283)

- a. f is the modal base (i.e., the body of information)
- b. g is the ordering source (i.e., the criteria for comparing the worlds that comply with f)
- c. O(w, f, g) is defined as the set of worlds conforming to the modal base f at w (i.e., in $\bigcap f(w)$) that are the best according to the ordering source g at w.

We can now provide the semantics for the necessity modal 'must' as in (75). Necessity is encoded as universal quantification over possible worlds $(\forall v)$, but O(f, g, w) also relativizes the set of worlds to the worlds in the modal base f that are optimal with respect to an ordering source g.

(75)
$$[must]^c = \lambda f \cdot \lambda g \cdot \lambda p \cdot \lambda w \cdot (\forall v \in O(w, f, g))[p(v)]$$

Let us now switch to the question of how the conversational backgrounds come to combine with the modal verb in the syntax. The most straightforward assumption is that the modal base and ordering source are introduced essentially as covert pronouns. Like referential pronouns, which are free variables, the value of a conversational background must also be supplied from the utterance context. The entry for 'must' in (75) is of type $\langle s, \langle st, t \rangle \rangle$, $\langle st, t \rangle \rangle$, which means that it requires two conversational backgrounds of type $\langle s, \langle st, t \rangle \rangle$. As illustrated in (76) using a simplified entry for 'must', the modal verb has to first combine with a modal base m, then with an ordering source l, and only then with the proposition p expressed by the vP, which the modal phrase takes as a complement.



If we compare 'must' with Kaufmann's (2012) entry for OP_{Imp} , given in (77),²⁴ we see they are in fact identical. We then expect it to also have a derivation parallel to (76), and similar (if not identical) syntactic properties. But as we saw above, this is not the case.

(77)
$$[OP_{Imp}]^c = \lambda f \cdot \lambda g \cdot \lambda p \cdot \lambda w \cdot (\forall w' \in O(f, g, w))[p(w')]$$
 (Kaufmann 2012, 86)

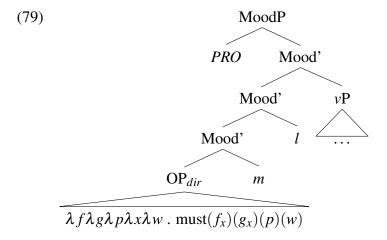
While it is true that in principle the syntactic differences between modal verb constructions and directive clauses could also be explained by saying that they differ purely in syntactic ways, I will take an alternative route and propose that in fact there are semantic differences between the two, which in turn lead also to the presence or absence of the perspectival *PRO* in the syntax.

I would like to propose that OP_{dir} has a semantics distinct from regular necessity modals, in that it has to combine with what I will call *centered conversational backgrounds*. That is, conversational backgrounds which are further restricted in relation to an individual of type e. A centered conversational background is then a function from an individual into a conversational background (type < e, < s, < st, t >>>). I thus propose (78) to be the entry for OP_{dir} .

(78)
$$[\![\mathbf{OP}_{dir}]\!]^c = \lambda f \cdot \lambda g \cdot \lambda p \cdot \lambda x \cdot \lambda w \cdot (\forall w' \in O(f_x, g_x, w))[p(w')]$$

- a. f_x is the body of information available to x
- b. g_x are the criteria to decide between worlds that comply with f_x endorsed by x

Consider now how the entry for OP_{dir} specifies the order in which it must combine with the conversational backgrounds and an individual. As illustrated in (79), OP_{dir} requires that after it combines with conversational backgrounds m, l, and the relevant propositional content (ν P), its semantic type requires also that it combines with an individual, in this case the perspectival PRO.



The OP_{dir} is thus different from a standard necessity modal in that it requires an individual in order to be interpreted. But recall also that I suggested above that the perspectival PRO is bound by a lambda abstractor in C. This should be analogous to how argumental PRO comes to be bound in control constructions in approaches like Chierchia (1987) or Pearson (2012, 2015).

Using the illustrative example from Pearson (2015) provided in (81), we see how the semantics the control sentence in (80) is derived in an approach where control constructions involve self ascription of a property (see also Lewis 1979a, Chierchia 1987, and footnote 22).

 $^{^{24}}$ I use her preliminary version of OP_{Imp} here, as her final version also takes into account temporal variables. And as I noted above, I ignore issues of tense in relation to the semantics of imperatives in this paper.

- (80) John expects to become rich and famous.
- (81) Lexical entry for 'expect': $[\text{expect}]^{c,g} = \lambda P_{< e, < s, t>>} \lambda x_e \lambda w_s . \forall < w', y>[< w', y, > \in \text{Expect}_{x,w} \to P(y)(w')]$
 - a. $[CP1 \lambda w_1 [w_1]]$ John expects $[CP2 \lambda x_2 \lambda w_3 [PW_3]]$ PRO2 to become rich and famous]]]]
 - b. $[CP2]^{c,g} = \lambda x \lambda w$. x is rich and famous in w
 - c. $[CP1]^{c,g} = \lambda w$. $\forall < w', y > [< w', y > \in Expect_{John,w} \rightarrow y \text{ becomes rich and famous in } w']$ (Pearson 2015, 7)

The attitude verb 'expect' takes as its first argument what is essentially a set of doxastic alternatives (82) (cf. Lewis 1979a, Chierchia 1987), which are centered worlds, that is world-individual pairs. In the case of 'expect', the verb is a universal quantifier over a kind of doxastic alternative that concerns the attitude holder's candidates for future realities, namely: Expect_{x,w}.

