
Decisive modality and intentionality effect

Abstract

This paper discusses the role interpretation of an action as intentional versus accidental plays in the grammar. We focus on two grammatical restrictions that exhibit sensitivity to the intentionality of an action. The first restriction concerns the so-called *subjunctive obviation*, whereby in many European languages the subject of the subjunctive clause cannot co-refer with the subject of the matrix clause. An important property of subjunctive obviation is that it is weakened with accidental actions. The second restriction pertains to an aspectual restriction in negative imperatives and desire statements in Slavic, which disallows the perfective aspect in these constructions. As it is the case with subjunctive obviation, the aspectual restriction is lifted when the action is interpreted as accidental. We argue for a semantic-pragmatic account for the weakening of subjunctive obviation and aspectual restriction and show that these phenomena are part of a larger picture where intentionality plays a central role.

Keywords: intentional, accidental, subjunctive, imperatives, desire statements, aspect, co-reference negation, multi-agent modal logic, semantics, pragmatics

1. INTRODUCTION

The goal of this paper is to draw attention of the linguistic community to the role interpretation of an action as intentional versus accidental plays in the grammar. To that end, we take a close look at two concrete phenomena that can be described as exhibiting an *intentionality effect*. The intentionality effect is a situation where a particular grammatical restriction is dependent on interpretation of the action as *intentional*. By ‘being dependent’, we mean that the restriction is active only when the action is intentional. We take ‘intentional’ in the strong sense. That is to say, an

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action is intentional if it is initiated intentionally and is fully controlled by the agent.¹ If an action is not initiated intentionally or agent’s control over the action is limited, we say that the action is *non-intentional* or *accidental*.² Interpreting an action as accidental relaxes grammatical restrictions exhibiting the intentionality effect.

The first phenomenon we look at pertains to the so-called *subjunctive obviation*. In many European languages, including Hungarian, Romance, and Slavic, the subject of the subjunctive clause cannot co-refer with the subject of the matrix clause, as in (1)a (Bouchard, 1983; Picallo, 1985; Ruwet, 1984, 1991; Farkas, 1992; Constantini, 2006; Kempchinsky, 2009; Schlenker, 2005, 2011; Szabolcsi, 2010, a.o.). However, this restriction is relaxed when the action described by the subjunctive clause is accidental (Ruwet, 1984, 1991; Zaring, 1985; Farkas, 1992, a.o.). This is the case with predicates like *se tromper de* ‘to be mistaken about’ (not initiated intentionally), (1)b, or *amuser* ‘to amuse’ (not fully controlled by the agent), (1)c.

- (1) a. * Je veux que je parte. (French)
 I want that I leave-SBJV
 ‘I want for me to leave.’

¹In this paper, ‘agent’ refers to the agent of an action, rather than the thematic role. This distinction is especially important to keep in mind for unaccusative verbs and predicates expressing mental states, such as *forget*, where the grammatical subject is assigned the thematic role of a patient or experiencer.

²A terminological note is in place here. In this paper, I divide actions (and contexts) into two classes: 1) intentional actions comprises actions that are initiated intentionally and are fully controlled by the agent and 2) non-intentional or accidental actions that consist of two sub-classes: i) actions that are initiated intentionally, but are not controlled by the agent like *amuse* and ii) unintentional actions like *forget*. Using ‘accidental’ in this broad sense may go against our everyday use of *accidental*. However, as the article develops, it will become clear that this terminological choice is justified.

- b. Je ne veux pas que je me trompe de clé.
I not want PRT that I me mistaken-SBJV about keys
'I do not want for me to mix up the keys.'
- c. Je veux absolument que j' amuse ces enfants.
I want absolutely that I amuse-SBJV these children
'I absolutely want for me to amuse the children.'

(Ruwet 1984, cited in Szabolcsi 2010, 2)

Our second phenomenon concerns distribution of the perfective aspect in Slavic languages. It is well known that in Slavic, negative imperatives cannot be used with perfective verbs, as in (2)a (Forsyth, 1970; Bogusławski, 1985; Zaliznjak, 2006; Paducheva, 2013; Despić, 2020, a.o.). However, this aspectual restriction is lifted when the action expressed by the verb is interpreted as accidental (Bogusławski, 1985; Zaliznjak, 2006; Despić, 2020, a.o.). For example, perfective can be used to express a warning against accidentally opening the window when a cage bird is flying around the room, (2)b, or as a reminder not to forget the keys, (2)c.

- (2) a. * Ne otkroj okno! (Russian)
not open-IMP.PFV window
'Don't open the window!'
- b. Smotri! Slučajno ne otkroj okno!
watch.out by.chance not open-IMP.PFV window
Be careful! Don't accidentally open the window!'
- c. Ne zabud' ključ!
not forget-IMP.PFV keys
'Don't forget the keys!'

The aspectual restriction and its lifting in accidental contexts can also be illustrated using desire statements. Intuitively, leaving a party is an intentional action (i.e., it is initiated intentionally and is fully controlled by the agent). The Russian example in (3)a shows that *užiti* 'leave-INF.PFV' cannot be used in negative desire statements. However, the picture is different once we modify the action by adding *ne vovremja*

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‘at the wrong moment’. The action becomes accidental for it does not fully depend on the will of the agent which moment is considered inappropriate for him to leave. Although Mark in (3)b might have good judgements in social situations, the ultimate evaluation of which moment is ‘wrong’ for leaving rests on the interested group. In this case, the perfective aspect becomes available, (3)b. The perfective also becomes available with unintentional actions like losing the keys, (3)c.

- (3) a. * Mark ne xočet ujti. (Russian)
 Mark not want leave-INF.PFV
 ‘Mark does not want to leave.’
- b. Mark ne xočet ujti ne vovremja.
 Mark not want leave-INF.PFV not in.time
 ‘Mark does not want to leave at the wrong moment.’
- c. Mark ne xočet poterjat’ kluči.
 Mark not want lose-INF.PFV keys
 ‘Mark does not want to lose the keys.’

What unifies desire statements (both subjunctive and infinitival) and imperatives is that they represent one class of modality, which we will refer to as *decisive modality*, following Kaufmann 2012; Kaufmann and Kaufmann 2012; Kaufmann 2019, a.o. To account for the intentionality effect in constructions with decisive modality, we will build on a semantic-pragmatic analysis of directive obviation in Kaufmann 2019. This analysis is formalized using multi-agent modal logic and derives obviation as contradictory requirements on the context in which sentences in question are uttered. Kaufmann’s (2019) analysis faces a number of challenges when it comes to accidental actions. We will put forward a modification for Kaufmann’s account that allows us to overcome those challenges and account for the intentionality effect.

It must be stressed at the outset that the goal of this paper is to develop an account for the intentionality effect in desire statements and negative imperatives, rather than

advocate for a particular approach to subjunctives, imperatives, co-reference, or aspect. Therefore, we will be using a specific set of theoretical assumptions without devoting much space to defending them against existing alternatives. We expect that any theory of subjunctives, imperatives, aspect, or any other phenomenon touched by the intentionality effect (see section 7.2) should provide an account for this effect. Finding a unified account using a particular set of assumptions is valuable because the underlying mechanism can be transported to other frameworks once necessary adjustments are made.

The flow of the article is as follows: In section 2, we look at subjunctive obviation and aspectual restriction in more detail focusing on those contexts that relax the restrictions in question. Section 3 discusses directive obviation and its analysis put forward in Kaufmann 2019. Section 4 presents the problems that Kaufmann’s (2019) analysis faces with respect to the intentionality effect phenomena and offers a solution for these problems. Additionally, section 4 also introduces linguistic evidence for the proposed solution. Section 5 demonstrates how the proposal developed in section 4 explains weakening of subjunctive obviation and aspectual restriction in accidental contexts. In section 6, we take a look at most prominent accounts of subjunctive obviation, aspectual restriction, and their weakening and argue that none of them can be used as a unifying account. Section 7 contains some general remarks about the notion of intentionality and presents other grammatical phenomena that are sensitive to the interpretation of the action as intentional versus accidental. Section 8 concludes.

2. TWO PHENOMENA IN DETAIL

In this section, we will discuss two phenomena exhibiting the intentionality effect. The first set of observations concerns co-reference and what is known in the literature as *subjunctive obviation*, *subject obviation*, or *disjoint reference effect*. We will

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see data showing that subjunctive obviation is relaxed or weakened when the action expressed by the verb in the subjunctive clause is interpreted as accidental. The second set of observations pertains to aspect choice in Slavic languages. Here, we will look at two constructions: negative root imperatives and infinitival desire statements. Both constructions are subject to the aspectual restriction disallowing the perfective aspect in negative sentences. As it is the case with subjunctive obviation, the aspectual restriction is lifted when the action is interpreted as accidental.

2.1 Intentionality effect and subjunctive obviation

In many European languages, including Hungarian, Romance, and Slavic, the subject of the subjunctive clause cannot co-refer with the subject of the matrix clause. This restriction, which we will refer to as *subjunctive obviation*, has been well documented and extensively studied, for example, [Bouchard 1983](#); [Picallo 1985](#); [Ruwet 1984, 1991](#); [Farkas 1992](#); [Constantini 2006](#); [Kempchinsky 2009](#); [Schlenker 2005, 2011](#); [Stegovec 2019](#). Subjunctive obviation in French is illustrated in (4) and (5) where subjunctive constructions are contrasted with infinitives. (4) is repeated from (1) where subjunctive obviation is illustrated for 1SG. (5) shows subjunctive obviation with 3SG where *il* ‘he’ in the subjunctive clause cannot co-refer with *Pierre* in the matrix clause.

- (4) a. Je veux partir. (French)
 ‘I want to leave.’
 b. * Je veux que je parte.
 ‘I want for me to leave.’
- (5) a. Pierre veut partir.
 ‘Pierre wants to leave.’
 b. Pierre₁ veut qu’il_{*1/2} parte.
 ‘Pierre wants for him to leave.’

