

INTERNAL CAUSATION IN SLOVENE: CONSTRUCTIONS WITH THE MORPHEME *SE* AND EXPERIENCER DATIVES¹

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Abstract

The paper is a reanalysis of sentences traditionally labelled “involuntary state constructions” as sentences expressing internally caused events which are beyond a person’s own control; in other words, as “internal causatives” (e.g. *Petru se spi* ‘Peter feels like sleeping / Peter is sleepy’). The analyses of Slovene internal causatives and equivalent structures in other languages fall into two major groups: causative and non-causative analyses. I show that Slovene data provide evidence in support of causative analysis, rather than modal (Rivero & Milojević Sheppard 2003) or the null FEEL-LIKE analysis (Marušič & Žaucer 2006). Furthermore, the evidence I present supports the view that Slovene internal causatives are monoclausal structures, with *se* functioning as a role-reducing operator and the Experiencer dative as an indirect object (as argued by Moore & Perlmutter (2000) for Russian), rather than a syntactic subject (Marušič & Žaucer 2006) or an adjunct (Rivero & Milojević Sheppard 2003). This study, carried out within the Government and Binding Theory and current generative theories of argument structure, also puts forward a unified approach to Slovene internal causatives and anticausatives (e.g. *Vaza se razbije* ‘The vase breaks’) as a single class of derived causatives based on the role of *se* during their derivation. I discuss syntactic and semantic similarities between Slovene internal causatives and anticausatives to provide evidence that both types of causative sentences display the same “causative *se*”, which reduces the external argument of a verb in the lexicon. In addition, I point out that syntactic differences between Slovene internal causatives and anticausatives, regarding their external arguments and the transitivity properties, are not evidence against the unified treatment, since they are independent of *se*. Finally, this paper compares causative *se* with other types of *se* in Slovene and briefly outlines my unified analysis of *se*, which assumes that *se* in all its manifestations represents the same non-referential morpheme, and that the impact of *se* on a verb’s argument structure is determined by the properties of different classes of input verbs, rather than any inherent properties of *se*.

1. Introduction

This paper deals with Slovene sentences with *se* and Experiencer datives which, as I will argue, have a reduced external argument in their syntax and an unspecified cause in their semantics. Adopting the framework of Government and Binding Theory and current generative theories of argument structure and the syntax-semantics interface, I will also demonstrate that the external argument in these sentences appears to be demoted to the indirect object, while the unspecified cause is interpreted as internal. Since these sentences express internally caused events, I refer to them as “internal causatives”.

The two pairs of sentences below illustrate the relationship between the agentive sentence and the sentence expressing an internally caused event.² We can see that in

¹ I would like to thank Cécile de Cat, Diane Nelson, Anna Siewierska, Melinda Whong and an anonymous reviewer for their helpful feedback and comments on earlier drafts of this paper.

² This study was carried out with the help of the *FidaPlus* corpus maintained by the Faculty of Arts at the University of Ljubljana, and the *Nova beseda* corpus maintained by the Janez Ramovš Institute of Slovene Language at the Slovene Academy of Science and Arts. To ensure that my conclusions about

(2) and (4) the DP *Peter* and the 1st person singular pronoun are in the dative case, which suggests that their semantic role is that of an Experiencer rather than an Agent.³ As a result, the verbs in (2) and (4) do not agree with the understood subject, but have a default form, which in Slovene, is the 3rd person singular on finite forms and the singular neuter on participles. In addition, (2) and (4) display the morpheme *se*.⁴

- (1) Peter je rigal.
Peter.NOM AUX.3SG belch.PCP.SG.MASC
'Peter belched.'
- (2) Petru se je rigalo.
Peter.DAT SE AUX.3SG belch.PCP.SG.NEUTER
'Peter belched (involuntarily).'
- (3) Ne grem na reko.
NEG go.1SG.PRES on river
'I'm not going on the river.'
- (4) Ne gre se mi na reko.⁵
NEG go.3SG.PRES SE I.DAT on river
'I don't feel like going on the river.'

It is also apparent that despite sharing the same syntactic structure on the surface, (2) and (4) have different semantic interpretations, also indicated in the translations. While (2) describes an involuntary event, (4) expresses a desire or disposition, or rather lack of it, which is usually captured in the 'feel-like' translation. This semantic difference can be demonstrated by paraphrasing the above sentences by

Slovene sentences with *se* and Experiencer datives are based on the actual usage, all examples used in this paper are attested, taken from various written and spoken sources, and judged acceptable by Slovene speakers, unless otherwise indicated.

³ Across languages, the dative in sentences like (2) and (4) is analysed as inherent case typically associated with the θ -role of Experiencer (Marušič & Žaucer 2006: 1105, Anderson 1990: 257).

⁴ In this paper the morpheme *se*, traditionally referred to as a reflexive morpheme, is glossed as SE rather than *self* because its meaning is reflexive in only one use, termed here reflexive/reciprocal *se* (see section 4). The same applies to the *se*-cognate morphemes in other languages discussed here; the Polish *-się* is glossed as -SIE and the Russian *-ся* as -SJA. Other abbreviations used in the glosses are: 1 = first person, 3 = third person, SG = singular, PL = plural, MASC = masculine, FEM = feminine, NEUTER = neuter, PRES = present tense, PAST = past tense, NOM = nominative, ACC = accusative, DAT = dative, GEN = genitive, PART = partitive, AUX = auxiliary, PCP = participle, INFIN = infinitive, SUPINE = supine, NEG = negation, PERF = perfective, CAUSE = causative, TRANS = transitive, INTRANS = intransitive. Although the examples are taken from various sources, glosses in this paper have been made consistent.

⁵ The original example taken from the *Naša beseda* corpus is as follows:

- (i) Če bi bilo po starem, bi moral ob teh poplavnih
if would be.PCP.SG.NEUTER as usual would must.PCP.SG.MASC at these flood
vodah biti prvi na reki. Toda ne gre se mi na vodo.
waters be.INFIN the+first on river but NEG go.3SG.PRES SE I.DAT on water
'Normally, I should be the first on the river in these floods. But I don't feel like going on the water.'

In (4) this example is adapted to avoid ambiguity because it could be interpreted to mean 'I don't feel like having a wee' when taken out of context. Its syntax and semantics, however, are preserved.

using the verbs which express a desire or disposition: *dati* ‘give’, *ljubiti* ‘love’ (both normally used in negative and interrogative sentences), *hoteti* ‘want’, *luštati* ‘desire’ or *marati* ‘like’.⁶ We can see below that only (4), expressing (lack of) disposition, can be paraphrased with these verbs, while (2), expressing an involuntary event, is not compatible with the idea of disposition. Hence the oddness of (6).

(5) Ne da / ljubi se mi iti na reko.
 NEG give.3SG.PRES / love.3SG.PRES SE I.DAT go.INFIN on river
 ‘I don’t feel like going on the river.’

(6) ??Petru se je hotelo / luštalo rigati.
 Peter.DAT SE AUX.3SG want.PCP.SG.NEUTER / desire.PCP.SG.NEUTER belch.INFIN
 Intended: ‘Peter felt like belching (involuntarily).’

Despite this semantic contrast, sentences like (2) and (4) are normally treated under a single heading. There are several terms used by researchers to refer to this construction, depending on which features they want to highlight, e.g. constructions expressing involuntary actions (Herrity 2000), dative existential disclosure constructions (Rivero & Milojević Sheppard 2003), intensional FEEL-LIKE constructions (Marušič & Žaucer 2006), dispositional reflexive constructions (Franks 1995, for Russian), experiencer unergatives (Markman 2003, for Russian), desideratives (Harris 1981, for Georgian).

In section 2.2 I will discuss, among others, two recent accounts of Slovene sentences with *se* and Experiencer datives, namely by Rivero & Milojević Sheppard (2003) and Marušič & Žaucer (2006). Their analyses, however, only account for sentences expressing disposition or desire, such as (4), and not for those expressing involuntary events, such as (2). They treat sentences like (2) and (4) as two distinct constructions, and do not take into account that some sentences with *se* and Experiencer datives can have both interpretations. As we see, sentences (7) and (8) express either disposition or involuntary events.