(82) Doxastic alternatives:

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

In the derivation itself, we see that as a consequence the attitude holder (matrix subject) self identifies as the individual who has the property of "being rich and famous" (81b) in some future reality (81c); we will see in Section 5.3 below, how this relates to *de se* attitudes. For now, the self identification will be treated as equivalent to co-reference for expository purposes. The result we get is that the subject of the attitude verb (*John*) is also the subject of the infinitive (*PRO*). This is possible because of the lambda abstractors introduced in the left periphery in the C of CP2 (81a); the abstractor over individuals — λx_2 and the subject of CP2 — *PRO*₂ must be co-indexed in obligatory control constructions, which results in *PRO* being semantically bound by the matrix subject. I have nothing new to add on how the co-indexation comes about, and I refer the reader to the discussion in Chierchia (1987), Pearson (2012, 2015), I only note that this same co-indexation relation must be present also with constructions involving a perspectival *PRO*, which I discuss below.²⁵

Consider now the embedded imperative sentence in (83) (the "English" paraphrase is meant to correspond to a Slovenian embedded imperative construction) and its derivation in (84), where I again follow the assumption from above that attitude verbs combine with properties.

- (83) 'John said that LEAVE!'
- (84) Lexical entry for 'say':

$$[say]^{c,g} = \lambda P_{>} \lambda x \lambda w$$
. $\forall < w', y > [< w', y, > \in Say_{x,w} \rightarrow P(y)(w')]$
Where $Say_{x,w} = \{< w', y > : \text{ it is compatible with what } x \text{ says in } w \text{ for } x \text{ to be } y \text{ in } w\}$

- a. $[CP1 \lambda w_1 [w_1] \text{ John says } [CP2 \lambda x_2 \lambda w_3 [w_3] \text{ PRO}_2 \text{ OP}_{dir} [\lambda w_4 w_4] \text{ 2P leaves }]]]]]$
- b. $[CP2]^{c,g} = \lambda x \lambda w$. $(\forall w' \in O(f_x, g_x, w))[addr(c) \text{ leaves in } w']$
- c. $[CP1]^{c,g} = \lambda w$. $\forall < w', y > [< w', y > \in Say_{John,w} \rightarrow (\forall w'' \in O(f_y, g_y, w))[\ addr(c) \ leaves in \ w'']]$

²⁵Another complication arises with object control, where *PRO* must be bound by the matrix object. See Pearson (2015) for some discussion on how to deal with those in her framework. I only add to this that, to my knowledge, the same configuration does not seem to arise with perspectival *PRO*, which always seems to pattern with subject control.

The derivation given in (84) is almost parallel to the derivation of the control construction discussed above in (81), the main difference being in the fact that PRO and the embedded subject are not the same individual, cf. (84a). The subject of the embedded clause is a free variable with 2P features (addr(c) = addressee in context c), while the embedded PRO is now the individual that the matrix subject (John) self identifies with. As suggested above, OP_{dir} combines with the proposition expressed by vP and yields a proposition, which combines with the perspectival PRO and a world variable. The lambda abstractors in C then make the clause a property again, which results in CP2 as schematized in (84b). The PRO semantically binds into the f_x and g_x of OP_{dir} . The lambda abstractors introduced in C then ensure that the subject of the attitude verb (John) self identifies with PRO and consequently also the bound variable components of f_x and g_x .

Under this analysis the SOb effect is an exact parallel to the binding restrictions in control infinitives. Just like how an object pronoun cannot be coreferential with the matrix subject in control constructions (85a) (compare with the object anaphor in (85b)), the subject *pro* of an embedded directive clause can not be coreferential with the matrix subject (86a). In both cases this is because *PRO* is a proxy for the matrix subject inside the binding domain.²⁷

- (85) a. *He_i promised [PRO_i to shave him_i].
 - b. He_i promised [PRO_i to shave himself_i].
- (86) a. *He_i said [that PRO_i [pro_i LEAVE.DIR]].
 - b. He_i said [that PRO_i [pro_k LEAVE.DIR]].

This analysis of SOb can be straightforwardly extended also to matrix environments in the spirit of the generalized SOb proposed in Section 4. Only now, no stipulation regarding the distinct behavior of OP_{dir} in matrix and embedded environments is needed. Following Pearson (2012), matrix clauses can also be viewed as properties, in which case an attitudinal operator serves the same function an attitude verb does in embedded environments. The full derivation of matrix directive clauses inspired by this approach will be given below in Section 5.4. For now it suffices to say that the speaker must self identify with perspectival PRO in (non-interrogative) directive clauses, which results in the exclusive 1P subject ban. A rough sketch of how the ban arises is given in (87).

(87) a. *[SPEAKER
$$_i$$
 PRO_i [pro_i LEAVE.DIR.1.SG]] (int. 'I must leave.') b. [SPEAKER $_i$ PRO_i [pro_k LEAVE.DIR.2.SG]] ('Leave!')

The one thing that is still missing is an explanation for how either matrix directive or embedded directive constructions gain their speech act status. This will also be discussed in Section 5.4,

 $^{^{26}}$ For attitude verbs that, unlike 'say', have modal content themselves (like 'order'), a doubling of modality arises (attitude verb + OP_{dir}). One way around this would be to follow recent work by Angelika Kratzer, where she suggests that embedding attitude verbs only describe events of different types, while the modal component is located entirely in the left periphery of the embedded clause (see, for instance, Kratzer 2013). This kind of account is needed independently to explain other instances of doubled modality like: 'Ralph advised that Ortcutt should turn himself in'. An analysis of embedded directive clauses in these terms strikes me as promising, given that in Slovenian any embedding verb that can be somehow construed as a verb of communication can be used to form an embedded directive clause construction.

²⁷This raises the question of why there is no equivalent of (85b) with directive clauses. There are at least two possible explanations. One is that this is due to the *anaphor agreement effect* (Rizzi 1990, Woolford 1999), the absence of anaphora in contexts that trigger agreement on the verb — in the case of Slovenian, the subject position. Another reason could be simply that Slovenian does not have nominative forms of anaphora and reciprocals.

where I propose that this can also be derived through the use of attitudinal operators. Pending the discussion of attitudinal operators, I will stick to the at-issue semantic content of directive clauses.