A number of accounts have been proposed to explain subjunctive obviation, both syntactic (e.g., [Kempchinsky 2009](#)) and semantic-pragmatic ([Farkas, 1992](#); [Schlenker, 2005, 2011](#); [Constantini, 2006](#), a.o.) We will discuss some prominent accounts for subjunctive obviation in section 6. A noticeable property of subjunctive obviation is that it is weakened when the action expressed by the embedded clause does not (fully) depend on the will of the agent.³ The lack of control can be conveyed by using a passive construction, (6)a, or a modal, (6)b. It can also be expressed by metal state predicates like *se tromper de* ‘to be mistaken about’, (6)c, or plain agentive transitive verbs with non-controlled interpretation like *amuser* ‘to amuse’, (6)d ([Zaring, 1985](#); [Ruwet, 1984, 1991](#); [Farkas, 1992](#), a.o.).

- (6) a. Je veux que je sois enterré dans mon village natal. (French)
‘I want for me to be buried in my native village.’
- b. Je veux que je puisse partir tôt.
‘I want for me to be able to leave early.’
- c. Je ne veux pas que je me trompe de clé.
‘I do not want for me to mix up the keys.’
- d. Je veux absolument que j’amuse ces enfants.
‘I absolutely want for me to amuse the children.’
([Ruwet 1984](#), cited in [Szabolcsi 2010](#), 2)

Subjunctive obviation is not restricted to French or Romance languages. Examples in (7) illustrate subjunctive obviation and its weakening in Hungarian from [Szabolcsi](#)

³More precisely, subjunctive obviation is also weakened when the action in the *matrix* clause is modalized, see [Ruwet 1984](#); [Farkas 1992](#). For expository purposes, we put weakening of this kind aside as there are no parallel constructions in the domain of imperatives. However, the account proposed here can be straightforwardly extended to explain weakening in the matrix clause as well.

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2010. In section 2.2.2, we will also see subjunctive obviation and its weakening in Slavic languages.

- (7) a. # (Azt) akarom, hogy távozzam. (Hungarian)
 it-ACC want-1SG that leave-SBJV.1SG
 ‘I want for me to leave.’
- b. Azt akarom, hogy jó jegyeket kapjak.
 it-ACC want-1SG that good grades-ACC receive-SBJV.1SG
 ‘I want for me to receive good grades.’
- c. Azt akarom, hogy ne essek le.
 it-ACC want-1SG that not fall-SBJV.1SG down
 ‘I want for me not to fall down.’ (Szabolcsi, 2010, 3-4)

Weakening of a grammatical restriction (here, subjunctive obviation) in non-intentional contexts is the focus of the present paper. We refer to the dependence of a grammatical restriction on the interpretation of an action as intentional as the *intentionality effect*.

Although weakening of subjunctive obviation is possible with a range of verbs and constructions, the example with agentive transitive verb *amuser* ‘to amuse’ in (6)d is most significant for us here. It shows that weakening phenomena are not amenable to syntactic differences (passivisation, experiencer configurations, etc.), but rather should be explained in terms of the semantic or pragmatic meaning of the sentence. We will see this theme reoccur in section 2.2. In section 6, the fact that agentive transitive verbs trigger weakening of a grammatical restriction will be used to argue against purely syntactic accounts of the phenomena.

2.2 Intentionality effect and aspect

2.2.1 Imperatives

Across Slavic languages, positive imperatives can take verbs in either imperfective or perfective with minimal interpretative differences, as shown in (8). Negative imperatives, on the other hand, are well-formed only with the imperfective, see (9). This

aspectual restriction on imperatives has been well documented and amply discussed in the literature (Forsyth, 1970; Bogusławski, 1985; Zaliznjak, 2006; Paducheva, 2013; Despić, 2020, a.o.).

- (8) a. Otkryvaj / otkroj dver'! (Russian)
open-IMP.IPFV / open-IMP.PFV door
'Open the door!'
- b. Jedz / zjedz tego jabłka! (Polish)
eat-IMP.IPFV / eat-IMP.PFV that apple
'Eat that apple!'
- c. Jedi / pojedi tu jabuku! (Serbian)
eat-IMP.IPFV / eat-IMP.PFV that apple
'Eat that apple!' (Despić, 2016, ex.5)
- (9) a. Ne otkryvaj / *otkroj dver'! (Russian)
not open-IMP.IPFV / open-IMP.PFV door
'Don't open the door!'
- b. Nie jedz / *zjedz tego jabłka! (Polish)
not eat-IMP.IPFV / eat-IMP.PFV that apple
'Don't eat that apple!'
- c. Ne jedi / *pojedi tu jabuku! (Serbian)
not eat-IMP.IPFV / eat-IMP.PFV that apple
'Don't eat that apple!' (Despić, 2016, ex.5)

The property of the aspectual restriction that interests us here is that the restriction is lifted when the action expressed by the verb is interpreted as accidental. Accidentality can be part of the lexical meaning of the verb. This is the case with unaccusatives, such as *fall*, and mental state verbs, such as *forget*, *lose*, and *mix up*, (10). These verbs are low on the agentivity scale (in the sense of Dowty 1991) and thus, normally do not express intentional actions.

- (10) a. Ostorozno! Ne upadi! (Russian)
careful not fall-IMP.PFV
'Be careful! Don't fall down!'

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- b. Nie zgub tego klucza! (Polish)
not lose-IMP.PFV that key
‘Don’t lose that key!’ (Despić, 2016, ex.8)
- c. Ne zaboravite ključeve! (Serbian)
not forget-IMP.PFV keys
‘Do not forget the keys!’ (ibid. ex.10)

Accidental interpretation can also be triggered by the context, as shown in (11). Notice that in these examples, a regular agentive transitive verb is used and adverbials marking accidentality, such as *accidentally*, are optional.

- (11) Context: You let your canary out of the cage and leaving the room warn your wife who is staying in the room:
 - a. Smotri! (Slučajno) ne otkroj okno! (Russian)
watch.out by.chance not open-IMP.PFV window
‘Careful! Don’t accidentally open the window!’
 - b. (Przypadkiem) nie otworz okna! (Polish)
accidentally not open-IMP.PFV window
‘Don’t accidentally open the window!’

The second strategy (contextual accidentality) seems to be more restricted than the first one. For instance, in the Serbian example in (12)a, the perfective is still judged unacceptable even when the sentence is interpreted in the accidental context in (11). However, Serbian allows similar examples with other agentive transitive verbs like *tell*, (12)b. I will leave the investigation of this variation for future research, concluding for the purpose of this paper that the contextual strategy is (to some extent) available across all Slavic languages.

- (12) a. ??Ni slučajno ne otvorite prozor! (Serbian)
not by.chance not open-IMP.PFV window
‘Don’t accidentally open the window!’
- b. Ni slučajno joj ne recite da sam tu!
not by.chance her not tell-IMP.PFV that I am here

‘Don’t accidentally tell her I’m here!’

The pattern we see here is similar to the intentionality effect with subjunctive obviation. In both cases, we have a particular grammatical restriction (co-reference or aspect choice), which is relaxed when the agent lacks full control over the action or the action is unintentional. In both cases, weakening is observed with a range of predicates including unaccusatives, mental state verbs, and crucially, agentive transitive verbs. The difference between subjunctive obviation and aspectual restriction is that the latter is present only in negative sentences.

2.2.2 Desires

The aspectual restriction and its weakening in accidental contexts can be illustrated using bi-clausal constructions as well. A good testing ground for this is provided by infinitival desire statements. These constructions will also show us that aspectual restriction is independent from subjunctive obviation despite the fact that their weakening is obtained in identical contexts.

Let us first consider subjunctive desire statements in Slavic. Like in many other European languages, they exhibit subjunctive obviation with both perfective and imperfective in the embedded clause, see (13)a and (14)a. Only negative sentences are used as we know that the aspectual restriction surfaces under negation. Subjunctive obviation, as we also already know, can be weakened when the action is non-intentional. This is also the case in Slavic, see (13)b,c and (14)b,c. Notice that in these examples, perfective is acceptable.

- (13) a. Mark₁ ne xočet čtoby on_{*1/2} uxodil / ušel. (Russian)
 Mark not want that-SBJV he leave-IPFV / leave-PFV
 ‘Mark doesn’t want for him to leave.’
 b. Mark₁ ne xočet čtoby on_{1/2} opjat’ opazdyval / opazdal.
 Mark not want that-SBJV he again be.late-IPFV / be.late-PFV
 ‘Mark doesn’t want for him to be late again.’

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- c. Mark₁ ne xočet čtoby on_{1/2} byl poxoronen v Moskve.
 Mark not want that-SBJV he be-PFV buried in Moscow
 ‘Mark doesn’t want for him to be buried in Moscow.’

- (14) a. *Chcę, żebym odwiedziła rodzine. (Polish)

‘I want for me to visit relatives.’

- b. Nie chcę, żebym się rozchorowała.

‘I don’t want for me to be(come) sick.’

- c. Nie chcę, żebym spadła.

‘I don’t want for me to fall.’

(Szabolcsi, 2010, 9)

What subjunctive desire statements above show us is that i) co-reference of the main clause subject and the embedded subject is unavailable when the action is interpreted as intentional with the verb in either perfective or imperfective and ii) co-reference is possible when the action is accidental with both perfective and imperfective. These examples show us that subjunctive obviation is independent from aspect choice (i.e., we do not see subjunctive obviation only with perfective or imperfective aspect). To demonstrate that the aspectual restriction is independent from the obviation phenomena, we need to look at infinitival desire statements and compare them with imperatives. The logic is as follows: in imperatives, the individual who gives the order is normally different from the individual who performs the action, whereas in (subject control) infinitival desire statements, the attitude holder and the agent of the action must refer to the same individual. If the aspectual restriction and intentionality effect are present in both configurations, we prove that the aspectual restriction in Slavic and its weakening are independent from obviation phenomena.

Let us look at infinitival desire statements more closely. In infinitival desire statements (with subject control), the implicit subject of the infinitival clause (PRO) is obligatorily co-referential with the subject of the matrix clause (Morgan, 1970; Chierchia, 1989, a.o.). In Slavic, infinitival desire statements display the aspectual

restriction that we have already observed with imperatives: in positive sentences, both perfective and imperfective are acceptable, whereas negative sentences only allow verbs in the imperfective, as shown in (15).