(7) Janezu se spi.
 Janez.DAT SE sleep.3SG.PRES
 ‘Janez is sleepy. / Janez feels like sleeping.’
 (Rivero & Milojević Sheppard 2003: 137)

(8) Za-spalo se mu je.
 PERF-sleep.PCP.SG.NEUTER SE he.DAT AUX.3SG
 ‘He felt like falling asleep. / He dropped off.’
 (Marušič & Žaucer 2006: 1130)

Since the above approaches assume different syntactic structures for sentences expressing involuntary events and those expressing disposition, examples like (7) and (8) present a problem for these approaches, because the interpretation of these sentences depends solely on the pragmatics. Examples like (7) and (8) demonstrate

⁶ Marušič & Žaucer (2006: 1148) note that the verb *dati* ‘give’ in internal causatives occurs not only in negated sentences and questions, but also in some types of declarative sentences: restrictive relative clauses to a universal quantifier; when *dati* ‘give’ is contrastively focused; in ironic positive sentences, etc. Although Marušič & Žaucer do not point it out, their claims about *dati* ‘give’ apply equally to *ljubiti* ‘love’. The verb *luštati* ‘desire’ is colloquial, while *marati* ‘like’ is now obsolete in this use.

that it is not possible to make a clear distinction between sentences expressing disposition and those expressing involuntary events; therefore I propose an analysis that can account for both. Contrary to Rivero & Milojević Sheppard and Marušič & Žaucer, I argue that the differences between the two types of sentences are only pragmatic in nature, and that there is no need to assume two syntactic analyses for the sentences in question.

As an alternative unified approach I propose that the semantic property that all Slovene sentences with *se* and Experiencer datives have in common is a kind of compulsion or internal force which causes Peter to belch in (2), and which causes the speaker not (to have a desire) to go on the river in (4). The semantic interpretation of these sentences, at least in Slovene, involves a cause coming from within, therefore an internal, rather than external cause. Like the external cause in anticausatives (illustrated in (9)), internal cause in internal causatives is unspecified, and is understood rather than overtly expressed. However, just like the presence of the external cause in anticausatives can be reflected by the phrase (*kar*) *sam/a/o od sebe*, meaning ‘(all) by itself’ (as in (9)), the internal cause in internal causatives can also be reflected by a phrase meaning ‘(all) by itself’: *samo od sebe* or *kar samo*, as in (10) and (11).

(9) Vaza se je razbila (sama od sebe).
 vase.NOM.FEM SE AUX.3SG break.PCP.SG.FEM (all.FEM by itself)
 ‘The vase broke (all by itself).’ (anticausative)

(10) Samo od sebe se mi je začelo pisati.
 all by itself SE I.DAT AUX.3SG start.PCP.SG.NEUTER write.INFIN
 ‘I started to write involuntarily.’ (internal causative)

(11) Kar samo se ji je smejalo.⁷
 by itself SE she.DAT AUX.3SG laugh.PCP.SG.NEUTER
 ‘She laughed involuntarily.’ (internal causative)

Slovene sentences with *se* and Experiencer datives thus represent an interesting case of causation being expressed in a language. Though they are agentless, they always imply an unspecified internal cause which brings about an event that is beyond a person’s control. As illustrated in the examples above, they describe human actions (like sleeping and laughing) which, according to Pinker (2008: 69), are conceptualised as having some hidden cause inside the event participant.

In this paper I also propose that, based on the role of the morpheme *se* during their derivation, internal causatives and anticausatives, such as (9), together form a group of derived causatives in Slovene. Although anticausatives differ from internal causatives in that their agent is deleted rather than demoted to the indirect object, and that their unspecified cause is interpreted as external rather than internal, I argue that both types of sentences display the same type of *se* which reduces the verb’s external argument in the lexicon.

⁷ Example (11) shows that Slovene internal causatives can be formed from reflexive verbs, such as *smejati se* ‘laugh’. Although the reflexive is required by both the verb and the internal causative construction, only one *se* appears in the surface structure, serving for two compatible functions. This phenomenon, called haplology, can also be found in other Slavonic languages (Rivero 2004: 11, fn. 6, Zwicky 1977: 16).

The structure of the paper is as follows. In section 2 I review several analyses of sentences equivalent to Slovene internal causatives, and provide evidence in support of the claim that these sentences in Slovene are causative monoclausal structures, with *se* functioning as a role-reducing morpheme and the Experiencer dative as an indirect object. In section 3 I argue for a unified analysis of Slovene internal causatives and anticausatives as a single class of derived causatives based on the role of unified “causative *se*”, which reduces the verb’s subject role in the lexicon during the derivation of both types of causatives. Section 4 compares causative *se* with other types of *se* in Slovene, and introduces the idea that Slovene *se* is a single non-referential morpheme and that the different effects of *se* on the argument structure of verbs are determined by the properties of different classes of input verbs. The last section summarises the findings and points to some possible directions for further research.

2. Derivation of internal causatives

The analyses of sentences comparable to Slovene sentences termed here internal causatives fall into two groups: the causative analysis (Pylkkänen 1999, 2002, 2008, Markman 2003, Nelson 2000, Levin & Rappaport Hovav 1995) and the non-causative analysis (Marušič & Žaucer 2006, Rivero 2003, 2004, Rivero & Milojević Sheppard 2003, Moore & Perlmutter 2000). I will consider each of the analyses in turn, focusing mainly on what they say about the derivation and semantics of these sentences, and the status of the dative and the reflexive, if discussed. I will then show that evidence from Slovene supports the causative analysis and will also provide arguments in support of the claim that Experiencer dative DPs in Slovene internal causatives are indirect objects rather than subjects, and that Slovene internal causatives are monoclausal structures, in which *se* represents a non-argument role-reducing operator, reducing the external role of the verb.

2.1 Causative analysis

Levin & Rappaport Hovav’s (1995: 106) (henceforth L&RH) treatment of internal causatives (derived internally caused verbs in their terms) is relevant for the present study in several respects. First, they make a distinction between external and internal causation by pointing out that one type of causative alternation pair consists of verbs like *break* and their intransitive members, which describe *externally* caused eventualities that can occur spontaneously (i.e. anticausatives); while the other type consists of verbs like *laugh* and their transitive members, which describe spontaneous *internally* caused eventualities. Using the Government and Binding approach, L&RH (1995: 91) define internal causation as a property inherent to the argument of the verb which is “responsible” for bringing about the eventuality. For agentive non-derived internally caused verbs (*laugh, play, speak*) this property is the will or volition of the agent. On this view, therefore, internal causation subsumes agency. By contrast, the internal cause for animate but non-agentive non-derived internally caused verbs (*blush, tremble*) is some internal property of the argument, typically an emotional reaction, which is not under a person’s own control. According to L&RH (1995: 94), internal causation is initiated and residing in the single argument of a verb. This resembles Pesetsky’s (1995: 111) description of the cause in psychological verbs such as French *s’étonner* ‘be amazed’, which is viewed as the “natural force”, beyond conscious control of the individual, which produces an emotion and is internal to the individual who experiences this emotion.

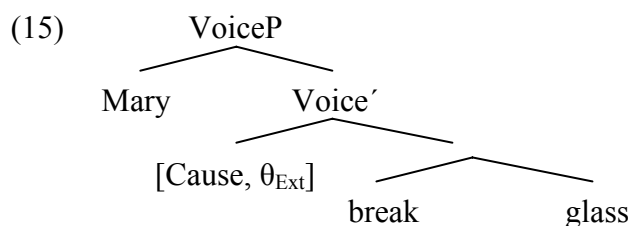
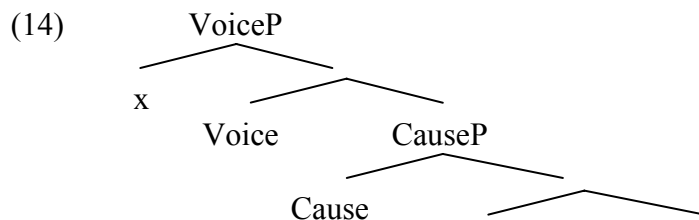
L&RH (1995: 106) also point out that cross-linguistically, the morphologically marked, and therefore derived form in these two types of causative alternation tends to be the intransitive form of an externally caused verb (*break*) and the transitive form of an internally caused verb (*laugh*). Among verbs describing spontaneously occurring eventualities, it is therefore the status of the eventuality as externally or internally caused that determines the morphological shape of the verb. Another important distinction between the two classes of verb is that externally caused verbs allow agents, instruments as well as natural forces or causes as external arguments, as opposed to internally caused verbs which allow only agents (L&RH 1995: 103).

Pylkkänen (1999) compares Finnish desiderative causatives like (12) (semantically equivalent to constructions termed here internal causatives) and English transitive variants of the (external) causative alternation like (13), which in her opinion illustrate parametric variation of voice bundling (1999: 11, 14).

- (12) Maija-a laula-tta-a.
 Maija-PAR sing-CAUSE-3SG
 ‘Something causes Maija to feel like singing.’

- (13) Mary broke the glass.