An explanation of the generalized SOb is not the only thing that this analysis of directive clauses gains us. Recall that there is another restriction which is found with directive clauses which was mentioned briefly in Section 2.1 — the so called ban on *speaker distancing*. The Slovenian examples showing the ban with matrix (11a) and embedded imperatives (11b) are repeated here as (88a) and (88a) respectively. In matrix contexts the ban manifests itself as the impossibility for the speaker of the directive clause to distance himself from the directive speech act (88a), which usually means continuing with a phrase like "But I don't want you to do that.". In embedded directive clauses, the ban on distancing applies to the matrix subject, as reporting the imperative is infelicitous if the original speaker's act of distancing is also reported (88b). Crucially, the speaker of the embedded imperative construction may freely distance himself from the directing act (88c).

- (88) a. # Pojdi stran! Ampak nočem, da greš.
 go.IMP.(2.SG) away but not.want.1.SG that go.IND.2.SG
 'Go away! But I don't want you to go.'
 - b. #Rekel je_i, da pojdi stran in da noče_i, da greš. said.sg.M AUX.3.sg that go.IMP.(2.sg) away and that not.want.3.sg that go.2.sg 'He said that you must go away and that he doesn't want you to go.'
 - c. Rekel je, da pojdi stran ampak nočem, da greš. said.sg.m AUX.3.sg that go.IMP.(2.sg) away but not.want.1.sg that go.2.sg 'He said that you must go away but I don't want you to go.'

The distancing restriction with its matrix/embedded asymmetry, can be straightforwardly accounted for by the semantics proposed for OP_{dir} , which we repeat here in (89). Note that crucially the ordering source refers to "the criteria [...] that comply with f_x endorsed by x".

(89)
$$[\![OP_{dir}]\!]^c = \lambda f \cdot \lambda g \cdot \lambda p \cdot \lambda x \cdot \lambda w \cdot (\forall w' \in O(f_x, g_x, w))[p(w')]$$

- a. f_x is the body of information available to x
- b. g_x are the criteria to decide between worlds that comply with f_x endorsed by x

The x variable in g_x is what the speaker self identifies with in matrix contexts, and what the matrix subject self identifies with in embedded contexts. That means the criteria that restrict the worlds that the modal quantifies over are always publicly endorsed by the director (also *source*), which is encoded within a directive clause by the perspectival PRO. The infelicity results from the directive speech act being a public endorsement of an ordering source by the director, and 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 directive clauses, as defined in this paper. It arises also when modal verb constructions are used performatively (see Kaufmann 2012, Condoravdi and Lauer 2012). Consider the examples in (90): The imperative (90a) does not allow distancing despite the fact that "the recipe" is primed as a salient body of information. The modal construction (90b) bans distancing only under a performative modal reading. But this is not even an option with

(90c), where the subject is not a potential actor for the act described by the verb. 28,29

- (90) 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.
 - c. According to the recipe, the peppers have to be put in now. But I don't think that you should do that.

I take this to mean that simple modals <u>can</u> express speaker endorsement of an ordering source under the right conditions, while directive operators <u>must</u> express it. This is essentially parallel to the behavior of pronouns and anaphora: pronouns <u>can</u> be bound under the right conditions, while anaphora <u>must</u> be bound. It is also conceivable that this endorsement component is a prerequisite for performativity, but I will leave this open for future exploration.

Let us see the contrast again with Slovenian examples, focusing specifically on the embedding asymmetry within the same scenario. In (91–93), Person A is chopping onions and asks Person B how they should be chopped (91). Person B may reply with (92a), a matrix directive clause, or (93a), a construction with an embedded directive clause. The sentence in (92a) cannot be felicitously followed up with a distancing act, as seen in (92b), while the one in (93a) can, as seen in (93b).

- (91) 'How should the onion be chopped?'
- (92) a. Čebula naj bo drobno sesekljana ... onion.Nom let FUT.3.sg finely chopped.sg.F 'The onion should be finely chopped ...'
 - b. #... ampak nočem, da je drobno sesekljana.
 but not.want.1.sg that AUX.3.sg finely chopped.sg.F
 '... but I don't want it to be finely chopped.'
- (93) a. Recept pravi, da naj bo čebula drobno sesekljana ... recipe say.3.sg that let FUT.3.sg onion finely chopped.sg.F 'The recipe says that the onion should be finely chopped ...'
 - b. ... ampak nočem, da je drobno sesekljana.

 but not.want.1.sg that AUX.3.sg finely chopped.sg.F

 '... but I don't want it to be finely chopped.'

The ban on distancing seen in (92b) shows that the speaker only 'endorses' the recipe or any other set of instructions as a relevant body of information.³⁰ However, the lack of the ban in (93b) reveals that the recipe in fact the source/director. This even more clearly shows that although embedded

²⁸Despite 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 preformatively in English when occurring in a matrix clause.

²⁹It is possible that at least some speakers can also construe (90c) as performative, provided that 'According to the recipe' is dropped. This needs to be investigated further, but it goes beyond the scope of this paper, and it does not affect the general relevance of the contrast between (90a) and (90c).

³⁰Unfortunately, examples parallel to the English examples with adverbials in (90) are marginal in Slovenian with matrix directive clauses for independent reasons. To the extent that marginal examples can be compared to the grammatical (92a) and (93a) in terms of the distancing ban, they seem to pattern with (92a) and do not allow distancing, as predicted. I leave it for future work to determine the source of the marginal grammaticality of such examples.

directive clauses can be used as speech acts, even an inanimate abstract entity such as a recipe can be construed as the source of the directive speech act, even though pragmatically this does not make any sense. Under the current approach, this fact actually follows from the semantics of OP_{dir} and how it relates to perspectival PRO. It is unclear how the distancing ban could be captured with a purely pragmatic account, due to the existence of such examples.