- (15) a. Mark *xočet uxodit'* / *ujti*. (Russian)
 Mark want leave-INF.IPFV / leave-INF.PFV
 ‘Mark wants to leave.’
 b. Mark *ne xočet uxodit'* / **ujti*.
 Mark not want leave-INF.IPFV / leave-INF.PFV
 ‘Mark does not want to leave.’

As it is the case with imperatives, the aspectual restriction in negative infinitival desire statements can be lifted when the action is interpreted as accidental. For example, we can make the action of leaving less dependent on Mark’s will by introducing modifiers, such as *ne vovremja* ‘at the wrong moment’. As mentioned in the introduction, the intuition is that it does not fully depend on Mark’s will which moment is considered inappropriate for his leaving. Although Mark might have good judgments in social situations, the ultimate evaluation of ‘wrong’ rests on the interested group. In this case, the aspectual restriction is lifted and the perfective becomes available, (16)a. Similar examples can be constructed with accidental actions like *mix up the keys* or *fall*, (16)b,c.

- (16) a. Mark *ne xočet ujti* *ne vovremja*. (Russian)
 Mark not want leave-INF.PFV not in.time
 ‘Mark does not want to leave at the wrong moment.’
 b. Mark *ne xočet pereputat'* *kluči*.
 Mark not want mix.up-INF.PFV keys
 ‘Mark does not want to mix up the keys.’
 c. Mark *ne xočet upast'*.
 Mark not want fall-INF.PFV
 ‘Mark does not want to fall.’

To the best of my knowledge, the intentionality effect in infinitival desire statements in Slavic are not well studied, apart from some mention of the phenomenon in [Zaliznjak 2006](#). More research in this area is needed that will explore (among other things) cross-Slavic variation of the phenomenon.⁴ The observation that is important for us here is that at least in some Slavic languages that show aspectual restriction and intentionality effect with imperatives, the same restriction and its weakening obtain in infinitival desire statements. This shows that aspectual restriction and obviation are independent restrictions.

2.3 Interim summary

To summarize, in this section we saw two sets of data that demonstrate the intentionality effect. The first set concerns weakening of subjunctive obviation in non-intentional contexts. The second set pertains to lifting of the aspectual restriction in non-intentional contexts. The intentionality effect was exemplified in both monoclausal and bi-clausal constructions. The restrictions that the intentionality effect acts on (co-reference and aspect choice) are shown to be independent. It is also important to note here that the two phenomena discussed in this section represent a particular type of modality, which we will refer to as *decisive modality* (following [Kaufmann and Kaufmann 2012](#), a.o.). This type of modality covers imperatives, desire statements, and deontic modals. The data discussed in this section show clear parallelism when it comes to the intentionality effect in imperatives and desire statements and thus, call for a unified analysis. The goal of the following three sections (section 3-5) is to develop such an analysis. To formalize our analysis, we use the system proposed

⁴For example, as pointed out to me by Bogna Wiench (p.c.), infinitival desire statements in Polish do not exhibit the aspectual restriction unlike Polish imperatives. This cross-Slavic difference may be attributed to the well-known West-East split in the Slavic aspectual system ([Barentsen, 1998](#); [Dickey, 2000](#), a.o.). See [Goncharov 2020](#) for a proposal along these lines.

in Kaufmann 2019, which we describe in section 3. Section 4 shows that in order to account for the intentionality effect, the system proposed in Kaufmann 2019 should be modified. We offer such a modification and provide linguistic evidence for it. In section 5, we demonstrate how the proposed modification explicates weakening of subjunctive obviation and aspectual restriction.

3. DIRECTIVE OBVIATION AT THE SEMANTIC-PRAGMATIC INTERFACE

In this section, we look at a not so frequently discussed phenomenon dubbed *directive obviation* by Kaufmann (2019) and her semantic-pragmatic analysis of this phenomenon. We will use this discussion as a foundation for our explanation of the intentionality effect in the next section. Before we begin, it is worthwhile to reiterate that the goal of this paper is to develop a unified analysis of the intentionality effect, rather than advocating for a particular theoretical framework. We take Kaufmann 2019 as our starting point as it is one of the most recent and better developed analyses for the obviation data. In principle, other formalizations are possible with different sets of assumptions.

3.1 Directive obviation

Directive obviation in its simplest configuration can be illustrated by inability of first person exclusive forms to be subjects of regular root imperatives or subjunctives used for directives. As shown in (17), Greek *na*-subjunctives can be used as directive speech acts. In this case, we can say that the speaker plays the role of a *director* and the addressee is an *instigator* of the action (using the terminology from Kaufmann 2019).

- (17) Na aniksis to parathiro. (Greek)
 SBJV open-2SG the window
 ‘Open the window!’ (Oikonomou, 2016, 73)

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The picture with first person forms is different. For example, (18) cannot be used as a directive to bring it about that the speaker sends an email to Anna.⁵ This is because the director and instigator under such an interpretation refer to the same individual - the speaker. The ban on having the director and instigator of the directive speech act to co-refer is what is known as *directive obviation*.

- (18) # Avrio na stilo ena e-mail stin Ana.
tomorrow SBJV send-1SG an e-mail to Anna
‘Tomorrow, I should send an email to Anna.’ (Oikonomou, 2016, 168)

This restriction, however, is not morpho-syntactic. As show below, when the perspectival center (in the sense of Speas and Tenny 2003) is shifted in such a way that the instigator is understood as including somebody else in addition to the speaker, the obviation disappears (Oikonomou, 2016; Kaufmann, 2019, a.o.). The example in (19) is an illustration using Greek *na*-subjunctives. (19) is acceptable in a context where the speaker does not have an alarm clock and indirectly requests her mother, who usually wakes up before 6am, to wake her up.

- (19) Avrio na ksipniso stis 6.00a.m.
tomorrow SBJV wake-1SG at 6.00a.m.
‘Tomorrow, I should wake up at 6.00a.m.’ (Oikonomou, 2016, 168)

Directive obviation has been attested in other languages. For example, in Slovenian, directives can be expressed using regular imperative morphology with second person and first person *inclusive* or by *naj*-subjunctives with third person. Crucially, first person *exclusive* forms are unavailable (Stegovec and Kaufmann, 2015; Stegovec, 2017, 2019, a.o.). This paradigm is illustrated in (20). As with the Greek example in (19), the obviation in Slovenian disappears once the perspectival center is shifted, see Kaufmann 2019.

⁵This example can only be used as talking to oneself when, for example, creating a to-do list for tomorrow. This reading is irrelevant here.

- (20) a. *Naj pomagam! - *Naj pomagamo! (Slovenian)
 SBJV help-1SG - SBJV help-1PL
 intended: ‘I should help!’ - ‘We should help!’
- b. Pomagaj! - Pomagajte! - Pomagajmo!
 help-IMP.2SG - help-IMP.2PL - help-IMP.1PL(INCL)
 ‘Help!’ - to more than two people: ‘Help!’ - ‘Let’s help!’
- c. Naj pomaga! - Naj pomagajo!
 SBJV help-3SG - SBJV help-3PL
 ‘(S)he should help!’ - ‘They should help!’ (Kaufmann, 2019, 642-3)

Directive obviation has also been studied in more complex constructions, such as interrogative imperatives and embedded imperatives (see Kaufmann 2019 for discussion and references). For the purpose of this paper, it suffices to point out that the phenomenon is wide-spread and is convincingly argued to be grammatical in nature. For instance, the following examples show that imperatives can be embedded in Slovenian, unless the subject of the matrix and the imperative are co-referential, compare (21)a with (21)b.

- (21) a. Rekel (ti) je, da mu pomagaj.
 said-M.SG (2SG.DAT) is that 3SG.M.DAT help-IMP.2SG
 ‘He₁ said (to you) that you should help him_{1/2}.’ (Sheppard and Golden 2002, cited after Kaufmann 2019, 439)
- b. *Rekel si₁, da več telovadi₁.
 said-M.SG are-2SG that more exercise-IMP.2SG
 intended: ‘You said that you should exercise more. (ibid. p. 643)
- c. Rekel si₁, da moraš₁ več telovadit.
 said-M.SG are-2SG that should-2SG more exercise-INF
 ‘You₁ said that you₁ should exercise more.’ (ibid. p.644)

The ungrammaticality of (21)b, however, cannot be attributed to the oddness of reminding oneself of what one has to do for such a reminder (and a corresponding report) is perfectly expressible using deontic modals instead of imperative morphology, as in (21)c. This demonstrates that the phenomenon is grammatical in nature.

3.2 Semantic-pragmatic account of directive obviation

Kaufmann (2019) builds up her account of directive obviation on her earlier work (Schwager, 2006; Kaufmann, 2012; Kaufmann and Kaufmann, 2012, et seq.) where directive speech acts are assumed to be modalized sentences (i.e., *Open the door!* \approx *You must/should open the door*) that come with a set of presuppositions restricting the context where directives can be felicitously used. These restrictions derive non-assertive character of imperatives and non-canonical directives. In particular, there are two general conditions on the use of imperatives: (a) a director d of the imperative is uncertain about the course of events (*Epistemic Uncertainty Condition, EUC*) and (b) d is an authority (a combination of *Epistemic Authority Condition, EAC* and *Decisive Modality, DM*).

The account is formalised using multi-agent modal logic with two unary operators \Box and \Diamond indexed for epistemic and prioritising relations with respect to different individuals. Interpretation proceeds with respect to a frame $F = \langle W, D, B, R \rangle$, where W is a set of possible worlds, D is a set of individuals (including S (peaker) and A (ddressee)), B maps any x in D to x 's belief relation $B_x \subseteq W \times W$ (serial, transitive, shift-reflexive⁶), $R \subseteq W \times W$ is the salient prioritizing modal flavour. For convenience, two additional modal operators based on B are defined:⁷

(22) **Common Ground Belief:** \Box^{CG} is indexed for the transitive closure of speaker's and addressee's beliefs $B_S \cup B_A$ (Stalnaker, 2002)

(23) **Public Belief** (or public commitment) of x is a common ground belief that x believes p : $\Box^{PB_x} p := \Box^{CG} \Box^{B_x} p$

⁶A relation R is shift-reflexive iff for any w, w' s.t. wRw' , also $w'Rw'$ (Kaufmann, 2019, 653).