According to Pylkkänen’s syntactic analysis of causatives, in which she adopts Minimalist approach and which she fully develops in Pylkkänen (2002, 2008), languages like Finnish express Cause and Voice (i.e. the head that licenses the external θ -role) in two separate syntactic heads, as in (14) (2008: 99). In languages like English, on the other hand, Cause and Voice are grouped (bundled) together to form one syntactic head which introduces the causing eventuality and the external argument, as in (15) (2008: 100).



Consequently, Finnish, a non-voice-bundling language, can have causatives without external arguments like (12), while English, a voice-bundling language, can only have causatives with external arguments like (13).

On Pylkkänen’s view therefore, Finnish desiderative causatives like (12) and English transitive variants of the causative alternation like (13) represent the same phenomenon of causation, but displaying parametric variation. Contrary to L&RH (1995), Pylkkänen argues that the distinction between the internal and external

causation is not in the lexicon, i.e. the lexical semantic representation of verbs, but rather in the syntactic head which introduces the external argument.

The evidence that in Finnish cause can be independent of the external θ -role is the fact that sentences like (12) have no external argument although their meaning involves a causing event. According to Pylkkänen (1999: 11-13), the only argument in (12) is an internal argument rather than an external argument (since it appears in the objective partitive case) or an implicit agent (since it does not allow control into purpose clauses). Despite the fact that no participant of the causing event is introduced, it is nevertheless present in the meaning of the sentence since it can be questioned, as in (16), and can be picked up by a sluicing construction like (17) (Pylkkänen 2008: 98).

(16) a. Maija-a laula-tta-a.
 Maija-PAR sing-CAUSE-3SG
 ‘Something causes Maija to feel like singing.’

b. Mikä?
 what.NOM
 ‘What (causes Maija to feel like singing)?’

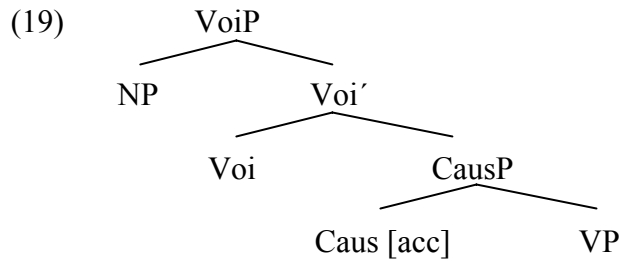
(17) Minu-a naura-tta-a mutt-en tiedä mik.
 I-PART laugh-CAUSE-3SG but-not.1SG know what.NOM
 ‘Something makes me feel like laughing but I don’t know what (makes me feel like laughing).’

Crucially, Finnish construction (12), repeated in (16a), does not simply mean ‘Maija feels like singing’, but involves a causing event, which according to Pylkkänen (1999: 13) can be interpreted as ‘her happiness’ or anything that can describe an internal mental state of the Experiencer. Since there is no external argument, cause must be realised independently of voice.

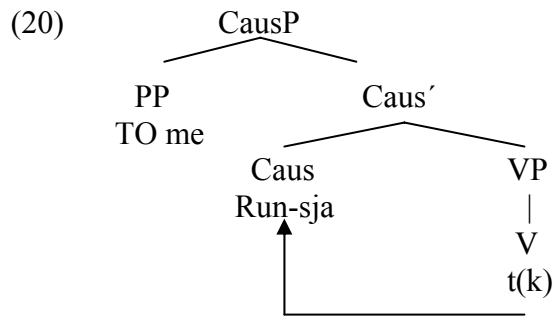
Markman (2003: 431-432), another proponent of the causative approach, treats internal causatives (experiencer unergative constructions in her terms) as causatives without causers, because they involve an unergative verb with a causativised meaning, but have no Agent/Causer and no implied agent. Instead they involve an Experiencer argument which is not a volitional participant of the event. The non-agentivity is illustrated by the Russian example below, which does not allow control into purpose clauses and agentive modification:

(18) Mne xorosho rabotaet-sja (*chtoby mnogo zarabotat’) / (*special’no).
 I.DAT well work.3SG.PRES-SJA (to earn money) / (on+purpose)
 ‘Working goes well for me / feels well to me (*in order to earn money) / (*on purpose).’

Following Pylkkänen’s (2002) typology of causatives and adopting the same theoretical framework, Markman (2003: 427-428) argues that causative constructions universally involve a causative head (Caus), which introduces a causing event without introducing a θ -role and also licenses the accusative case. In Russian, like in Finnish, Caus and Voice can be realised separately as two different heads, which results in a causative without a causer with a structure shown in (19).



Markman suggests that the Experiencer NP is embedded under a null preposition TO (see (20)), from which it receives the θ -role. Therefore, the NP is not an argument of Caus, but of the preposition, and is a recipient of a causing event.



Like L&RH (1995), Markman distinguishes between internal and external causation. According to speaker's intuitions, the causing event in sentences like (18), i.e. whatever makes the individual work well, is internal to them. Internal causation is causation nonetheless, which is why no volitionality on the part of the individual can be expressed. Russian exhibits constructions involving internal and external causation, hence Markman (2003: 434-435) suggests that Russian has two different causative morphemes, both realised separately from Voice, one denoting internal and one external causation. She also provisionally assumes that the reflexive *-sja* is a spell out of the causative morpheme that denotes internal causation, and that it absorbs the accusative case.

Like Pylkkänen (1999, 2002, 2008) and Markman (2003), Nelson (2000: 174-175) suggests that causatives in Finnish contain a causing event in place of a causer. Unlike Pylkkänen and Markman, she does not assume a special head that licenses this event, but proposes that the causing event is generated in the specifier of vP, typically associated with causation and agency.

According to Nelson's discussion of causative affixation in Finnish, carried out in light of theories of argument linking, Finnish exhibits two types of psych causatives, one derived from psych inchoative bases, with a Theme in subject position (*pelästyttää* 'to make frightened'), and one derived from psych stative bases, with an Experiencer in subject position (*pelottaa* 'to frighten') (Nelson 2000: 152-153). In addition, Finnish has the Experiencer causative construction, identical to Pylkkänen's desiderative causatives and semantically equivalent to Slovene internal causatives, shown in (21b) (Nelson 2000: 171):

- (21) a. Minä laula-n.
 I.NOM sing-1SG
 'I sing.'

- b. Minu-a laula-tta-a.
 I-PART sing-CAUSE-3SG
 ‘I feel like singing.’

On Nelson’s view (2000: 171-172), sentence (21b) is related to Finnish psych causative verbs derived from psych stative bases in that it has a causative affix *-tta*, allows an Experiencer in partitive case (which is clearly an argument of the verb), denotes internally caused mental states or emotions, and is stative, i.e. has unbounded interpretation. However, unlike other psych causatives, it is derived from non-psych unergatives and transitives.

Although Finnish Experiencer causatives differ morphosyntactically from their Slovene equivalents, Nelson’s analysis is relevant to the present study in terms of the effect the causative morphology has on the arguments of predicates like *laula* ‘sing’ (Nelson 2000: 171-174): the input external argument is internalised and resurfaces as a partitive object, regardless of the argument structure of the input. So a sentence like (21b) may be analysed as a genuinely subjectless sentence, since no agent/causer is specified and the mental state is internally caused. In other words, some inherent property causes the Experiencer argument to undergo that mental state. We can say that it appears to be simultaneously the causer and the experiencer of the mental state, in the sense that “only the individual who contains the natural force that causes an emotion can experience that occurrence of that emotion”, as Pesetsky (1995: 111) also observes for psychological verbs such as French *s’étonner* ‘be amazed’. In addition, the direct object of a non-psych transitive input verb (e.g. *kirjoittaa* ‘write’) is suppressed in the Experiencer causative (internal causative) predicate (e.g. *kirjoituttaa* ‘feel like writing’), which appears to have only one argument (Nelson 2000: 171-173):

- (22) a. Hän kirjoitt-i kirjee-n.
 s/he.NOM write-PAST.3SG letter-ACC
 ‘S/he wrote a letter.’
- b. Hän-tä kirjoitu-tt-i.
 s/he-PART write-CAUSE-PAST.3SG
 ‘S/he felt like writing.’

The above shows that causative affixation in Finnish derives distinct classes of verb from different classes of base verb and that the argument linking in these predicates is predictable from the effect of causative morphology on the argument structure of different classes of base verb (Nelson 2000: 149).

2.2 Non-causative analysis

The analyses of internal causatives discussed in this subsection do not assume any causative interpretation in the semantics or any causative element in the syntax.

According to Rivero & Milojević Sheppard (2003) (henceforth R&MS), internal causatives (dative existential disclosure constructions in their terms) are derived by adding a nonselected dative either to a personal middle (passive or middle in their

terms), resulting into a sentence like (23), or an impersonal middle (construction with a nominative indefinite in their terms), deriving (24).⁸

(23) Pila se mi je voda.
 drink.PCP.SG.FEM SE I.DAT AUX.3SG water.FEM.NOM
 ‘I felt like drinking water.’