5.3 More evidence for perspectival PRO and its inherent de se interpretation

In the discussion above we set aside the fact that argumental *PRO* in control constructions must always be interpreted as *de se*. Control constructions involving attitude predicates have long been argued to obligatorily express *de se* attitudes (Morgan 1970, Chierchia 1987). In order to understand this we must determine what a *de se* attitude is. In this paper I follow Pearson's (2015) definition:

- (94) An attitude *de se* is an attitude—a belief, desire, expectation, etc.—that has the following properties:
 - (i) the attitude is about the attitude holder *and* (aboutness condition)
 - (ii) the attitude holder is aware that the attitude is about herself (awareness condition)

(Pearson 2015, 4)

In practice, the obligatory *de se* nature of *PRO* can be identified by using control constructions in contexts where the attitude holder is not aware that the attitude is about himself. One such example, taken from Pearson (2015), is provided below in (95).

- (95) [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 2015, 5)

In (95) only (95b) has a possible reading where it is true with the supplied context, while (95a) can only be false when used with the same context. This in fact follows from the self identification which comes out from the attitude verb combining with a set of doxastic alternatives (see discussion in Section 5.2 above). This also means that if the analysis I have proposed for directive clauses above is correct we also expect perspectival *PRO* to be inherently *de se*.

As far as I can tell, this prediction is borne out. Consider the (long and complicated) scenario in (96) and the two possible ways to describe what happened provided in (96a) and (96b).

(96) [Context:] Daša and Maša are twins. They are also both spies. On alternating days they relay orders to another spy, Boris. On Monday, Wednesday, Friday, and Sunday, Daša meets with Boris and either says nothing or: 'The spotted cuckoo bird is flying backwards.' To which Boris must reply: 'It's a cold day for pontooning.' By saying the phrase Daša instructs Boris to find to a new hideout. On Tuesday, Thursday, and Saturday, Maša does the same thing, but only as a distraction for the enemy spies, so she never gives any real instructions and just chooses if she will say the phrase or not at random. But Boris cannot tell Daša and Maša apart. So he relies exclusively on the day of the week to figure out who he's talking to, which then tells him whether the instructions are real or fake.

One Saturday Daša and Maša get very drunk and in the morning they mix up what day it is. On Sunday morning Maša meets with Boris instead of Daša and decides to say: 'The spotted cuckoo bird is flying backwards.' Boris replies and leaves to search for a new hideout. Coincidentally, that was actually what Daša was supposed to inform him to do.

- a. Maša je Borisu sporočila, da naj poišče novo skrivališče. Maša AUX.3.SG Boris.DAT informed.SG.F that let find.3.SG new hideout 'Masha told Boris to find a new hideout.'
- b. Maša je Borisu sporočila, da mora poiskati novo skrivališče. Maša AUX.3.SG Boris.DAT informed.SG.F that must.3.SG find.INF new hideout 'Masha told Boris that he must find a new hideout.'

Although the judgment is very delicate, and the context needs to be very complicated in order to even get the contrast, the construction with the embedded directive subjunctive in (96a) cannot be used to accurately describe the events that transpired in (96), while the modal verb construction in (96b) can. This seems to indicate that the perspectival *PRO* analysis of directive clauses is correct. Only the modal construction where the conversational backgrounds are not tied to an obligatorily *de se* perspectival *PRO* can be used with the context, while the directive clause cannot.

5.4 Matrix directives and the interrogative perspective shift

Another issue related to SOb that was only briefly touched upon above in Section 3.4 is that the exclusive 1P subject ban, illustrated here again in (97a), is lifted in interrogative contexts, as (97b,97c) show. In order to understand how this can be made to follow from the current approach, we must first take a closer look at how this approach deals with matrix directive clauses in general.

b. Naj si pomaga-<u>m</u> sam? SU = ✓1.SG let self.DAT help-<u>1.SG</u> alone.SG.M 'Must I help myself on my own?'

c. Kaj naj naredi-
$$\underline{m}$$
? SU = \checkmark 1.SG what let make- $\underline{1.SG}$ 'What must I do?'

I suggested above that the speaker of the directive clause self identifies with *PRO* by virtue of an attitudinal operator. The particular proposal I had in mind was Pearson's (2012), which introduces two such operators: ASSERT, used in declarative contexts, and QUEST, used in interrogative contexts. Pearson's proposed entries for the two operators are given in (98) and (99) respectively.

(98) [ASSERT]
$$^{c,g} = \lambda P_{\langle e, \langle i, \langle s, t \rangle > \rangle} : \forall \langle w', t', y \rangle \in \text{Dox}_{speaker(c), world(c), time(c)} \rightarrow P(x)(t')(w')$$

. P (Pearson 2012, 128)

(99)
$$[QUEST]^{c,g} = \lambda Q_{\langle\langle e,\langle i,\langle s,t\rangle\rangle\rangle,\ t\rangle} : \forall P \in Q \to \exists \langle w,t,x\rangle \in \text{Dox}_{speaker(c),world(c),time(c)}$$

$$: \forall \langle w',t',y\rangle \in \text{Dox}_{addr(c),wt} \to P(y)(t')(w') . \ Q$$
 (Pearson 2012, 168)

The ASSERT operator is assumed to be a covert operator that takes a root sentence meaning (assumed to be a property) as its argument and returns a property only if the property is true in the speaker's belief worlds, which achieved through the operator's presuppositional component. The presuppositional component of ASSERT also establishes it as a quantifier over doxastic alternatives of the speaker. What makes ASSERT different from an attitude predicate is that the latter may introduce a different person feature on their associated abstractor depending on the attitude holder/subject, whereas ASSERT is restricted to introducing 1P on its abstractor (Pearson 2012, 151).

In the following I adopt a modified version of ASSERT which I renamed COMMIT (100) in order to avoid the confusion that could arise with the use of the operator with non-assertive constructions like directive clauses. I also postpone the speech act aspect of directive clauses and operators until the end of the section. The derivation of a matrix imperative (101) is given in (101a) through (101c).