⁷Kaufmann (2019) uses ‘Mutual Joint Belief’ instead of ‘Common Ground Belief’ which we will use here.

Imperatives and sentences with decisive modality are translated as follows:

- (24) If ϕ translates to p :
- a. ‘ ϕ !’ translates to $\Box^R p$ (felicitous only if EUC, EAC, DM are satisfied)
 - b. ‘must ϕ ’ translates to $\Box^R p$

We need some more definitions before we can spell out the felicity conditions for imperatives:

- (25) **Context Set (CS)** is the set of possible worlds compatible with Common Ground Belief at the world in which the utterance takes place
- (26) **Decision problem:** a set of propositions Δ is a **decision problem** for an agent a in a context c iff Δ partitions the context set CS_c and CS_c entails that for all $q \in \Delta$, $\text{CONTROL}(a, q)$, where $\text{CONTROL}(a, q) := \text{TRY}(a, q) \rightarrow q$ (that is to say, a has control over bringing about q)

The felicity conditions for imperatives are defined as follows:

- (27) **(DM) Decisive Modality:** Given context set CS and a salient partition Δ on CS , the salient modal flavour R is **decisive** iff it constitutes the contextually agreed upon criteria to choose between the cells of Δ .
- (28) R being the **decisive modality** implies for any participant a to the conversation:
- a. If $\Box^R q$, a does not have an effective preference against q (in the sense of [Condoravdi and Lauer 2012](#))
 - b. If Δ is a decision problem for a , a tries to find out if $\Box^R q$ for any $q \in \Delta$
 - c. If Δ is a decision problem for a and a learns that $\Box^R q$ for $q \in \Delta$, a tries to realise q : $\Box^{B_a} \Box^R q \rightarrow \text{TRY}(a, q)$
- (29) **(EAC) Epistemic Authority Condition:** The spaker has perfect knowledge of R : for any $p \in \Delta$, $\Box^R p \leftrightarrow \Box^{B_s} \Box^R p$

- (30) **(EUC) Epistemic Uncertainty Condition:** In uttering a sentence translated as $\Box^R p$, speaker S holds possible both p and $\neg p$: $\Diamond^{B_S} p \wedge \Diamond^{B_S} \neg p$

According to this system, “[i]mperative marking triggers **DM**, **EAC**, and **EUC** as presuppositions, which means that the speaker takes them to be entailed by the context set by the time the content of this utterance is used to update the context set” (Kaufmann, 2019, 654). As we will see in section 4, the assumption that **DM** and the Control Condition CONTROL(a,q) that comes with it are entailed by the context set in which imperative morphology can be felicitously used is problematic. First of all, it disallows imperative morphology to be used in non-intentional contexts (contrary to fact). Secondly, it leaves no room for modelling the intentionality effect. Before we look at these issues more closely and propose a solution for them, let us see how directive obviation is derived in the system.

According to Kaufmann 2019, 655, directive obviation (e.g., universal lack of designated first person exclusive imperative forms) is derived as a case of inherent contradiction between the felicity conditions of imperatives in cases in which the director d is identical to the instigator a . To see how the contradiction arises, we first derive the principle of **Director’s Anticipation** as follows:

- (31) **Director’s Anticipation:** If director d is publicly committed to believing that instigator a believes that $p \in \Delta$ is R-necessary, then d is publicly committed to believing that p will come true: $\Box^{PB_d} \Box^{B_a} \Box^R p \rightarrow \Box^{PB_d} p$

(32) Proof:

1. $\Box^{PB_d} \Box^{B_a} \Box^R p$ [assumption]
2. $\Box^{PB_d} (\Box^{B_a} \Box^R p \rightarrow TRY(a, p))$ [Decisive Modality]
3. $\Box^{PB_d} \Box^{B_a} \Box^R p \rightarrow \Box^{PB_d} TRY(a, p)$ [system K]
4. $\Box^{PB_d} TRY(a, p)$ [1,3,MP]
5. $\Box^{PB_d} p$ [presumed control, def. of decision problem]

Let us now consider what happens when the root imperative ‘p!’ with 1SG exclusive morphology is uttered. In unmarked cases, when the speaker S utters ‘p!’, S is the director d of the directive speech act. The instigator a of the directive speech act is the grammatical subject. In our case (1SG exclusive morphology), the instigator is also S. The identity between the director and instigator results in contradiction as shown below:

(33) Proof:

1. $\Box^{PB_d}\Box^R p$ [committing utterance by $d = S$]
2. $\Box^{PB_d}\Box^{B_d}\Box^R p$ [def. of PB]
3. $\Box^{PB_d} p$ [2, Director’s Anticipation]
4. $\Box^{PB_d} (\Diamond^{PB_d} p \wedge \Diamond^{PB_d} \neg p)$ [EUC]
5. $\neg\Box^{PB_d} p$ [4, system K]
6. $\Box^{PB_d} p \wedge \neg\Box^{PB_d} p$ [3,5, contradiction]

As desired the contradiction arises only if the director (the speaker) is identical to the instigator. This is because the first conjunct in the contradictory statement at step 6, namely $\Box^{PB_d} p$, is derived from **Director’s Anticipation** whose antecedent is introduced by speaker’s public commitment that $\Box^R p$. If the director and the instigator do not co-refer (as is the case with canonical second person imperatives), speaker’s public commitment that $\Box^R p$ does not entail $\Box^{PB_d}\Box^{B_d}\Box^R p$ and the contradiction does not arise.

[Kaufmann \(2019\)](#) proposes that cases of embedded directive obviation are explained using the same mechanism because the semantics of embedding predicates (*say, tell, order...*) require that the matrix subject is the director and the felicity conditions must be satisfied at the level of the reported speech act. It is also suggested that the same mechanism is at work in subjunctive obviation given the similarity between imperatives and desire statements, although no details are provided.

4. PROPOSAL FOR INTENTIONALITY EFFECT

In this section, we discuss why [Kaufmann’s \(2019\)](#) account for directive obviation in its current state is problematic and cannot be used to account for the intentionality effect with subjunctive obviation and imperatives. We modify the analysis developed in [Kaufmann 2019](#) in such a way that it can be used for explaining the weakening phenomena in non-intentional contexts and provide linguistic evidence for our modification.

4.1 Intentionality Effect Condition (IEC)

The elegant account of directive obviation in [Kaufmann 2019](#) is problematic when it comes to imperatives used in non-intentional contexts, as the author herself points out (p. 658). The problem is that imperative morphology *can* be used when the instigator lacks control over the action, contrary to what the system predicts. In this case, imperatives communicate wishes or warnings:

- (34) a. Please, be there already! [silent wish, while running to a meeting]
 b. Please, don’t have broken another vase! (Culicover and Jackendoff 1997
 as cited in [Kaufmann 2019](#), 650)
- (35) a. Prijdi vovremja! (Russian)
 come-IMP.PFV on.time
 ‘Come on time!’
 b. Ne upadi!
 not fall-IMP.PFV
 ‘Don’t fall!’

The problem is that the Control Condition is stated as a requirement on the context c in which the imperative can be used. If CS_c does not entail $CONTROL(a,q)$, imperative morphology cannot be used to utter ‘p!’ in c . This predicts the sentences in (34) and (35) to be infelicitous contrary to fact. The solution I propose here is to extract the Control Condition from the definition of decision problem and state it as

a default interpretation. By ‘default’, I mean that if there are no indications that the action may be accidental, the action is taken to be intentional. I dub this condition an *Intentionality Effect Condition (IEC)*. In other words, in Kaufmann’s system, we have the decision problem defined as in (36), repeated from (27).

- (36) **Decision problem:** a set of propositions Δ is a **decision problem** for an agent a in a context c iff Δ partitions the context set CS_c and CS_c entails that for all $q \in \Delta$, $\text{CONTROL}(a, q)$, where $\text{CONTROL}(a, q) := \text{TRY}(a, q) \rightarrow q$ (that is to say, a has control over bringing about q)

The definition in (36) leads to the following requirement on the context in which imperative morphology can be felicitously used:

- (37) if a sentence translatable as $\Box^R p_a$ is uttered in c , then CS_c entails $\text{TRY}(a, p) \rightarrow p$ (the subscript a on the proposition indicates that a is the agent of the action described by p)

I propose to re-define the decision problem as in (38) and add the *Intentionality Effect Condition (IEC)* in (39), which states that the Control Condition, reformulated as speaker’s public commitment, obtains if there are no indications that the agent of the action does not believe that he is in control or equivalently considers it epistemically possible that the action is accidental (i.e., $\Diamond^{B_a}(\text{TRY}(a, p) \wedge \neg p)$). Note also that *IEC* in (39) is formulated as a condition on use for sentences with decisive modality rather than presupposition as in (36).

- (38) **Decision problem (new):** a set of propositions Δ is a **decision problem** for an agent a in a context c iff Δ partitions the context set CS_c
- (39) **(IEC) Intentionality Effect Condition:** If a sentence translatable as $\Box^R p_a$ is uttered in c AND there are no indications that $\neg \Box^{B_a}(\text{TRY}(a, p) \rightarrow p)$, then $\Box^{PB_s}(\text{TRY}(a, p) \rightarrow p)$

The addition of the second conjunct in the antecedent of *IEC* above allows us to have a configuration in which the imperative is uttered but the Control Condition is not met. This would happen in case there are indications that the action described by p is accidental. That is to say, *IEC* is satisfied in two cases shown in (40), assuming that we are interested in situations where the imperative (or other sentences with decisive modality) is uttered and accidentality excludes (full) control.