(24) Pilo se mi je vodo.
 drink.PCP.SG.NEUTER SE I.DAT AUX.3SG water.FEM.ACC
 ‘I felt like drinking water.’

R&MS’s analysis, which follows the Minimalist Program of generative syntax and Discourse Representation Theory of formal semantics, assumes that the morpheme *se* in internal causatives has the same role as *se* in their corresponding syntactic core. Thus internal causatives with nominative DPs like (23) contain “passive *se*” or “middle *se*”, as R&MS refer to *se* in personal middles. Internal causatives with DPs in objective case like (24), however, have “nominative indefinite subject *se*”, as R&MS refer to *se* in impersonal middles. The above examples show that internal arguments in Slovene internal causatives can either move to subject position or remain in object position, indicating that the formation of these constructions in Slovene does not involve detransitivisation of the verb (see also section 2.3.4).⁹

The Experiencer dative DP is treated by R&MS (2003) as an adjunct, external to the clause and functioning as a semantic subject, which takes the remainder of the sentence as its complement. The dative is interpreted by a strategy called dative existential disclosure, which eliminates the quantifier in the indefinite *se* or the implicit argument and binds them to the dative, from which they inherit semantic content. R&MS propose that Polish and Slovene dative existential disclosure constructions differ in meaning: while the former can express eventualities, like (25) below, the latter denote only dispositions, i.e. have a modal meaning, and never denote eventualities (as in (23) and (24)).

⁸ In this paper the term “middles” refers to a class of sentences which have an active verb form and a reduced (demoted) human argument. Slovene middles can be personal with a nominative, like (i), or impersonal – formed either from intransitives, like (ii), or transitives with overt objects, like (iib). For a more detailed discussion of Slovene middles see Grahek (2004, 2006, 2008).

(i) Bogovi se častijo. (personal middle)
 gods.NOM SE worship.3PL.PRES
 ‘Gods are worshiped.’

(ii) a. Samo enkrat se živi. (impersonal middle)
 only once SE live.3SG.PRES
 ‘You only live once.’

b. Bogove se časti. (impersonal middle)
 gods.ACC SE worship.3SG.PRES
 ‘Gods are worshiped.’

⁹ The nominative DP *voda* ‘water’ in (23) is the syntactic subject although it is in the post-verbal position. According to Chomsky (1981: 240), syntactic subjects in pro-drop languages can freely move from the pre-verbal to post-verbal position because they get case *in situ*.

- (25) Tę książkę czytało mi się z przyjemnością. (Polish)
 this book.ACC read.PCP.SG.NEUTER I.DAT SIĘ with pleasure
 ‘I read this book with pleasure.’

According to R&MS, this semantic difference is also reflected in the structure of the phrase containing the dative as its specifier: in Polish it is a topic phrase with a null head, while in Slovene it is a *modal* phrase with a null head.

Rivero (2003, 2004) essentially adopts R&M’s (2003) modal analysis of internal causatives (termed involuntary state constructions). On this view, the dative, which is not part of the argument structure of the verb, discloses and binds a formally present argument (overt or implicit) in the syntactic core by a formal semantic procedure called dative disclosure. The phrase which contains the dative in its specifier position, however, is referred to by Rivero as applicative phrase, with an empty modal head in Slovene.

According to the analysis proposed in Marušič & Žaucer (2006) (henceforth M&Ž), internal causatives (the intensional FEEL-LIKE construction in their terms) are syntactically biclausal sentences, with the overt verb in the lower predicate and the null FEEL-LIKE verb in the upper predicate. On their analysis, following Minimalism, the lower verb also contains aspect, while the upper null clause contains the Experiencer dative subject, tense and agreement morphology as well as the non-active *se*. Essentially, M&Ž argue that a sentence like (26) is structurally parallel to its closest paraphrase with an overt ‘feel-like’ verb (e.g. *luštati* ‘desire’) illustrated in (27) (2006: 1095). The fundamental difference between (26) and (27) is only in the overtness/covertness of the matrix verb. According to M&Ž, the position filled by the overt *luštati* ‘desire’ in (27) is filled by a null verb FEEL-LIKE in (26).

- (26) Gabru se pleše.
 Gaber.DAT SE dance.3SG.PRES
 ‘Gaber feels like dancing.’

- (27) Gabru se lušta plesati.
 Gaber.DAT SE desire.3SG.PRES dance.INFIN
 ‘Gaber feels like dancing.’

According to M&Ž (2006: 1141), only biclausal analysis can explain the opaque/intensional context created by sentences like (26), in which the null FEEL-LIKE is interpreted as expressing “disposition” or “indefinite yearning”, or in other words, “a wish which is not fully explicable, which does not have a rationally dissectable motivation, a wish for something which we think we might enjoy” (2006: 1144). Monoclausal structures, on their view, can only create transparent/extensional contexts (like for instance (2), expressing an involuntary event).¹⁰

The dative is treated by M&Ž (2006) as the Experiencer quirky subject of the upper clause, with inherent dative case that comes with the Experiencer θ -role

¹⁰ M&Ž use the terms “intensional” and “extensional” as they are used in logic, philosophy and other fields. In linguistics, a grammatical construction is *intensional* if the extension of the whole is a function of the intensions of one or more parts and the extension of the remaining parts, while a construction is *extensional* if the extension of the whole is a function of the extension of the parts (2006: 1140).

assigned by the non-active vQ . Thus the dative is a specifier in vQP , defined as a type of applicative phrase, rather than a modal phrase as in R&MS (2003).

Se in internal causatives is treated by M&Ž (2006) as an instantiation of non-active morphology, hosted by the head of vQP , i.e. non-active vP in the upper clause. It is not a syntactic argument, according to M&Ž, but rather an argument manipulating morpheme, reducing the external θ -role. However, in the so-called passive variant with a nominative DP like (23) above, *se* stands for both non-active morphology of the upper clause and “passive” morphology of the lower clause (termed middle *se* in the present paper, cf. section 4).

Finally, Moore & Perlmutter (2000) (henceforth M&P) discuss the Russian equivalent of internal causatives, referred to as productive I(nversion)-constructions. They occur with unergatives, contain the morpheme *-sja* and require negation or some modifying adverbial (2000: 378):

- (28) Borisu ne rabotaet-sja u sebja doma.
 Boris.DAT NEG work.3SG.PRES-SJA at self at+home
 ‘Boris can’t seem to work at his own place (at home).’

The action described by the predicate in (28) is beyond the control of the notional subject (*Boris*), which, according to M&P (2000: 373, 378), is not the surface subject but an I(nversion)-nominal. Although in Relational Grammar and under the Inversion Analysis this term refers to the nominal that demotes from subject to indirect object, M&P’s approach to these sentences aims to be analysis neutral. Their main point is that only an approach which assumes that these nominals are ‘initial subjects’ can best explain the syntactic properties of dative nominals in sentences like (28) (2000: 404). The reason M&P treat such nominals as surface indirect objects is the fact that they behave like subjects in two respects only: they can antecede reflexives *sebja* ‘self’ and *svoj* ‘self’s’ as in (28) and they are possible controllers into gerundial clauses, although there is a great deal of speaker variation with respect to this latter subjecthood test (M&P 2000: 380). In all other respects they do not behave like surface subjects (e.g. they are not in the nominative case, do not determine subject-predicate agreement, cannot raise and cannot be controlled).¹¹

In line with this non-subject analysis, M&P (2000: 402) propose that internal causatives (i.e. productive I-constructions in their terms) are impersonal with (silent) pleonastic subjects.

2.3 Evidence for causative analysis of Slovene internal causatives

In this section I will discuss Slovene data which provide evidence that internal causatives are monoclausal structures with a causativised meaning. I will also show that their Experiencer dative DP is an indirect object rather than a subject and that *se* is not an argument of a verb but a role-reducing morpheme.

¹¹ Moore & Perlmutter (2000) distinguish between dative nominals which are surface indirect objects (i.e. I-nominals) and dative nominals which are true subjects, i.e. underlying and surface subjects. According to Moore & Perlmutter, true dative subjects occur in Russian infinitival clauses like (i) (2000: 377).

- (i) Borisu ne istratit’ tak mnogo deneg na sebja.
 Boris.DAT NEG spend.INFIN so much money on self
 ‘It’s not (in the cards) for Boris to spend so much money on himself.’

2.3.1 Verbs describing internally caused events

The first argument for causative analysis of Slovene internal causatives is the fact that they always express events which are internally caused. For instance, (29) denotes a physical reaction brought about by some internal cause which is beyond Peter's control. Similarly, (23) and (24) above denote a desire to drink which is caused by some internal property of the argument, rather than conscious volition.