(100)
$$[COMMIT]^{c,g} = \lambda P_{\langle e, \langle s,t \rangle>} : \forall \langle w', y \rangle [\langle w', y \rangle \in Dox_{speaker(c),world(c)} \rightarrow P(x)(w')]$$
.
 P ('at-issue only' version) Where $Dox_{x,w} = \{\langle w', y \rangle : \text{it is compatible with what } x \text{ believes in } w \text{ to be } x \text{ in } w'\}$

(101) Leave!

- a. [COMMIT [$_{CP} \lambda x_2 \lambda w_3$ [w_3 PRO $_2$ OP $_{dir}$ [$\lambda w_4 w_4$ 2P leaves]]]]
- b. $[CP]^{c,g} = \lambda x \lambda w$. $(\forall w' \in O(f_x, g_x, w))[addr(c)]$ leaves in w']
- c. $[[COMMIT [CP \lambda x_2 \lambda w_3 [w_3 PRO_2 OP_{dir} [\lambda w_4 w_4 2P leaves]]]]]^{c,g}$ is defined iff $\forall < w', x > [< w', x > \in Dox_{speaker(c), world(c)} \rightarrow (\forall w'' \in O(f_x, g_x, w))[addr(c) leaves in <math>w'']]$

COMMIT is an identity function with a definedness condition, so the only consequence of it combining with a directive clause CP is that the meaning of CP can only be defined if the speaker self identifies with PRO. That is, the presuppositional component of ASSERT restricts the set of doxastic alternatives < w', x > to those which are compatible with the speaker's belief at w to be x in w'. Within the current approach this means that perspectival PRO is coreferential with the speaker, and induces a Condition B violation with the subject if the subject is exclusive 1P, but also that the speaker — through perspectival PRO — binds the variable in the centered conversational backgrounds f_x and g_x , which in turn makes the distancing ban apply to the speaker.

Turning now to questions and the QUEST operator, which I renamed to ASK and I provide in its modified form in (102). This operator takes as a complement an interrogative sentence, which denotes a set of properties, type << e, < s, t>>, t>, and introduces the presupposition that for every member of this set P it is compatible with the speaker beliefs that P is true at each of the addressee's doxastic alternatives. The derivation of a directive clause under ASK is given in (103). I assume that the set of properties expressed by a question comes about the WH operator, which takes the property expressed by a clause, and returns a set of properties, as shown in (103b). In the current example, a polar question, the set of properties contains a property where the prejacent P under the scope of OP_{dir} is true, and one where it is not.

(103) I LEAVE.DIR?

a. [ASK [
$$_{CP}$$
 WH [$\lambda x_2 \lambda w_3$ [w_3 PRO $_2$ OP $_{dir}$ [$\lambda w_4 w_4$ 1P leaves]]]]]

- b. $[CP]^{c,g} = \{ \lambda x \lambda w : (\forall w' \in O(f_x, g_x, w)) [speaker(c) \text{ leaves in } w'], \lambda x \lambda w : (\forall w' \in O(f_x, g_x, w)) [\neg speaker(c) \text{ leaves in } w'] \}$
- c. [[ASK [$_{CP}$ WH [$\lambda x_2 \lambda w_3$ [w_3 PRO $_2$ OP $_{dir}$ [$\lambda w_4 w_4$ 1P leaves]]]]]]] c,g is defined iff $\forall P$ [$P \in Q \to \exists < w, x > [< w, x > \in Dox_{speaker(c), world(c)} \& \forall < w', y > [< w', y > \in Dox_{addr(c), w} \to P(y)(w')]]]$

The key difference, compared to (101), in the derivation of (103) is that now the addressee's doxastic alternatives are relevant for the value of *PRO*. The denotation of *PRO* must now be compatible with what the speaker believes the addressee self identifies as. In other words, as opposed to COMMIT, the ASK operator always introduces 2P on its abstractor. This explains why the 1P subject restriction is lifted, but also predicts that interrogatives should instead observe a 2P subject ban. I propose that this is in fact borne out as the ban on imperatives in interrogative environments, as illustrated by the contrast in grammaticality between the two utterances in (104).

- (104) a. Pomaga-j si sam! SU = X2.SG help-IMP.(2.SG) self.DAT alone.SG.M 'Help yourself on your own!'
 - b. * Pomaga-j si sam? SU = X2.SG help-IMP.(2.SG) self.DAT alone.SG.M int.: 'Must you help yourself on your own?'

The standard assumption regarding imperatives in matrix interrogative contexts is that as two of the major clause types they are incompatible, and thus an imperative should not be able to occur in a question. The analysis proposed in this section in fact derives the absence of imperative questions entirely as a consequence of the QUEST operator and the semantics of directive clauses proposed above, with no stipulated restriction on the incompatibility of different clause types.³¹

So far, I set aside the issue of how directive clauses, which I assumed to be properties following Pearson's (2012) uniform treatment of CPs, gain their speech act status. I suggest that this is also achieved through the COMMIT and ASK attitudinal operators, which I modify further from Pearson's original proposal, where the modeling of specific speech acts was not her primary concern.

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 as a starting point the treatment of sentence meaning in *dynamic semantics* theories (see 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 then, following Gunlogson (2003), that CCP of a sentence is defined in terms of an update to the *commitment set* of an individual discourse participant, where I refer to it as the *set of public beliefs* (PB) (see also Lauer 2013). I modify this so that these are sets of properties: PB_S^c and PB_A^c , the public belief sets of the speaker (S) and addressee (A) of context c respectively.

I propose that COMMIT and ASK have an additional function to the one that was discussed above. This function is to update sets of public beliefs. Specifically, COMMIT adds its prejacent (the

³¹This account is actually less restrictive, which might be independently required since matrix imperatives can in fact occur in questions that are not true information seeking questions, such as echo questions or rhetorical questions (see for instance Kaufmann and Poschmann 2013). This can in principle be handled within the current approach by assuming that there are different kinds of interrogative attitudinal operators, but I will leave the actual details of such an analysis to be worked out in the future.

property expressed by the clause) to the PB_S^c set, while ASK adds to the PB_S^c set the property of wanting the addressee to commit to the truth of one of the properties in the set.