(40) *IEC* is satisfied if:

1. if a sentence translatable as $\Box^R p_a$ is uttered in c AND there are no indications that $\neg\Box^{B_a}(TRY(a, p) \rightarrow p)$, then $\Box^{PB_s}(TRY(a, p) \rightarrow p)$
2. if a sentence translatable as $\Box^R p_a$ is uttered in c AND there is an indication that $\neg\Box^{B_a}(TRY(a, p) \rightarrow p)$, then $\neg\Box^{PB_s}(TRY(a, p) \rightarrow p)$

Accidentality in *IEC* is formulated as a condition on the belief set of the agent of the action a . We will discuss the philosophical origin of this formalization of accidentality in section 7.1. An advantage of *IEC* (compared to other attempts to address the intentionality effect in grammar discussed in section 6) is that it does not strive to define intentionality and controllability of an action. Rather, it takes intentional actions to be any action that is not marked as accidental (where by accidental, we mean non-controlled and unintentional actions). Intuitively, if the action is intentionally initiated and is fully controlled by the agent, the agent believes that if he tries to bring it about that p , then the state of affairs described by p obtains. On the other hand, the action is accidental, if the agent considers it possible that he tries to bring it about that p , but $\neg p$ obtains. This is schematized in (41).

- (41) a. Intentional action: $\Box^{B_a}(TRY(a, p) \rightarrow p)$
- b. Accidental action: $\Diamond^{B_a}(TRY(a, p) \wedge \neg p)$

Consider, for example, the verb *win* in *John won the lottery*. In this case, *win* describes a prototypical accidental action. According to (41)b, this amounts to saying that among John’s belief worlds there is a world where he tries to win the lottery (goes to a convenience store, buys a ticket, etc.), but the desired state of affairs does not obtain. The epistemic nature of accidentality can be evidenced by the example in (42), which is anomalous unless we assume that God is not omniscient or winning a lottery is a controlled action that a skillful player can fully control and the result is guaranteed (like, for example, winning in noughts and crosses when playing with a 4 y.o. child).

(42) # God won the lottery.

There is another piece of *IEC* which requires clarification, namely ‘indications of accidentality’. What are these indications? Do they vary from language to language? Are they all lexical or they can be contextual? All these questions will be addressed in section 4.2.

Let us now demonstrate that the modification introduced above successfully derives directive obviation. We mentioned above that *IEC* is satisfied in two (relevant) cases. Case #1 obtains when there are no indications that $\Diamond^{B_a}(TRY(a, p) \wedge \neg p)$ and the consequent is true, (43). As shown in (44), in this case, *Director’s Anticipation* is derived. In cases where the director and the instigator co-refer, this leads to directive obviation, as desired. This result is identical to what we saw in section 3.2.

(43) Case #1: Let us assume that there are no indications that $\Diamond^{B_a}(TRY(a, p) \wedge \neg p)$. In this case, given *IEC*, we have $\Box^{PB_s}(TRY(a, p) \rightarrow p)$.

(44) Proof: $\Box^{PB_d}\Box^{B_a}\Box^R p \rightarrow \Box^{PB_d} p$

1. $\Box^{PB_d}\Box^{B_a}\Box^R p$ [assumption]
2. $\Box^{PB_d}(\Box^{B_a}\Box^R p \rightarrow TRY(a, p))$ [Decisive Modality]
3. $\Box^{PB_d}\Box^{B_a}\Box^R p \rightarrow \Box^{PB_d} TRY(a, p)$ [system K]

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4. $\Box^{PB_d} TRY(a, p)$ [1,3,MP]
5. $\Box^{PB_d} p$ [4,IEC,K,MP]

Unlike in Kaufmann’s system, our modified system has the second case where *IEC* is satisfied. Case #2 obtains when there *are* indications that $\Diamond^{B_a}(TRY(a, p) \wedge \neg p)$ and the consequent of *IEC* is false, (45). This second case, ensures that imperative morphology can be used when the Control Condition is not present, as in (34) and (35). Additionally, in this case, no *Director’s Anticipation* is derived. This predicts that in non-intentional contexts, co-reference becomes possible. In section 5, we will use this property of *IEC* to account for the weakening phenomena in subjunctive obviation and aspectual restriction.

- (45) Case #2: Let us assume that there *is* an indication that $\Diamond^{B_a}(TRY(a, p) \wedge \neg p)$, in this case given *IEC*, we have $\neg \Box^{PB_s}(TRY(a, p) \rightarrow p)$. *Director’s Anticipation* cannot be derived because the step from 4 to 5 in (44) is impossible.

As we see, the modification of Kaufmann’s system in terms of *IEC* successfully derives directive obviation. In addition, it avoids the problem faced by the account in Kaufmann 2019 allowing imperatives to be felicitously uttered in non-intentional contexts. The modification also provides room for modelling the intentionality effect as we will see in section 5.

4.2 Indications of accidentality

Intentionality in grammar is what fish would call ‘water’ if they walked on the ground more often. It is the default interpretation of any action as intentional unless there are indications to the contrary.

What may the indications that an action is accidental look like in language? The first possibility that comes to mind is a simple linguistic indication like morphology.

Indeed, there are languages that have a dedicated morpheme that marks accidental-ity of the action (among other things). For example, St’át’imcets/Lillooet (a Salish language spoken in southern British Columbia) has a dedicated ‘out-of-control’ circumfix *ka...a* (Demirdache, 1997; Davis et al., 2009, a.o.). This circumfix adds a range of nuances to the interpretation of the action, including unexpectedness, ability, and accidentality. (46) shows a minimal pair where the addition of *ka...a* conveys that breaking of the window was accidental. (47) illustrates that *ka...a* cannot be used in the context where the action is interpreted as intentional. (48) shows that *ka...a* is fully acceptable in non-intentional contexts.

- (46) a. sek’w-p-s-ás ti nk’wan’ústen-a (St’át’imcets)
 broken-INC-CAUS-ERG DET window-DET
 ‘He broke the window.’
- b. **ka**-sek’w-s-ás-**a** ti nk’wan’ústen-a ti sqáycw-a
 CIRC-broken-CAUS-ERG-CIRC DET window-DET DET man-DET
 ‘The man broke the window accidentally.’ (Demirdache, 1997, 109)

- (47) Context: We were sitting in a meeting when suddenly John stood up and ran from the room.

- a. # **ka**-tálh-lec-**a** kw=s=John, nilh s=qwatsáts=s
 CIRC-stand-AUT-CIRC DET=NOM=John FOC NOM=leave=3POSS
 q’ílhil
 run
 ‘John stood up suddenly, and ran out of the room.’
- b. lep kw=s=tálh-lec=s s=John, nilh
 suddenly DET=NOM=stand-AUT=3POSS NOM=John FOC
 s=q’ílhil=s úts’qa7 lhel=ta=s-gáw’p=a
 NOM=run=3POSS outside from=DET=NOM-meet=EXIS
 ‘John stood up suddenly, and ran out of the meeting.’ (Davis et al., 2009, 220)

- (48) Context: You were sitting in court being on the jury and you were not supposed to stand up until it’s time to go. But you were trying to get something

out of your pocket and your pocket was really tight and you had to wiggle and squirm and eventually you found that you had stood up by accident while you were trying to get that thing out of your pocket.

ka-talh-lec=kán-**a**, nílh=t’u7 múta7
CIRC-stand-AUT=1SG.SUBJ-CIRC FOC=ADD again
n=s=xwem mítsa7q
1SG.POSS=NOM=quick sit

‘I stood up by mistake, so I quickly sat down again.’ (ibid. p. 220)

Another morphological possibility is to use different case marking for controlled and accidental actions. For example, languages that exhibit the so-called ergativity split, like Hindi/Urdu, use ergative to mark the subject of intentional actions and nominative for accidental actions (e.g., [Tuite et al., 1985](#)). (49) illustrates this contrast. The examples in (50) show that modification by the rationale clause introduced by *in order to* is felicitous when the subject is marked with ergative but not nominative. Furthermore, in Hindi/Urdu, there are ‘ambiguous’ verbal morphemes, such as *jiit-* which with an ergative subject means ‘to conquer’, whereas with a nominative subject it means ‘to win’. This ‘ambiguity’ is explainable in light of intentional/accidental distinction, for conquering is an intentional action, while winning is a stereotypical accidental action.

- (49) a. Ram **ne** khÃs-a. (Hindi/Urdu)
Ram ERG cough
‘Ram coughed (purposefully).’
b. Ram khÃs-a.
Ram-NOM cough
‘Ram coughed.’ (Tuite et al., 1985, 264)
- (50) a. baccI **ne** mÃ ko bulane ke liye cIxI
girl ERG mother-DAT in order to call screamed
‘The girl screamed in order to call her mother.’
b. # baccI mÃ ko bulane ke liye cIxI
girl-NOM mother-DAT in order to call screamed

‘The girl screamed in order to call her mother.’ (Tuite et al., 1985, 265)

A similar strategy is employed by languages that have agent/patient nominal marking, such as Central Pomo (Pomoan language spoken in Northern California) (e.g., Mithun 1991). In Central Pomo, there are three cases: two main cases (usually referred to as agent and patient marking) and one oblique case. The cases are expressed on personal pronouns and some animate nouns. For example, the pronoun *ʔa* represents 1SG pronoun used as semantic agent of transitive verbs, whereas *to* is 1SG used to represent the semantic patient, see (51) and (52).

(51) a. *ʔa* mú·tu ʔé·yčadiw. (Central Pomo)

‘I chased him away.’

b. Mu·l *to* ʔé·yčadiw.

‘He chased me away.’

(52) a. *ʔa* mú·tu hk’úm siw.

‘I almost killed him.’

b. Mu·l *to* hk’úm siw.

‘He almost killed me.’

(Mithun, 1991, 518)

As expected, unaccusative verbs, mental states, and verbs expressing non-controllable actions, such as hiccoughing and sneezing, are used with patient pronouns in Central Pomo, see (53).

(53) a. *to* ló·ya.

‘I fell.’

b. *to* šʔúčiʔle.