- (29) Petru se je rigalo.
Peter.DAT SE AUX.3SG belch.PCP.SG.NEUTER
'Peter belched (involuntarily).'

More support for causative analysis for Slovene internal causatives is the fact that they allow the adverbial phrases *samo od sebe* 'all by itself' and *kar samo* 'by itself', as shown in (10-11), repeated here as (30-31). These phrases, like (*kar*) *sam/a/o od sebe* 'all by itself' in anticausatives, not only indicate agentlessness but also reflect an unspecified cause.

- (30) Samo od sebe se mi je začelo pisati.
all by itself SE I.DAT AUX.3SG start.PCP.SG.NEUTER write.INFIN
'I started to write involuntarily.' (internal causative)

- (31) Kar samo se ji je smejalo.
by itself SE she.DAT AUX.3SG laugh.PCP.SG.NEUTER
'She laughed involuntarily.' (internal causative)

Unlike in anticausatives, however, the unspecified cause is interpreted as an internal cause, in other words, as some inherent property which causes the Experiencer argument to undergo a mental state or emotion.

Slovene internal causatives therefore describe a causing event, but unlike Pylkkänen (1999, 2002, 2008) and Markman (2003), I propose they have no causative head in the syntax because causative meaning is already present in their lexical semantics. For instance, Slovene construction below does not mean 'Something causes Gaber to feel like dancing' although it is semantically causative. Unlike Finnish (12) (Pylkkänen 1999: 13), (32) does simply mean 'Gaber feels like dancing'. This suggests that the cause in Slovene internal causatives is not represented syntactically.

- (32) Gabru se pleše.
Gaber.DAT SE dance.3SG.PRES
'Gaber feels like dancing.'

Several other pieces of evidence support the fact that Slovene internal causatives, unlike those in Finnish, do not have a causative head that introduces a cause in the syntax. First, the cause cannot be questioned, as shown in (33), and second, it cannot be picked up by a sluicing construction like (34).

- (33) a. Gabru se pleše.
Gaber.DAT SE dance.3SG.PRES
'Gaber feels like dancing.'

b. *Kaj?

what.NOM

Intended: ‘What (causes Gaber to feel like dancing)?’

- (34) *Gabru se pleše, pa ne ve kaj.
Gaber.DAT SE dance.3SG.PRES but NEG know.3SG.PRES what.NOM
Intended: ‘Gaber feels like dancing but he doesn’t know what (causes him to feel like dancing).’

Moreover, the cause in (32) cannot be interpreted. Unlike in Finnish (12), it cannot be described as ‘his happiness’ or any other internal state of the Experiencer. Rather, there is an unidentified and unspecified cause present in the semantics that is responsible for bringing about the mental state described by the predicate, internal to the Experiencer argument.

The above evidence thus suggests that the cause in Slovene internal causatives is not syntactically realised although it is semantically present. Since it can be reflected by the phrase *samo od sebe* and *kar samo* (meaning ‘(all) by itself’), it seems more likely that the agent/cause has been demoted. In other words, both agentive sentences and internal causatives derived from them have a cause in their lexical semantics; the difference is that in internal causatives the cause is unspecified rather than interpreted as the will of the agent.

Two pieces of evidence support the claim that Slovene internal causatives are indeed lexically causative verbs. First, as we have seen above, Slovene verbs distinguish between external and internal causation. Verbs like *razbiti* ‘break’ in (9) have a *se*-variant which can only express a spontaneous event that is externally caused. Internal causatives like *rigati* ‘belch’ in (29), on the other hand, have a *se*-variant which can only express a spontaneous event that is internally caused.

The second piece of evidence is the fact that Slovene internal causatives and anticausatives select different external arguments whose semantic interpretation differs in the same manner as described by L&RH (1995: 103) for externally and internally caused verbs across languages. Verbs deriving anticausatives, such as *razbiti* ‘break’, *odpreti* ‘open’ and *potopiti* ‘sink’, allow their external arguments to be agents, instruments or natural forces and causes. On the other hand, verbs deriving internal causatives, such as *rigati* ‘belch’, *spati* ‘sleep’ and *piti* ‘drink’, only allow agents as their external arguments, the reason being that only agents, unlike instruments and natural forces or causes, are animate participants that can undergo an emotional or physical reaction when they resurface as experiencers in internal causatives.

Slovene data also provide evidence against the (non-causative) modal analysis by R&MS (2003) and biclausal/intensional analysis by M&Ž (2006). As already pointed out in section 1, their analyses can account for sentences expressing a desire or disposition like (23), repeated as (35), but not for sentences expressing involuntary events like (29), repeated as (36), since these do not denote a desire or disposition (i.e. (36) cannot be interpreted to mean ‘Peter felt like belching’).

- (35) Pila se mi je voda.
drink.PCP.SG.FEM SE I.DAT AUX.3SG water.FEM.NOM
‘I felt like drinking water.’

- (36) Petru se je rigalo.
 Peter.DAT SE AUX.3SG belch.PCP.SG.NEUTER
 ‘Peter belched (involuntarily).’

Like M&Ž (2006) we can assume that sentences like (36) represent distinct constructions with different syntactic and semantic structure, in which case sentences like (7-8), repeated here as (37-38), prove problematic because they can be interpreted as expressing either an involuntary event or disposition, and their interpretation is determined solely by the context. R&MS (2003) and M&Ž (2006) do not discuss the syntactic structure of sentences with double interpretation like (37) and (38) – they would probably need to assume two different syntactic analyses, one for disposition and one for involuntary event. By contrast, the causative analysis I propose in this paper captures both interpretations by assuming a single syntactic structure. On my analysis, the sentences below are interpreted to mean that some property internal to Janez causes him to (desire to) sleep in (37), and that some property internal to a male individual caused him to (desire to) fall asleep in (38).

- (37) Janezu se spi.
 Janez.DAT SE sleep.3SG.PRES
 ‘Janez is sleepy. / Janez feels like sleeping.’

(R&MS 2003: 137)

- (38) Za-spalo se mu je.
 PERF-sleep.PCP.SG.NEUTER SE he.DAT AUX.3SG
 ‘He felt like falling asleep. / He dropped off.’

(M&Ž 2006: 1130)

R&MS (2003: 137) observe that when sentence (37) has an overt modal *hoteti* ‘want’ as in (39), it is judged marginal by some Slovene speakers, which R&MS attribute to the fact that the modal must seem redundant if the sentence already contains an empty modal head.

- (39) ?Janezu se hoče spati.
 Janez.DAT SE want.3SG.PRES sleep.INFIN
 ‘Janez is sleepy. / Janez feels like sleeping.’

I argue, however, that (39) can be paraphrased by *hoteti* ‘want’ only when it means ‘Janez feels like sleeping’, but not when it is interpreted as ‘Janez is sleepy’ or ‘Janez is falling asleep (involuntarily)’, because the latter are involuntary events, which are incompatible with the notion of disposition. Thus it is the fact that the sentence has two interpretations, only one of which involves disposition, that is responsible for the varying judgements from native speakers, not the presence of a modal head. R&MS (2003) claim that Slovene internal causatives have a modal meaning built into their syntactic structure in the form of a modal phrase because, on their view, they always express modality (i.e. disposition) and never express eventualities. Slovene evidence, however, does not support this claim because internal causatives express not only dispositions, as in (35), but also eventualities, which involve no modality, as shown in (30), (31) and (38).

M&Ž (2006: 1130) suggest that the best translation for sentence (38) is ‘He felt like falling asleep’, implying that the subject of the sentence desired to go to sleep, i.e.

disposition. However, the results of the judgement elicitation task carried out on 166 native speakers¹² show that the most natural interpretation of (38) is *Zaspal je* ‘He dropped off’ (53.43% of speakers), implying no disposition on the part of the Experiencer and no feel-like interpretation (the latter received only 8.86%). Therefore sentences like (38), which M&Ž (2006) term FEEL-LIKE constructions, but are more naturally used to express involuntary events, demonstrate that it is not possible to make a clear distinction between sentences expressing disposition and those expressing involuntary events.

Examples (37) and (38) thus show that a successful analysis of this construction should be able to account for sentences expressing disposition as well as those expressing involuntary events, since the semantic difference does not depend on any particular structure. Modal and biclausal/intensional analyses cannot account for both, while causative analysis can, because disposition as well as involuntary events can both be internally caused.

2.3.2 Monoclausal structures

The results of the judgement elicitation task described in the preceding subsection also provide evidence against M&Ž’s biclausal analysis. M&Ž (2006) argue that the following syntactic properties indicate that Slovene internal causatives with one overt verb contain two events (one associated with the upper/null FEEL-LIKE verb and one with the lower/overt verb): they allow two contradictory depictives, temporal adverbials or modifiers, allow modals to scope higher than the upper predicate, allow perfective verbs to follow aspectual verbs, and allow the violation of strict linear order of adverbials (these properties are illustrated in examples (40-45) below, which are (based on) M&Ž’s own examples (2006: 1117-1127)).