This refinement allows the property expressed by a directive clause to be used as a performative. By updating the PB component of the discourse context the speaker either publicly commits to the necessity of the prejacent P (COMMIT) or to wanting the addressee to commit to the necessity of the prejacent P (ASK). The difference between a matrix and an embedded directive is then only in the individual that binds the centered conversational backgrounds of OP_{dir} — the speaker in matrix directive clauses or the matrix subject in embedded ones. Strictly speaking, the embedding of imperatives or other directive clauses is then not embedding a speech act. A directive clause only gets its CCP at the matrix level, whether the directive clause is embedded or itself the matrix clause.

6 Extensions and future directions

6.1 Where all can perspectival *PRO* occur?

I have argued above that at least for imperatives and directive subjunctives, which I grouped together in the directive clause type, a perspectival *PRO* is required. This yields, among other things, the generalized SOb effect. This intuition can in principle be extended to other constructions where SOb is observed cross-linguistically, but those vary greatly across languages. Kempchinsky (2009) observes that the core case of SOb is with directive constructions, and that there is an implication relation in terms of the availability of SOb: if a language has SOb with non-directive subjunctives it will also have it with directive subjunctives. This is reminiscent to the control selecting verbs — there are clear core cases, but also a lot of cross-linguistic variation with non-core cases.

Another important aspect of SOb is that it is not always restricted to a single class of clause types. Costantini (2014) identifies at least one case of SOb with indicative clauses in Italian. In (105), the verb 'sapere' ('(come to) know'), a semifactive, selects an indicative complement clause. This construction "implicates that the source of information is indirect. Sentence [(105)], for instance, is infelicitous in a context where the speaker has witnessed Maria's leaving (Costantini 2014, 13)".

(105) Ho saputo che Maria é partita.
have known that Maria is.IND left
'I have come to know that Maria has left.'

(Italian; Costantini 2014, 13)

As shown by 106), the semifactive verb gives rise to an SOb effect with an indicative complement. Which, as Costantini (2014) points out, is not predicted by standard approaches to SOb.

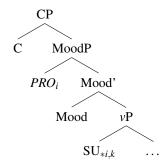
(106) Pietro_i ha saputo che ha $_{*i,k}$ il mal di testa. Pietro has known that has.IND.3.sG the headache 'Pietro has come to know that he has a headache.' (Italian; Costantini 2014, 13)

It is possible that semifactives have this "indirect information" interpretation because they obligatorily select a covert modal operator which just like OP_{dir} requires the presence of a perspectival PRO, and that this encodes in the embedded clause that the matrix subject acquired the knowledge of the prejacent. The presence of the SOb effect in the absence of subjunctive or imperative morphology can then be explained in parallel to the current approach. Of course, it needs to be checked if this construction patterns with canonical SOb constructions in any other way.

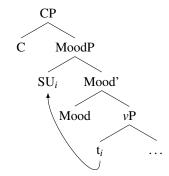
6.2 Non obviating subjunctives and directive clauses

So far, I have ignored one key aspect of the distribution of perspectival PRO, that is: are there any syntactic licensing restrictions that apply to it. Presumably, it is restricted just like its argumental counterpart to only specific syntactic positions. Recall that the need for perspectival PRO results solely from the semantic type of OP_{dir} , which requires an element of type e after combining with a proposition. Nothing in the semantics bans that slot to be filled by another type e element, so in addition to the SOb yielding structure in (107a), the structure in (107b) also satisfies the type requirements of OP_{dir} or any similar Mood operator.





b. 'RAISING' TO MOOD:



The structure in (107b) involves movement of the external argument to Spec,MoodP, predicting that when such movement occurs, no SOb should arise. And in fact not all subjunctive paradigms cross-linguistically show SOb effects. Namely, in Balkan-type subjunctives (see Quer 2006, 674–676) there is no SOb effect, and subjunctive complements can behave like control constructions. Such a result would be expected from (107b) if the moved subject was an argumental *PRO*.

The proposal parallels approaches to modal verbs in the tradition of Zubizarretta (1982), where modal constructions are treated essentially as raising constructions. Considering that imperatives and subjunctives both involve a special kind of modal operator, this parallelism is not entirely unexpected. However, just like with the original raising approach to modal constructions, it is not entirely clear how such "raising-to-mood" constructions can be interpreted, which is a problem I will leave open for the time being.

The split between (107a) and (107b) could potentially also be explored within a single language. With Korean embedded jussive clauses (Pak et al. 2008), it has been reported that the three different jussive types, marked by three different clause type particles, behave differently in terms of the embedded subject: (i) promissive — the subject of an embedded promissive must be bound by the matrix subject, (ii) imperative — the subject of an embedded exhortative be linked to both the matrix subject and dative. Within the current approach, both (ii) and (iii) could be viewed as SOb conforming constructions, where the matrix subject binds the embedded perspectival *PRO*, while the embedded subject can only be coreferential with another matrix argument (ii), or a superset of *PRO* (iii). With the promissive, the subject would have to raise to Spec,MoodP to yield a subject control-like configuration. For this reason, and the fact that the subjects appear to behave like shifted indexicals (Pak et al. 2008), Korean seems to be an interesting place to test how the current theory can be extended to other languages with a rich inventory of embedded directive clauses.