‘I forget.’

c. *to* šč’úkčiya

‘I hiccoughed.’

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d. $\text{to} \text{ } \text{ʔés} \text{ } \text{ʔésay}$

‘I sneezed.’

(ibid. p. 519-520)

The agent/patient marking can be also used with the same verbs. In this case, agentive marking signals that the action is controlled by the subject, whereas the patient marking adds the meaning that the action is accidental, see (54) and (55).

(54) a. $\text{ʔa} \text{ } \text{č}^h \text{né} \text{m.}$

‘I ran into it.’

b. $\text{to} \text{ } \text{č}^h \text{né} \text{m.}$

‘I bumped into it (not watching).’

(ibid. p. 520)

(55) a. $\text{ʔa} \text{ } \text{mat} \text{ } \text{ém.}$

‘I stepped on it (intentionally).’

b. $\text{to} \text{ } \text{mat} \text{ } \text{ém.}$

‘I stepped on it (accidentally).’

(ibid. p. 520)

Before we leave Central Pomo, I want to point out a special remark that Mithun (1991) makes regarding the distribution of agent/patient marking. This remark concerns a possibility to tease apart volitional actions from controlled actions. This is the distinction that we identified as the difference between intentional and accidental actions, where the later category includes not only unintentional actions, but also actions that are initiated intentionally but are not fully controlled by the agent (in the epistemic sense, recall *#God won the lottery*). Mithun 1991, 520 notes: “Because control and volition so often co-occur, it is difficult to disentangle their roles in case marking. One verb could suggest that control takes precedence over volition in Central Pomo case marking, although a single lexical item can be only suggestive. If I win in gambling, I may have wanted or even intended to win (volition), but I cannot be said to have been in control. The Central Pomo predicate ‘win in gambling’ appears with the patient case.”

(56) *tɔ̃ tʰóʔ čaːqˈya.*

‘I’m on a lucky streak (gambling).’ (ibid. p. 520)

In addition to these clear morphological indications of accidentality, there are other manifestations, which include modification by adverbials such as *accidentally*, *unintentionally*, and *by mistake*, the use of passive constructions, modals, unaccusative verbs, and verbs expressing mental states like *forget*. We also saw in examples (11) and (12) that the context itself may be set up in such a way that the action receives an accidental interpretation.

5. EXPLAINING THE DATA

5.1 Subjunctive obviation

Several researches have pointed out the connection between directive obviation and subjunctive obviation (Kempchinsky, 2009; Oikonomou, 2016; Stegovec, 2019; Kaufmann, 2019, a.o.). Assuming that desires can be modelled using decisive modality, the connection is straightforward. Recall from section 2.1, that in many European languages, the subject of subjunctive clauses and the subject of the matrix clause cannot co-refer, unless the action in the subjunctive clause is interpreted as accidental.

(57) a. *Pierre₁ veut qu’il_{*1/2} parte.* (French)

‘Pierre wants for him to leave.’

b. *Je veux absolument que j’amuse ces enfants.*

‘I absolutely want for me to amuse the children.’

Subjunctive obviation and its weakening are accounted for similarly to directive obviation. That is to say, the identity between the attitude holder and the agent of the action in the subjunctive clause results in the contradiction. We know at least since

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[Heim 1992](#) that desire statements carry the presupposition that the attitude holder considers both p and $\neg p$ epistemically possible, see (58).

(58) ‘want_x p ’ is defined only iff $\Diamond^{B_x} p \wedge \Diamond^{B_x} \neg p$

In the configuration in which an equivalent of *Director’s Anticipation* is derived (i.e., intentional contexts), co-reference between the attitude holder and the agent of the action in the subjunctive clause results in contradiction, as we saw in section 4.1. The disjoint reference, on the other hand, is well-formed. With accidental actions, co-reference is innocent because the Control Condition is not enforced.

5.2 Aspect

To explain the intentionality effect with the aspectual restriction in Slavic, we need to look more closely at the meaning contribution of the perfective and imperfective aspects in Slavic. Following recent work in [Grønn 2003](#); [Zinova and Filip 2014](#), a.o., we assume that the perfective aspect in Slavic asserts that the action has achieved the end-point and has an implicature that the action has begun. The imperfective aspect asserts that the action has started and generates no relevant implicatures.

- (59) a. Ivan ne pročitál etu knigu. (Russian)
Ivan not read-PFV this book
‘Ivan didn’t read this book (completely through).’
b. Assertion: Ivan did not finish reading this book
c. Implicature: Ivan started reading/read a part of this book
- (60) a. Ivan ne čital etu knigu.
Ivan not read-IPFV this book
‘Ivan didn’t read (any part of) this book.’
b. Assertion: Ivan didn’t start reading/read any part of this book
c. (no relevant implicatures)

To make these intuitions formally explicit, let us assume the semantics for Slavic aspect as in (61) (e.g., [Altshuler, 2012, 2016](#)). These are simplified denotations that ignore interaction with time and discourse as well as the diversity of perfective prefixation in Slavic. But they suffice for the purpose of this paper as they emphasize the main difference between PFV and IPFV relevant for us here. Both PFV and IPFV are functions from a set of events provided by VP to a set of states of these events. PFV returns a set of final states, whereas IPFV returns a state of beginning states.

- (61) a. $PFV \rightsquigarrow \lambda P \lambda s. \exists e[s = FIN(e) \wedge P(e)]$
 b. $IPFV \rightsquigarrow \lambda P \lambda s. \exists e[s \subseteq BEG(e) \wedge P(e)]$

Given these denotations, the truth-conditions of simple negative sentences are as shown in (62) and (63). As beginning and finishing of the event stands in the asymmetrical entailment relation, PFV, but not IPFV, has enriched truth-conditions as shown in (63)c.⁸

- (62) a. Mark ne čital knigu. ‘Mark not read-IPFV book’
 b. $\neg \exists s \exists e[s \subseteq BEG(e) \wedge read(mark, book, e)]$
 (63) a. Mark ne pročitao knigu. ‘Mark not read-PFV book’
 b. $\neg \exists s \exists e[s = FIN(e) \wedge read(mark, book, e)]$
 c. enriched meaning:
 $\neg \exists s \exists e[s = FIN(e) \wedge read(mark, book, e)] \wedge \exists s \exists e[s \subseteq BEG(e) \wedge read(mark, book, e)]$

We will see shortly that the enriched meaning of PFV-sentences is responsible for the aspectual restriction in Slavic imperatives and desire statements when the Control

⁸For the purpose of this paper, it is not important which mechanism we use for deriving the enriched meaning of PFV. For example, we can use the exhaustification mechanism used for deriving Scalar Implicatures and the distribution of Polarity Sensitive Items ([Chierchia, 2004, 2013; Chierchia et al., 2012](#), a.o.). What is important for us here is that the mechanism ensures that the enriched meaning arises only in negative sentences.

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Condition is present. In order to see this let us abbreviate the sentences above as follows:

- (64) ‘Mark not read-PFV book’ uttered by S in c =
 S is publicly committed to ‘Mark didn’t finish reading the book’ (assertion)
 and S believes that ‘Mark began reading the book’ (implicature):

$$\Box^{PB_s} \neg FIN(read(m, b)) \wedge \Box^{B_s} BEG(read(m, b))$$

- (65) ‘Mark read-IPFV book’ uttered by S in c =
 S is publicly committed to ‘Mark didn’t begin reading the book’:

$$\Box^{PB_s} \neg BEG(read(m, b))$$

Using the above abbreviations, modalized sentences like imperatives will look as follows:⁹

- (66) a. ‘not open-IMP.PFV door!’

$$\Box^{PB_d} \Box^R \neg FIN(open(u, d)) \wedge \Box^{B_s} BEG(open(u, d))$$

 b. ‘not open-IMP.IPFV door!’

$$\Box^{PB_d} \Box^R \neg BEG(open(u, d))$$

The aspectual restriction and its weakening are derived similarly to directive and subjunctive obviation with the only difference that instead of *Director’s Anticipation* (whose presence depends on co-reference) the contradiction is derived via the aspectual inference with PFV. To see this, let us restate *IEC* in terms of aspect, see (67), which is a subcase of our *IEC* in (39).

- (67) If a sentence translatable as $\Box^R p_a$ is uttered in c AND there are no indications that $\neg \Box^{B_a} (TRY(a, p) \rightarrow p)$, then $\Box^{PB_s} (BEG(a, p) \rightarrow FIN(a, p))$

⁹We make the standard assumption that in negative imperatives, negation scopes below the imperative operator (Han, 1999; Zeijlstra, 2006, a.o.) and desires have the Neg-raising interpretation.

Let us first consider PFV in intentional and accidental contexts, as, for example, in (9) and (11) respectively. In intentional contexts, we have:

(68) Sub-proof:

1. $\Box^{PB_s}\Box^R\neg FIN(a, p) \wedge \Box^{B_s}BEG(a, p)$ [enriched meaning of PFV]
2. $\Box^{PB_s}(BEG(a, p) \rightarrow FIN(a, p))$ [IEC]
3. $\Box^{B_s}FIN(a, p)$ [1,2,system K]

This result, as we know, contradicts *EUC* which requires that that the speaker considers $FIN(a, p)$ and $\neg FIN(a, p)$ epistemically possible (i.e., $\Diamond^{B_s}FIN(a, p) \wedge \Diamond^{B_s}\neg FIN(a, p)$).

In accidental contexts, we have (69) which is compatible with *EUC*. Thus, the aspectual restriction is lifted in accidental contexts.

- (69) 1. $\Box^{PB_s}\Box^R\neg FIN(a, p) \wedge \Box^{B_s}BEG(a, p)$ [enriched meaning of PFV]
2. $\Diamond^{PB_s}(BEG(a, p) \wedge \neg FIN(a, p))$ [IEC]

Given our assumption regarding the meaning of IPFV, which we assume does not give rise to relevant implicatures, speaker’s belief that $FIN(a, p)$ does not obtain in intentional contexts, thus no contradiction arises and no aspectual restriction is observed.

It is easy to see that infinitival desire statements receive an identical explanation employing the assumptions spelled out for subjunctive obviation in section 5.1.