However, Slovene speakers report that internal causatives do not allow two contradictory depictives, such as *trezen* ‘sober’ and *pijan* ‘drunk’ in (40), each associated with one predicate (18.54% of speakers). Nor can internal causatives be interpreted with the root modal scoping higher than the null FEEL-LIKE predicate, as indicated in the second translation in (41) (1.16%). If speakers find this sentence grammatical at all, they interpret it as ‘Jan is allowed to play football’ (41.33%) and reject the feel-like interpretation (accepted by 2.31% of speakers).

- (40) *Jušu se treznemu ni kuhalo pijan.
 Juš SE sober.DAT AUX.NEG.3SG cook.PCP.SG.NEUTER drunk
 Intended: ‘Juš – all sober – didn’t feel like cooking drunk.’

¹² In summer 2005 I conducted a judgement elicitation task in order to elicit judgements on some sentences with *se* considered in the generative literature. It included 166 Slovene speakers of all major Slovene dialects, aged between 15 and 72. The questionnaire consisted of 22 sentences (8 internal causatives, 3 middles and 11 distractors), each with a list of interpretations. The speakers were asked to choose the interpretation that best described the sentence. They were allowed to choose more than one interpretation and asked to indicate which one they preferred. The aim of the questionnaire was to find out, first, whether Slovene middles allow anaphors, and second, whether Slovene internal causatives are biclausal sentences and whether they can be formed from modal verbs, transitives with overt objects and perfective verbs. The points were awarded as follows: each first choice was awarded 1 point, and each second or any subsequent choice was awarded 0.5 point. If a speaker did not indicate which of the two (or three) choices they preferred, each choice was awarded 1 point. The total points awarded to each interpretation of a sentence were then calculated into a percentage of the accumulative total of answers for each sentence. The survey and its results are presented in Grahek (2006, Appendix).

- (41) ?Janu se sme igrati fuzbal.
 Jan.DAT SE may.3SG.PRES play.INFIN football.ACC
 Intended: ‘Jan feels like being allowed to play football.’ /
 Intended: ‘Jan may feel like playing football.’ /
 ‘Jan is allowed to play football.’

Moreover, there is no unambiguous proof that internal causatives with one overt verb allow two non-agreeing temporal adverbials, like *včeraj* ‘yesterday’ and *jutri* ‘tomorrow’ in (42) (46,99%) or two opposing modifiers, like *zelo* ‘very’ and *malo* ‘little’ in (43) – each modifying one event (43.22%) – or that aspectual verbs (*nehati* ‘stop’) can be followed by perfective verbs (*začeti* ‘begin’) as in (44) (46.29%). The judgements are variable and speakers seem to only guess at the meaning of these sentences.

- (42) ?Včeraj se mi ni šlo jutri domov.
 yesterday SE I.DAT AUX.NEG.3SG go.PCP.SG.NEUTER tomorrow home
 ‘Yesterday, I didn’t feel like going home tomorrow.’

- (43) ?Zelo se mi je malo plesalo.
 very SE I.DAT AUX.3SG little dance.PCP.SG.NEUTER
 ‘I very much felt like dancing a little.’

- (44) ?Davidu se je nehalo začeti laufati.
 David.DAT SE AUX.3SG stop.PCP.SG.NEUTER begin.INFIN run.INFIN
 ‘David stopped feeling like beginning to run.’

Only sentences like (45) in which the strict linear order of adverbials in the specifiers of functional phrases (*spet* ‘again’, *nepretrgoma* ‘non-stop’) is violated seem to be slightly more acceptable by native speakers (66.67%).

- (45) Borisu se nepretrgoma spet kadi havanke.
 Boris.DAT SE nonstop again smoke.3SG.PRES Cuban+cigars.ACC
 ‘Boris non-stop feels like smoking Cuban cigars again.’

Since there is no conclusive evidence for biclausality of Slovene internal causatives with one overt verb, as proposed by M&Ž (2006), I conclude that their syntactic structure is monoclausal, as commonly argued in the literature (Markman 2003, R&MS 2003). We have also seen above that there is no strong evidence for either modal or “intensional” analysis of Slovene internal causatives, therefore I propose that they do not include any null verbs, either modal or FEEL-LIKE. Instead, the verb that undergoes argument structure modification (i.e. internalisation of the external argument) is either the only overt verb, like *spati* ‘sleep’ in (37), repeated in (46a), or the matrix verb in sentences with two overt verbs, like *hoteti* ‘want’ in (39), repeated in (46b). All verbs that, like *hoteti* ‘want’, appear in the matrix clause in Slovene internal causatives (*dati* ‘give’, *ljubiti* ‘love’, *luštati* ‘desire’ and *marati* ‘like’) are interpreted as meaning *feel like* and denoting internally caused mental states. Unlike M&Ž (2006), therefore, I do not assume that internal causatives with one overt verb like (46a) are structurally parallel to their paraphrases with two overt verbs like (46b), but rather to the matrix clause of the two-overt-verb sentences, as indicated by brackets below.

- (46) a. [Janezu se spi].
 Janez.DAT SE sleep.3SG.PRES
- b. [Janezu se hoče] spati.
 Janez.DAT SE want.3SG.PRES sleep.INFIN
 ‘Janez is sleepy. / Janez feels like sleeping.’

2.3.3 The status of the Experiencer dative DP

Let us now consider the status of the dative in Slovene internal causatives. The review in sections 2.1 and 2.2 has shown that the Experiencer DP in equivalent constructions across languages has been treated as a syntactic (quirky) subject in an applicative phrase (M&Ž 2006), as a non-argument (adjunct) semantic subject in a modal (R&MS 2003) or applicative phrase (Rivero 2003, 2004), as an internal object argument (Pylkkanen 1999), as an argument of a null preposition TO in a causative phrase (Markman 2003), as an internalised external argument (Nelson 2000) and as a derived indirect object (demoted external argument) (M&P 2000).

If we assume causative analysis for Slovene internal causatives, as proposed in this paper, then their Experiencer DP must clearly be an argument of the verb, rather than an adjunct, as suggested by R&MS (2003). All internally caused verbs, including verbs like *blush* and *glitter*, require an argument which undergoes the state or process described by the verb and which is, as stated by L&RH (1995), at the same time responsible for bringing about this eventuality since the cause is inherent to the argument. In Slovene internal causative constructions it is the Experiencer dative DP that represents a participant undergoing an internally caused mental or physical state or process, so it must be an argument of the verb.

However, dative DPs in Slovene internal causatives do not seem to display properties and patterns that are typical of syntactic subjects. They behave syntactically like canonical subjects only with respect to raising, as shown in (47), where the dative must have raised from the lower clause (formally identical to sentence (48) without raising), because sentences like (49) are not allowed. (50) shows that *začeti* ‘begin’ as a main verb can only occur with the subject DP in the nominative.

- (47) Petru se je začelo kolcati.
 Peter.DAT SE AUX.3SG begin.PCP.SG.NEUTER hiccup.INFIN
 ‘Peter began to hiccup (involuntarily).’
- (48) Petru se je kolcalo.
 Peter.DAT SE AUX.3SG hiccup.PCP.SG.NEUTER
 ‘Peter hiccupped (involuntarily).’
- (49) *Petru se je začelo prepozno.
 Peter.DAT SE AUX.3SG begin.PCP.SG.NEUTER too+late
 Intended: ‘Peter began (involuntarily) too late.’
- (50) Peter je začel prepozno.
 Peter.NOM AUX.3SG begin.PCP.SG.MASC too+late
 ‘Peter began too late.’

With respect to other subjecthood tests the evidence is less conclusive. Experiencer datives in Slovene internal causatives definitely cannot participate in coordination reduction, as shown in (51) where the dative *mu* ‘he.DAT’ in the second clause is obligatory and cannot be omitted.

- (51) Peter ima vročino in blede se
 Peter.NOM have.3SG.PRES temperature.ACC and be+delirious.3SG.PRES SE
 *(mu).
 (he.DAT)
 ‘Peter has a temperature and he’s delirious.’

Datives in Slovene internal causatives may seem to be able to determine agreement on adjectives, as in (52). However, *samemu* ‘alone’ in (52) is a small clause, and as such an example of only secondary agreement which, according to Sigurðsson (2002: 705-706), crosses predicate boundaries and has no bearing on the subject status of the dative that triggers it. So (52) provides no evidence for the subject status of the dative *Petru*.