6.3 Comparison with conjunct-disjunct marking

A phenomenon which seems to pattern surprisingly close to the generalized SOb is *conjunct-disjunct marking*. In Newari, as discussed by Hale (1980) and Zu (2015), conjunct marking (CONJ) is the non-obviative marker; it occurs in matrix clauses when the subject is the speaker (1P) and results in ungrammaticality with 2P or 3P person subjects (108a). Disjunct marking (DISJ) on the other hand is the obviative marker, impossible with 1P person subjects (108b).

```
(108) a. { ji /*cha /*wa } ana wan-ā.

I / you / (s)he there go-PAST.CONJ

'I/*You/*(S)he went there.'
b. { cha / wa /*ji } ana wan-a.

you / (s)he / I there go-PAST.DISJ

'You/(S)he/*I went there.'
```

In questions, we observe the same shift we discussed for Slovenian directive clauses in Section 5.4. The use of non-obviative CONJ marking is ungrammatical with 1P and 3P person subjects (109a), while obviative DISJ marking is now ungrammatical with 2P person subjects (109b).

```
(109) a. { cha /*ji /*wa } ana wan-ā lā?
you / I / (s)he there go-PAST.CONJ Q
'Did you/*I/*(s)he went there?'
b. { ji / wa /*cha } ana wan-a lā?
I / (s)he / you there go-PAST.DISJ Q
'Did I/(S)he/*you went there?'
```

Crucially, in embedded clauses, CONJ and DISJ marking also pattern as non-obviative (control) and obviative clauses respectively. In (110a), *Shyam* is the matrix subject, so the subject of the CONJ-marked embedded clause must be co-referential with it. In (110b), on the other hand, the subject of the DISJ-marked embedded clause cannot be co-referential with the matrix subject.

```
(110) a. Shyam-o_i [ wa_{i,*k} and wan-\bar{a} dhakā: ] dhāla Shyam-ERG (s)he there go-PAST.CONJ that said 'Shyam_i said that he_{i/*k} went there.' (CONJ = co-indexation) b. Shyam-o_i [ wa_{*i,k} and wan-a dhakā: ] dhāla Shyam-ERG (s)he there go-PAST.DISJ that said 'Shyam_i said that he_{*i/k} went there.' (DISJ = obviation)
```

The distribution of DISJ marking paradigm thus appears to be identical to that of directive clauses in Slovenian, while the distribution of CONJ marking is its complement. One possibility of reconciling this with generalized SOb is to assume that the 'raising to Mood' option suggested above occurs with (marked) CONJ morphology, which syntactically licenses a non-*PRO* element (111a). The DISJ alternative is then the standard SOb configuration (111b), with a perspectival *PRO*.

```
(111) a. [CP \ I_i \ [OP_{conj} \ [vP \ t_i \ [v \ [VP]]]]]
b. [CP \ PRO_i \ [OP_{disj} \ [vP \ SU_{*i,k} \ [v \ [VP]]]]]
```

However, the parallelism with the generalized SOb pattern in Slovenian seems to not be complete. The generalized SOb persists in Slovenian with plural subjects, in that PL/DU.2P subjects are also banned in matrix directive clauses in interrogative contexts, as illustrated in (112).³²

(112) a. Pomaga-j-te si sami! SU = X2.PL help-IMP-2.PL self.DAT alone.PL.M 'Help yourselves on your own!'

b. * Pomaga-j-te si sami? SU = X2.PL help-IMP-2.PL self.DAT alone.PL.M int.: 'Must you help yourselves on your own?'

Vera Zu (p. c.) informs me that the situation is more complicated with conjunct-disjunct marking, at least for Newari. With plural 1P (inclusive and exclusive) subjects, what matters for the choice of a CONJ marker or a DISJ marker seems to be whether the speaker knows the answer to the question or not. When the speaker does not know the answer, DISJ marking is use, while when the speaker already knows the answer, CONJ marking is used. This seems to suggest that the status of the question is very important at least in conjunct-disjunct systems. Within the current system the difference could be attributed to different types of the ASK operator, with differences in the updates to the speaker and addressee public belief sets. I leave this open as a potential future exploration.

6.4 Obviating obviation

As briefly discussed in Section 3.2, it has been observed that contexts where the subject of an embedded subjunctive is forced to be interpreted as non-de se, the SOb requirement is lifted in embedded clauses (Schlenker 2005a, Szabolcsi 2010, Zu 2015). This seems to also be true of Slovenian subjunctives and imperatives. An example of this is provided in (113).

- (113) [Context:] A man lives has lived in a cave for years and in that time compiled a set of commandments which he wrote on the wall of the cave. One day, a piece of the cave cracks and falls on his head, giving him amnesia. He then begins to read the commandments:
 - a. Kdorkoli najde te zapovedi, naj jih spoštuje. whoever finds these commandments LET them.ACC adhere/respect 'Whoever finds these commandments should adhere to them.'
 - b. Kdorkoli najde te zapovedi, naj jih ne izbriše. whoever finds these commandments LET them.ACC not erase 'Whoever finds these commandments should not erase them.'

It is perfectly fine, as an outside observer, to report this course of events as in (114). The fact that the commandments were not written by the man with himself as the intended actor of the actions enforced by the commandments, seems to be lifting the SOb effect.

(114) a. Bradati mož si je_i tako naročil, da naj spostuje_i zapovedi. bearded man self.DAT SU.3.SG thus instructed that LET adhere/respect commandments 'The bearded man thus instructed himself that he should adhere to the commandments.'

³²Note that the subset-superset relation between the interrogative perspectival *PRO* (2P.SG) and the subject (2P.PL) is not enough to void SOb as it is with 1P.PL/DU subjects in non-interrogative contexts. This could be due to observation by Schlenker (2005b) that partial coreference is more readily available with 1P elements (see Section 4).

b. Bradati mož si je_i tako naročil, da naj ne izbriše_i zapovedi. bearded man self.DAT SU.3.SG thus instructed that LET not erase commandments 'The bearded man thus instructed himself that he should not erase the commandments.'

A similar effect can also be achieved to some extent with 1P and 2P person subjects in embedded imperatives. In the novel and movie *Fight Club*, Tyler Durden and The Narrator are at first presented to us as separate characters, but by the end they are revealed to be in fact the same person with a split personality. Example (115) is taken from the Slovenian subtitles to the movie version.