5.3 Summary and more roles

Generally speaking, our account for subjunctive obviation, aspectual restriction, and their weakening in accidental contexts revolves around the (im)possibility of deriving *Director’s Anticipation* (or a similar principle for the attitude holder in desire statements) or its equivalent in the aspectual restriction via the obligatory inference of PFV. These principles are not active in two cases: i - when the director/attitude

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holder and the instigator are not co-referential and ii - when the action is not fully controlled by the instigator.

We can take our reasoning a step further and represent the second case (accidental actions) in terms of two distinct roles in directives or desire statements. That is to say, we can divide the instigator role into *initiator* (the individual who initiates and supervises the action) and *performer* (the individual who performs the action overseeing its completion). Then, intentional (and thus, fully controlled) actions will be actions in which the initiator and the performer are the same individual. Accidental actions, on the other hand, will involve a perspectival shift. Recall our Greek example in (19), in which the performer is no longer identical to the initiator as part of the performer’s role is played by the mother. We can say that in accidental actions, such as winning the lottery, the performer role can be shared between the initiator and luck. Using this perspective, accidental actions require disjoint reference between the initiator and the performer.

The three role distinction described above is familiar from work of, for example, [Potsdam 1998](#). The famous examples of three role imperatives are shown in (70). For instance, in (70)a, the director is the speaker, the initiator is General Lee, and the performer role is played by the soldiers who will be building the bridge. The important character of the examples in (70) is that there must be a relation of social control or subordination between the initiator and the performer.

- (70) a. Your soldiers build that bridge, General Lee!
- b. Your guards be the diversion while we sneak in!
- c. Those children of yours keep out of my garden, or I’ll set the dog on them! [\(Potsdam 1998\)](#)

A similar example can be found with the aspectual restriction in Slavic. In Eastern Slavic (Russian, Ukrainian, Belarus), strong deontic modals exhibit the aspectual restriction identical to the one we saw with imperatives and infinitival desire statements (Forsyth, 1970; Rappaport, 1985; de Haan, 1997, a.o.).

- (71) a. Ivan dolžen uxodit' / ujtī. (Russian)
 Ivan must-PTCP leave-INF.IPFV / leave-INF.PFV
 ‘Ivan must leave.’
- b. Ivan ne dolžen uxodit' / *ujtī.
 Ivan not must-PTCP leave-INF.IPFV / leave-INF.PFV
 ‘Ivan doesn’t have to leave.’

Interestingly, the aspectual restriction is lifted when obligations are set on the addressee rather than the subject. In out-of-the-blue context in examples in (71), the obligations are set on the subject (= Ivan). Consider now the context in (72), in which police officers are ordered to stop Ivan from leaving. The obligations to stop Ivan from leaving are on the addressee (= police officers). In this context, PFV under negated deontic modals becomes available.

- (72) Context: Police arrive at a crime scene and see Ivan fleeing with the stolen *Mona Lisa*. A police chief to police officers:
- Ivan ne dolžen ujtī!
 Ivan not must-PTCP leave-INF.PFV
 ‘Ivan must not leave/escape.’

Applying our three role terminology to this example, we have: the director is the speaker (= Police Chief), the initiator are police officers, and Ivan is the performer.

6. PREVIOUS LINGUISTIC ACCOUNTS

In this section, we discuss most prominent accounts of the weakening effect in subjunctive obviation and aspectual restriction. One of the first proposals for capturing

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intentionality in language is that of [Farkas 1988](#), and its extension to weakening of subjunctive obviation in [Farkas 1992](#). Although [Farkas \(1988\)](#) did not directly aim at explaining subjunctive obviation, she was (one of the) first to propose a way to capture intentional/accidental distinction in the grammar by using a RESP(onsibility) relation. This relation (or a related operator) was later used in [Farkas 1992](#) to account for subjunctive obviation and its weakening and in [Szabolcsi 2010](#) to explain subjunctive obviation in combination with the behavior of Positive Polarity Items (PPIs) (see section 7.2). RESP was also considered and rejected by [Schlenker \(2005, 2011\)](#) when analyzing subjunctive obviation in French and used by [Grano \(2017\)](#) to provide the semantics for *intend* as an attitude predicate.

[Farkas \(1988\)](#) aimed at explaining controller choice in sentences like (73), that is to say the fact that in (73)a the implicit argument PRO in the embedded clause refers to John, whereas in (73)b, PRO refers to Mary. For this purpose, she postulated a new semantic relation RESP defined in (74).

- (73) a. Mary convinced John to leave.
b. Mary promised John to leave.

- (74) “RESP(*i,s*) holds between an individual *i* (initiator) and a situation *s* just in case *i* brings *s* about, i.e., *s* is the result of some act performed by *i* with the intention of bringing *s* about.” ([Farkas, 1988](#), 36)

[Farkas \(1988\)](#) argues that RESP is not reducible to the traditional thematic role of an agent. One argument for this is that the initiator *i* of RESP does not have to be a participant in the situation *s*, which *i* brings about. For instance, in (75), John is the initiator of the situation described by the embedded clause, but not a participant in it. An agent cannot be a non-participant.

- (75) John promised Mary that the children will be in bed by 8. (ibid. p. 36)

According to Farkas, *convince* and *promise* are RESP-inducing in that they have RESP among their satisfaction conditions. The difference between (73)a and (73)b is that *convince* requires the first argument of RESP to be associated with the direct object in the matrix clause, whereas *promise* requires the first argument of RESP to be associated with the matrix subject. In the unmarked situation (canonical control), the controller choice falls on the matrix argument that bears RESP to *s* when the controlled argument is also in RESP with respect to *s*. The important contribution of Farkas’ work is that it demonstrated the need to distinguish intentionality from agentivity, a closely related, but distinct grammatical concept.

Farkas (1988) argues that the absence of RESP can be tested, for example, by the unavailability of the modification by rationale clauses introduced by *in order to*, (76). Recall also our example in (50).

- (76) a. John read ‘Anna Karenina’ in order to impress Mary.
 b. # John resembles his father in order to annoy his grand mother. (Farkas, 1988, 36)

Farkas (1992) also applies RESP to account for weakening of subjunctive obviation by suggesting that in order for the obviation effect to emerge, both the subject of the matrix clause and the subject of the embedded clause have to stand in RESP relation to the situation described by the complement. If either of RESPs is deficient, the obviation effect is weakened, as we saw in section 2.1.

The RESP-account has been criticized with respect to its direct application to the subjunctive obviation. For example, Schlenker (2005) provides the examples in (77) to question whether RESP is a right kind of relation. He points out that it is not obvious in what sense Jean is responsible for being handicapped in (77). Nonetheless, the obviation effect obtains, compare (77)a with (77)b. Schlenker (2005, 2011) proposes an alternative account for subjunctive obviation and its weakening in terms of event-De-Se construal. This account, however, cannot be straightforwardly extended

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to the aspectual restriction and its weakening (nor to other phenomena that exhibit the intentionality effect, see section 7.2), so we leave it behind the scenes and refer the interested reader to the cited papers for details.

- (77) a. Jean₁ ne se console pas qu’il_{*1/2} soit handicapé. (French)
 ‘Jean cannot console himself that he is handicapped.’
 b. Jean ne se console pas d’être handicapé.
 ‘Jean cannot console himself to be handicapped.’ (Schlenker, 2005, 294)

More recent accounts notice the parallelism between subjunctive obviation and its weakening and other similar phenomena. For example, Zu (2018), building on Szabolcsi 2010, proposes a unified syntactic account for subjunctive obviation, ditribution of PPIs, and verbal inflection in Newari (the later two phenomena are illustrated in section 7.2). Specifically, Zu (2018) postulates a Sentience projection (SenP) at the left periphery of attitude complements, whose specifier hosts a perspectival expression (building on ideas in Speas and Tenny 2003). This Sen-head comes with a different featural mark-up in what Zu calls canonical control (RESP), non-canonical control (non-RESP), and non-control, (78). In canonical control, Sen comes with an unvalued ϕ -features, which triggers domain suspension as in Bobaljik and Wurmbrand 2013, making the searchable domain of canonical control as large as the matrix CP, (78)a. In non-canonical control, Sen comes only with an unvalued feature [uD], which is valued by PRO via Spec-head agreement and the domain is closed off at SenP, (78)b. In non-control cases Sen has no uninterpretable features and thus, Sen can host any perspectival expression, (78)c.

- (78) a. Canonical control (RESP):
 [CP DP_{iD,i\phi} V [SenP PRO_{iD,u\phi} Sen_{uD,u\phi} [TP t_{PRO} V ...]]]

b. Non-canonical control (non-RESP):

$$[CP DP_{iD,i\phi} V [_{SenP} PRO_{iD,u\phi} Sen_{uD} [TP t_{PRO} V \dots]]]$$

c. Non-control:

$$[CP DP1_{iD,i\phi} V [_{SenP} DP2_{iD,i\phi} Sen [TP t_{DP2} V \dots]]]$$

For subjunctive obviation, Zu proposes that subjunctive sentences are ambiguous between non-canonical control, (78)b, and non-control, (78)c. The former is associated with no-RESP interpretation and allows the matrix and embedded subjects co-refer (weakening of obviation). The latter represents core cases of subjunctive obviation (i.e., no co-reference between the matrix and embedded subjects).

Apart from the fact that Zu’s proposal leaves the role of RESP unexplained, her proposal is tailored for the bi-clausal structure of infinitives and subjunctives. Thus, it is not clear how it can be extended to imperatives, as well as other mono-clausal cases.

To the best of my knowledge there is no fully developed account of weakening of the aspectual restriction in Slavic languages, although the literature mentioned in section 2.2 discusses this effect in various descriptive terms.