- (52) Petru se samemu ni šlo
 Peter.DAT.MASC SE alone.DAT.MASC AUX.NEG.3SG go.PCP.SG.NEUTER
 domov.
 home
 ‘Peter didn’t feel like going home alone.’

Furthermore, control into adjunct clauses, as in (53), results into ungrammatical or at least marginal sentences.

- (53) ??Sedeč na vrtu, se mu je jedlo
 sitting on garden SE he.DAT AUX.3SG eat.PCP.SG.NEUTER
 jagode.
 strawberries.ACC
 ‘Sitting in the garden, he felt like eating strawberries.’

Finally, no empirical evidence can be found to show whether or not datives in Slovene internal causatives can bind reflexives, such as *sebe* ‘self’ and *svoj* ‘self’s’. Only internal causatives with non-reflexive possessives, like *moja* ‘my’ in (54) are attested, while their variants with object DPs containing reflexive possessives (like in (55)) are not.¹³

- (54) Sanjala se mi je moja ženska.
 dream.PCP.SG.FEM SE I.DAT AUX.3SG my woman.NOM.FEM
 ‘I dreamed about my woman.’

¹³ Not all dative DPs in Slovene behave like objects. Like Russian (see fn. 8), Slovene distinguishes between datives which are only notional (underlying) subjects and datives which are also the surface subjects since they pass more subjecthood tests. In (i), for instance, the dative can control the possessive anaphor.

(i) Težko mi je govoriti o svojih problemih.
 difficult I.DAT be.3SG.PRES talk.INFIN about self’s problems
 ‘I find it difficult to talk about my problems.’

- (55) *Sanjalo se mi je svojo žensko.
dream.PCP.SG.NEUTER SE I.DAT AUX.3SG self's woman.ACC.FEM

The above subjecthood tests indicate that the dative argument in Slovene internal causatives does not resurface as a syntactic subject. It appears to be an indirect object, like the dative in Russian internal causatives discussed by M&P (2000). Thus Slovene internal causatives with intransitives and those with accusative objects appear to be subjectless sentences, as also argued by Nelson (2000) for the equivalent construction in Finnish. (More about the internalisation of the external argument in Slovene internal causatives in section 3.2.)

2.3.4 The status of *se*

Finally, let us turn to consider the morpheme *se* in Slovene internal causatives. In the review in sections 2.1 and 2.2 we saw three different treatments of the reflexive in comparable sentences: as a spell out of the causative morpheme that denotes internal causation and absorbs the accusative case (Markman 2003), as *se* that also appears in middles (R&MS 2003, Rivero 2003, 2004) and as a (non-active) argument manipulating morpheme, reducing the external θ -role (M&Ž 2006). Below I discuss Slovene evidence, which suggests *se* is a non-referential role-reducing operator.

First, Slovene data show that the accusative case is not absorbed in Slovene internal causatives because transitive verbs can retain their structural objects. We have seen in (23) and (24), repeated here as (56) and (57), that Slovene internal causatives with nominative DPs have variant forms with accusative DPs. Sentences like (57) are widely accepted by native speakers – in the judgement elicitation task an equivalent sentence received 92.90%. So Markman's idea of the reflexive absorbing the accusative case cannot be adopted for Slovene.

- (56) Pila se mi je voda.
drink.PCP.SG.FEM SE I.DAT AUX.3SG water.NOM
'I felt like drinking water.'

- (57) Pilo se mi je vodo.
drink.PCP.SG.NEUTER SE I.DAT AUX.3SG water.ACC
'I felt like drinking water.'

In addition, we need not see *se* as an instantiation of the causative morpheme, as Markman (2003) suggests for Russian *-sja*, if we adopt L&RH's (1995) definition of internal causation as an inherent semantic property of a verb's argument (discussed in 2.1 and 2.3), which is then interpreted as an experiencer and causer simultaneously (Nelson 2000). In this case causation is inherent in the verb's semantics, so no special causative morpheme is required in the syntax.

Furthermore, R&MS's (2003) proposal that internal causatives share the same use of *se* and the same core syntactic structure with middles (with an added dative adjunct) is not supported by Slovene data. If this was the case, we would expect that every Slovene middle should be able to form a basis for an internal causative. Unlike middles, however, Slovene internal causatives cannot be derived from unaccusative verbs, as shown below. This suggests that internal causatives are a distinct construction, subject to different constraints, and that their *se* has a different function from that in middles.

- (58) Tako hitro se ne umre. (middle)
 so quickly SE NEG die.3SG.PRES
 ‘One does not die so quickly.’
- (59) *Petru se ne umre tako hitro. (internal causative)
 Peter.DAT SE NEG die.3SG.PRES so quickly
 Intended: ‘Peter does’t feel like dying so quickly.’

Slovene data instead support M&Ž’s (2006) proposition that *se* in Slovene internal causatives is not a syntactic argument, but an argument manipulating morpheme. Like M&Ž (2006), I argue that *se* reduces the external θ -role of a verb. On my view, *se* in internal causatives is not a syntactic argument, but rather a role-reducing operator which signals the reduction of an argument. One piece of evidence that *se* in internal causatives cannot represent the external argument of a verb is the fact that they are agentless clauses: they allow phrases like *samo od sebe* ‘all by itself’, which indicate agentlessness, and do not allow control into purpose clauses and agentive modification, as shown in (60).

- (60) Petru se je rigalo, (*da bi me
 Peter.DAT SE AUX.3SG belch.PCP.SG.NEUTER (that would I.ACC
 nerviral) / (*namenoma).
 annoy.PCP.SG.MASC) / (on-purpose)
 ‘Peter belched involuntarily (*in order to annoy me) / (*on purpose).’

Moreover, *se* in internal causatives cannot be a syntactic argument because it is not obligatory – in the following section we will see that some derived internally caused verbs do not require *se*. In sum, *se* in internal causatives is a non-referential role-reducing operator, functioning not as a syntactic argument but rather as a functional element marking morphologically the modification of the argument structure of a verb.

3. Unified approach to Slovene internal causatives and anticausatives

In this section I demonstrate that the operation which derives internal causatives and anticausatives in Slovene is essentially the same operation. I argue that the morpheme *se* in internal causatives and anticausatives represents a single use with the same effect on the argument structure of base verbs, and that the differences in their surface structures are systematic and predictable from the properties of the two classes of bases from which they are derived.

3.1 Similarities between Slovene internal causatives and anticausatives

My motivation for treating internal causatives and anticausatives as a single group of derived causatives in Slovene is the fact that they share crucial morphological, semantic and syntactic properties, which suggests that the role of *se* during their derivation is the same, namely it reduces the external argument of a verb. As we have seen, both internal causatives and anticausatives are structures with a causativised meaning, yet they imply no volitional agent. The examples below show that both internally and externally caused verbs most often come in so-called causative pairs which consist of a base form without *se* and a derived form with *se*,

and that in each case it is the morphologically complex form with *se* that is non-agentive, i.e. lacks the external argument.

- (61) a. Peter je rigal.
Peter.NOM AUX.3SG belch.PCP.SG.MASC
'Peter belched.'
- b. Petru se je rigalo (samo od sebe).
Peter.DAT SE AUX.3SG belch.PCP.SG.NEUTER (all by itself)
'Peter belched (involuntarily) (all by itself).' (internal causative)
- (62) a. Peter je razbil vazo.
Peter.NOM AUX.3SG break.PCP.SG.MASC vase.FEM.ACC
'Peter broke the vase.'
- b. Vaza se je razbila (sama od sebe).
vase.FEM.NOM SE AUX.3SG break.PCP.SG.FEM (all by itself)
'The vase broke (all by itself).' (anticausative)

In spite of being non-agentive, the *se*-form of both internally and externally caused verbs expresses an event that could not occur without a cause, even if this cause is not specified. Internal causatives and anticausatives therefore express an event with an implied/understood cause that comes about spontaneously without a volitional agent, as indicated by the translation 'feel like' and 'involuntarily' for internal causatives, and 'all by itself' for anticausatives: *hoteti* 'want' – *hoteti se* 'feel like', *rigati* 'belch' – *rigati se* 'belch involuntarily', *razbiti* 'break' – *razbiti se* 'break all by itself'. Both internal causatives and anticausatives also allow phrases meaning 'all by itself' (*samo od sebe* or *kar samo* in internal causatives, and (*kar*) *sam/a/o od sebe* in anticausatives), which imply the absence of an agent and the presence of an (unspecified) cause.