- (115) [Context:] Tyler is challenging the Narrator to punch him in the face. It is later revealed that to observers this was really the Narrator/Tyler talking to himself.
 - a. Tyler ⇒ Narrator: Udari me kolikor močno lahko! hit.IMP.2.SG me.ACC as much hard possible 'Hit me as hard as you can.'
 - b. Narrator \Rightarrow Tyler: Kaj!? what

The SOb effect is lifted in all three possible reports of the event. In (116a), a 3P person observer reports what transpired. In (116b) Tyler/Narrator is talking to himself as either Tyler to the Narrator or the Narrator to Tyler, and in (116c) Tyler/Narrator is explaining what happened to a third party.

- (116) a. Tyler je_i rekel, da naj { se_i / ga_{*i} } udari_i kolikor močno Tyler AUX.3.SG said.SG.M that let self.ACC / him.ACC hit.3.SG as much hard lahko.

 possible

 'Tyler_i said (to himself), that he_i must hit himself_i as hard as he_i can.'
 - b. Rekel si_i (si_i), da se_i udari $_i$ kolikor močno lahko. said.sg.m (self.dat) AUX.2.sg that self.ACC hit.IMP.2.sg as much hard possible 'You $_i$ said (to yourself $_i$), that you $_i$ must hit yourself $_i$ as hard as you $_i$ can.'
 - c. Rekel sem_i (si_i), da naj se_i udari m_i kolikor močno lahko. said.sg.M su.1.sg (self.det) that let self.acc hit.1.sg as much hard possible ' I_i said (to myself $_i$), that I_i must hit myself $_i$ as hard as I_i can.'

Those who argue for a competition approach to SOb typically use such examples to show the advantages they have over Condition B approaches (see also discussion in Section 3.2). But binding restrictions also interact with *de se* attitudes, and as we discussed, especially in Section 4, SOb can be lifted also in cases where the lack of SOb can not necessarily be attributed to non-*de se* readings. As it stands, further evidence is required to tease apart which approach better handles such cases.

6.5 Shifting clusivity?

I argued that in Slovenian 2P features are a prerequisite for head-movement of the imperative verb to $Mood^0/OP_{dir}$, and that 2P features are also responsible for the inclusive interpretation of 1P.IMP_{dir} (117a). An inclusive SUB_{dir} is thus impossible because it is blocked by the existence of the more specified IMP_{dir} form, so it is limited to appear with inclusive interpretations, but those are independently blocked in matrix contexts due to the generalized SOb, illustrated again in (117b).

```
(117) a. Posluša-j-mo!
listen-IMP-1.PL
'Let's (= incl.) listen.'
b. * Naj posluša-mo!
LET listen-1.PL
int.: 'We (incl./excl.) should listen.'
```

But the situation is different in embedded contexts. An embedded IMP_{dir} is again restricted to inclusive 1P subjects (118a), but with an embedded SUB_{dir} it is the matrix subject that cannot be a subset of the PL/DU embedded subject (118b), and interestingly there is no restriction on the embedded subject with respect to inclusive and exclusive 1P distinction.

```
(118) a. Rekel je, da posluša-j-mo. said.sG.M AUX.3.sG that listen-IMP-1.PL 'He<sub>i</sub> said that we<sub>k+i</sub> should listen.'
b. Rekel je, da naj posluša-mo. said.sG.M AUX.3.sG that LET listen-1.PL 'He<sub>i</sub> said that we<sub>k-i</sub> should listen.'
```

The feature representation of inclusivity I have assumed dictates that in (118a) the subject must be 1P+2P, while in (118b) it can only be 1P. However, the SUB_{dir} is not restricted to an exclusive interpretation of 1P, but it is interpreted as exclusive with respect to the matrix subject. This phenomenon is reminiscent of the mismatch between morphology and interpretation found with attitude constructions in languages like Telugu (Messick 2015), where *de se* subjects of embedded clauses are 3P pronouns but give rise to 1P agreement on the embedded verb. I will leave this problem open for now, and note simply that a solution to it might help us learn more about how (in)clusivity should be encoded in the grammar and what are the possible LF/PF mismatches that can arise as a consequence of such apparent form/meaning mismatches.

7 Conclusion

In this paper I looked at the intricate interactions that occur in Slovenian directive clauses due to the possibility of taking both imperative and directive subjunctive clauses as complements in speech reports. I have observed that despite their complementary distribution, which is determined by the person value on the subject, the subject in both types of directive clauses is restricted according to a generalized subject obviation pattern: (i) in matrix environments the subject cannot be exclusive 1P (i.e. coreferential with speaker), and (ii) in embedded environments the subject cannot be coreferential with the matrix subject. I proposed that this follows from the compositional requirements of the directive operator OP_{dir} , which is also responsible for directive semantics. This operator requires an element of type e in its specifier in order to provide an interpretation for what I called the centered conversational backgrounds. I suggested that this e-slot is filled by a perspectival PRO which is bound in embedded cases analogously to argumental PRO in subject control by the matrix speaker. Conversely, in matrix environments it is bound either by the speaker itself, through the attitudinal operator COMMIT, or by the addressee, through the attitudinal operator ASK.

This analysis not only derives the generalized SOb effect as following from the particular semantics of OP_{dir} , but can also explain the speaker distancing ban that occurs in directive clauses,

and how it changes with respect to matrix and embedded contexts. Furthermore, it explains a previously unnoticed fact that the ban on exclusive 1P subjects in directive clauses is lifted in interrogative contexts, where it is replaced by the 2P subject ban. I have argued that the latter essentially provides an account for the cross-linguistic absence of interrogative imperatives.

To conclude, the intricate system of Slovenian directive clauses allowed us to test different theories of SOb and imperatives/directive constructions. And the analysis I provided offers a good starting point to look at related phenomena in a unified way which could potentially offer new insights regarding directive constructions and directive speech acts more generally.

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