One fully fledged account I am aware of is [Despić 2020](#). [Despić \(2020\)](#) puts forward a purely syntactic account of the aspectual restriction in Slavic and exceptions to it with non-intentional actions. His account uses the following four assumptions: First, there is an Agree-relation between the imperative (imp) and the inflection on the verb (in Asp). Second, the imperfective aspect is located above vP, whereas the perfective aspect is below vP (e.g., [Svenonius 2004](#)). Third, imp cannot scope below negation ([Han, 1999](#); [Zeijlstra, 2006](#), a.o.). Fourth, the Phase Impenetrability Condition (PIC) is as defined in [Chomsky 2001](#), that is to say, the (complement of the) lower phase becomes unavailable for syntactic operations as soon as the higher phase head is merged. Provided these assumptions, the derivation of positive imperatives looks as in (79), where imp can Agree with both Asp1 and Asp2.

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- (79) a. Otkryvaj okno! ‘open-IMP.IPFV window’

[_{TP} imp [_{AspP1} Asp1-IPFV [_{vP} v [_{VP} ...]]]]

- b. Otkroj okno! ‘open-IMP.PFV window’

[_{TP} imp [_{vP} v [_{AspP2} Asp2-PFV [_{VP} ...]]]]

In negative imperatives, on the other hand, only the imperfective can Agree with imp, (80)a. This is because NegP is merged and imp (base-generated in T) is required to move to CP (the next phase up) to out-scope negation. As soon as C is merged, the complement of vP (including the perfective aspect Asp2) is unavailable for Agree, (80)b.

- (80) a. Ne otkryvaj okno! ‘not open-IMP.IPFV window’

[_{CP} imp [_{NegP} Neg [_{TP} T [_{AspP1} Asp1-IPFV [_{vP} v [_{VP} ...]]]]]]

- b. * Ne otkroj okno! ‘not open-IMP.PFV window’

[_{CP} imp [_{NegP} Neg [_{TP} T [_{vP} v [_{AspP2} Asp2-PFV [_{VP} ...]]]]]]

According to this system, the exceptions with unintentional actions are explained as follows: in unintentional configurations, vP is a weak phase (or a non-phase), thus PIC does not preclude Agree between imp and Asp2-PFV, (81):

- (81) Ne upadi! ‘not fall-IMP.PFV’

[_{CP} imp [_{NegP} Neg [_{TP} T [_{vP} v-weak [_{AspP2} Asp2-PFV [_{VP} ...]]]]]]

One immediate problem with the system above is that it can account only for the exceptions to the aspectual restriction with unaccusative verbs and predicates like *forget*. It is plausible to claim that with these verbs, vP is a weak phase (or a non-phase). It is much less plausible to claim the same thing for agentive transitive verbs like *open* and *tell* when they are used in non-intentional contexts. Even more problematic is that the syntactic account cannot explain the identical aspectual restriction with infinitival desire statements (and exceptions to it) in Eastern Slavic languages. This is because the syntactic analysis crucially depends on imp moving

above negation to CP (for scopal reasons). No such movement is necessary for *want*. Furthermore, the syntactic account for Slavic aspectual restriction developed in [De-spić 2020](#) cannot extend to subjunctive obviation or any other phenomena exhibiting the intentionality effect.

To summarize, we have seen that the dependence of grammatical phenomena on the interpretation of the action did not go unnoticed. Both semantic and syntactic accounts have been put forward to explain this curious effect. Moreover, recent accounts recognise the need to construct a unified analysis. The present paper can be viewed as part of this joint effort by combining two phenomena that have not been treated together so far.

7. GENERAL NOTES ON ACCIDENTALITY

This section contains some general notes regarding intentionality and its presence in the grammar. We start with some cursory philosophical remarks (section 7.1 and then provide a list of additional linguistic phenomena that are sensitive to the interpretation of the action (section 7.2). The goal of this section is to attract interest to the topic and provide some preliminary resources to interested scholars.

7.1 Some philosophical remarks

This section discusses the development of concepts related to intentions and intentional actions in philosophy. It is not a review of the relevant philosophical literature. Nor does it make justice to the complexity of the subject. Its goal is to provide some background to the idea of capturing intentions in terms of accidentality used in this paper.

We start in Ancient Greece. Aristotle defines an action as voluntary if its outcome is desirable, the action is “in a man’s own power”, and is done “with knowledge, i.e. not in ignorance either of the person acted on or of the instrument used or of the

end that will be attained” (Aristotle, *Ethica Nicomachea*, V, 10 in [Aristotle 1941](#)). Since Aristotle, philosophical reflections on the nature of intentions and intentional actions have revolved around two key components: desire and belief ([Anscombe, 1957](#); [Davidson, 1963, 1980, 2001](#); [Bratman, 1987, 1999](#); [Velleman, 1989](#); [Raz, 2011](#), a.o.). If the agent of the action does not desire to bring about a particular outcome and/or the outcome is not foreseen, the action has been considered to be unintentional/involuntary.

In the recent literature, a third component - control, “man’s own power” - is added, (e.g., [Mele and Moser, 1994](#)). When an action is beyond one’s abilities or is performed under coercion, such an action is not voluntary or intentional (in everyday sense), although the outcome may be highly preferable and foreseen.

However, the presence of control (in addition to desire/motive and belief/foreseeing) does not necessarily guarantee that the success of one’s action is immune to luck ([Pritchard, 2005, 2016](#); [Horst, 2015](#)). Let me borrow an example from [Pritchard 2016](#). Imagine a skillful archer who confidently hits the target, but unbeknownst to her most targets on the field are fitted with an invisible force field that repels arrows and she just happens to choose the one that is not. Intuitively, the archer’s success is still accidental, although all three ingredients - desire, belief, and control (or skillfulness) - are present. It is this notion of luck or accidentality that has been exploited in this paper.

7.2 Other intentionality phenomena

Co-reference and aspect choice discussed in this paper are not the only domains of the grammar sensitive to the interpretation of the action as (un)intentional, (in)voluntary, or (non)accidental. Similar phenomena have been observed in different languages and different domains of the grammar. We already saw that interpretation of the action as non-intentional affects case marking in Hindi/Urdu and Central Pomo

and can be signalled by a specialized ‘out-of-control’ circumfix in Salish. Below, we will see some more examples of grammatical phenomena exhibiting the intentionality effect found in the literature. By putting these observations side by side, we try to underscore the universal nature of the intentionality effect

The first two phenomena we look at concern the polarity system. Szabolcsi (2004) observes that PPI anti-licensing in the infinitival complement of *not want* is sensitive to the interpretation of the action in the complement clause. When the action is intentional/non-accidental (as in the case of *call* and *eat*), some cannot have a narrow scope interpretation, (82)a, whereas with unintentional/accidental actions (like *offend* or *break*), *some* can be interpreted under negation, (82)b.

- (82) a. I don’t want to call someone/eat something. (^{ok}some>not /^{*}not>some)
 b. I don’t want to offend someone/break something. (^{ok}some>not /^{ok}not>some) (Szabolcsi, 2004, fn.10)

This contrast is not limited to English. It has also been found in Hungarian, Polish, Russian, Romanian, and Hebrew.

The second phenomenon pertains to Free Choice Items (FCIs). In some Romance languages (French, Italian, Spanish) and Korean, FCIs (polarity sensitive expressions whose meaning and distribution is close to English *whatever*) are fully acceptable with intentional actions, (83)a, but become deviant with accidental actions, (83)b (Choi and Romero, 2008; Alonso-Ovalle and Menendez-Benito, 2017, a.o.).

- (83) a. ??Ayer Juan tropezó con un objeto cualquiera. (Spanish)
 yesterday Juan stumbled with an object whatever
 ‘Yesterday Juan stumbled against any / a random object.’
 b. Juan necesitaba un pisapapeles, de modo que cogió un libro
 Juan needed a paperweight, of way that took a book
 cualquiera de la estantería y lo puso encima de la pila.
 whatever from the shelf and it put on.top of the pile

‘John needed a paperweight, so he took a random book from the shelf and put it on top of the pile.’ (Choi and Romero, 2008, 96-7)

Our third phenomenon concerns verbal inflection in Newari (Sino-Tibetan). As already mention above, in Newari, the disjunct inflection with co-referential subjects is normally ungrammatical, (84)a, but it becomes possible when the action is accidental or non-controlled, (84)b,c (e.g., Hale, 1980; Wechsler, 2018; Zu, 2018).

- (84) a. wõ: [wa ana wan-a dhakā:] dhāla (Newari)
 (s)he-ERG (s)he there go-PST.DISJ that said
 ‘(S)he₁ said that (s)he_{*1/2} went there.’
- b. Shyam-a dhāl-a ki [wõ: masika shun
 Shyam-ERG say-PST.DISJ that s/he-ERG accidentally someone
 nāpalāt-a]
 meet-PST.DISJ
 ‘Shyam₁ said that he₁ accidentally ran into someone.’
- c. Shyam-a dhāl-a ki [wa birāmi jul-a].
 Shyam-ERG say-PST.DISJ that he ill become-PST.DISJ
 ‘Shyam₁ said that he₁ became ill.’ (Zu, 2018, 70,146,147)

These three phenomena combined with subjunctive obviation, aspectual restriction, case marking, and ‘out-of-control’ morphology demonstrate the range and diversity of grammatical domains affected by the interpretation of the action as intentional versus accidental. Little research has been carried out on these phenomena and then only focused on individual cases or a subset of cases. No overarching theory of the linguistic underpinnings of the intentionality effect has been formulated yet.

8. CONCLUSION

The primary goal of this paper is to open the discussion of the role of intentionality in the grammar and to urge more research in this direction. We saw that the grammatical phenomena that show the intentionality effect is very rich and spans

unrelated languages and distant domains of the grammar. Natural languages have developed multiple ways to mark the presence or absence of intentionality ranging from availability of a co-referential interpretation in subjunctive obviation configurations in many European languages and aspect choice in Slavic (explored in this paper) to a dedicated ‘out-of-control’ morpheme in Salish and different case marking in Hindi/Urdu and Central Pomo. These observations call for an overarching theory of the intentionality effect in the grammar. This paper is one of the steps towards such a theory. It focuses on two concrete phenomena - weakening of subjunctive obviation and aspectual restriction - and proposes a unifying semantic-pragmatic account for these phenomena.

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