The morpheme *se* therefore has the same effect in internal causatives and anticausatives: it reduces the external θ -role of a base verb. I also argue that in both cases the external role is reduced on the verb's grid, i.e. in the lexicon. There are several pieces of evidence that internal causatives in Slovene are lexically derived. The first piece of supporting evidence is the observation that the rule which derives internal causatives in Slovene is idiosyncratic and has numerous exceptions. Both Wehrli (1986) and Orešnik (1986/87) view idiosyncrasy and exceptions to a rule as diagnostics for an unproductive, i.e. lexical process. Slovene internal causatives derive only from verbs that are able to express spontaneous internally caused events after their external argument has been reduced:

- verbs describing mental and physical processes and states, such as *blesti* 'be delirious', *bruhati* 'vomit', *dremati* 'drowse', *lulati* 'wee', *kakati* 'poo', *kolcati* 'hiccup', *rigati* 'belch', *sanjati* 'dream', *spati* 'sleep', *zehati* 'yawn'
- other verbs describing events that can be conceptualised as internally caused, such as *iti* 'go', *jesti* 'eat', *jokati* 'cry', *pisati* 'write', *piti* 'drink', *plesati* 'dance', *slišati* 'hear', *smejati se* 'laugh'
- verbs that become interpreted as 'feel like': *dati* 'give', *hoteti* 'want', *ljubiti* 'love', *luštati* 'desire' and *marati* 'like'

Although the use of *se* and an Experiencer dative is the most common process of deriving internal causatives in Slovene, it is not the only possibility. As also illustrated in M&Ž (2006: 1151, fn. 43), internal causatives can make use of several alternative structures. Some of the verbs listed above, like *lulati* ‘wee’ and *kakati* ‘poo’, can occur in internal causatives with an accusative DP, no morpheme *se* and the verb *tiščati* ‘press’, as illustrated in (63). Other verbs occur in non-*se* internal causatives with accusative DPs that make use of verbs such as *siliti* ‘force’, *imeti* ‘have’, *popasti* ‘seize’, *držati* ‘hold’, *zgrabiti* ‘grip’ and *vleči* ‘drag’ followed by a prepositional phrase or a finite clause, as shown in (64) and (65). Still other internal causatives may display a dative DP, no morpheme *se* and verbs such as *iti* ‘go’, *priti* ‘come’ and *biti* ‘be’ followed by a prepositional object, such as *smeh* ‘laughter’ and *jok* ‘crying’ in (66). However, it is not possible to predict which sentence structure each individual verb will occur in.

- (63) Petra tišči lulat / kakat.
 Peter.ACC press.3SG.PRES wee.SUPINE / poo.SUPINE
 ‘Peter feels like having to wee / poo. / Peter needs a wee / poo.’
- (64) Petra sili na bruhanje / jok.
 Peter.ACC force.3SG.PRES on vomiting / crying
 ‘Peter feels like vomiting / crying.’
- (65) Ima me, da bi brcnil računalnik.
 have.3SG.PRES I.ACC that would kick.PCP.SG.MASC computer.ACC
 ‘I feel like kicking my computer.’
- (66) Petru gre na smeh / jok.
 Peter.DAT go.3SG.PRES on laughter / crying
 ‘Peter feels like laughing / crying. / Peter laughs / cries involuntarily.’

Another piece of evidence that internal causatives in Slovene are lexical is the fact that several internal causatives, especially those derived from *dati* ‘give’, *hoteti* ‘want’, *ljubiti* ‘love’, *luštati* ‘desire’ and *marati* ‘like’, are no longer associated with their non-*se* forms by a productive rule. For instance, the base verb *dati* meaning ‘give’ is semantically unrelated to the internal causative form *dati se* ‘feel like’, which is now an independent lexical item. This view is also supported by the fact that *dati se* ‘feel like’, *hoteti se* ‘feel like’, *ljubiti se* ‘feel like’ and several other internal causatives (e.g. *iti se* ‘feel like going’, *spati se* ‘feel like sleeping’) are listed in Slovene dictionaries as separate lexical entries, which suggests that speakers perceive them as independent lexical items (Bajec et al. 1994).

We can say therefore that the use of *se* and an Experiencer dative is not fully productive because it applies to only a subset of bases that derive internal causatives in Slovene. It appears that the non-agentive form of an internally caused causative pair is generated for each new lexical item and that this information is stored in the lexicon.

There are several arguments supporting the claim that Slovene anticausatives, like internal causatives, are also lexically derived and that their use of *se* is lexically determined. First, their derivation is idiosyncratic and allows exceptions. As pointed out for the first time in Grahek (2002), Slovene anticausatives can be derived by three different processes (with *se*, with the infinitive suffix *-e-* and with morphologically

identical forms), of which only the attachment of *se* is a productive process in modern Slovene, i.e. can be applied to all newly formed causative verbs, such as *internetizirati* ‘get online’ and *globalizirati* ‘globalise’ (Žele 2003).¹⁴ The three processes are illustrated below with the verbs *potopiti se* ‘sink’, *počrneti* ‘blacken’ and *počiti* ‘burst’. Examples (68) and (69) also demonstrate that anticausatives in *-eti* and homonymous forms cannot occur with *se*. As with internal causatives, the information on which process will derive an anticausative from a given transitive causative verb is stored in the lexicon and cannot be predicted.

- (67) Ladja se potopi.
 ship SE sink.3SG.PRES
 ‘The ship sinks.’
- (68) Kuhinja (*se) je počrnela.
 kitchen.FEM SE AUX.3SG blacken.PCP.SG.FEM
 ‘The kitchen blackened.’
- (69) Balon (*se) je počil.
 balloon.MASC SE AUX.3SG burst.PCP.SG.MASC
 ‘The balloon burst.’

However, not all transitive causative verbs can undergo anticausative formation. The constraint seems to be that anticausatives can only be derived from externally caused verbs which allow their causer argument to be left unspecified. So despite the fact that anticausatives are often derived from verbs ending in *-iti* and *-irati*, verbs such as *odkleniti* ‘unlock’ and *lektorirati* ‘proofread’ cannot derive anticausatives because they describe events that cannot occur spontaneously, and their agent/cause cannot be unspecified.

Further evidence that anticausative formation in Slovene is not a fully productive process is the fact that some anticausative verbs are no longer associated with their transitive counterparts by a productive rule – for instance, there is no productive rule that could derive the anticausative *potoniti* ‘sink.INTRANS’ from the transitive form *potopiti* ‘sink.TRANS’, which has another (regular) intransitive form with *se* (*potopiti se* ‘sink.INTRANS’).

Judging from the above, we can argue that the rule deriving Slovene anticausatives is not fully productive, as opposed to rules that apply in syntax, and that anticausatives must be generated by rule for each new lexical entry. Slovene

¹⁴ Rules deriving anticausatives seem to be idiosyncratic and language specific. For instance, Fagan (1992: 174-175) discusses Dutch anticausatives, which also have three possible processes of derivation: with *zich* ‘self’, with optional *zich* ‘self’ and with no morphological marking. In Dutch, however, the most productive process is the latter with homonymous forms – all recently formed anticausatives, such as *finlandiseren* ‘Finlandise’, may not appear with *zich* ‘self’.

- (i) Het gerucht verspreidde zich.
 ‘The rumour spread.’
- (ii) De suiker lost (zich) op.
 ‘The sugar dissolves.’
- (iii) De soep kookt.
 ‘The soup boils.’

dictionaries support this view since several anticausatives are listed as individual entries, e.g. *potopiti se* ‘sink.INTRANS’, *odtajati se* ‘defrost.INTRANS’ (Bajec et al. 1994).

One last piece of evidence for lexical derivation of Slovene anticausatives is the fact that they are syntactically intransitive because they have undergone object promotion in the lexicon. This can be demonstrated by the *-er* affix, which is not allowed by anticausatives, as observed by Keyser & Roeper (1984: 395-396) for English anticausatives (ergatives in their terms). In the examples below, the Slovene equivalent of the *-er* affix (in *pek* ‘baker’) can refer to the Agent subject *moški* ‘man’ of the transitive variant (70a), but cannot refer to the Theme subject *kruh* ‘bread’ of the intransitive variant (71a) because it contains a derived Theme subject linked with the object trace.

(70) a. Moški je pekel kruh.
 man.MASC AUX.3SG bake.PCP.SG.MASC bread.ACC
 ‘The man baked the bread.’

b. Pek je pekel kruh.
 baker.MASC AUX.3SG bake.PCP.SG.MASC bread.ACC
 ‘The baker baked the bread.’

(71) a. Kruh se je pekel.
 bread.MASC SE AUX.3SG bake.PCP.SG.MASC
 ‘The bread baked.’

b. *Pek se je pekel.
 baker.MASC SE AUX.3SG bake.PCP.SG.MASC

Slovene anticausatives like *peči se* ‘bake’ in (71a) therefore exhibit the properties of unaccusative verbs in terms of their argument structure: they syntactically project one argument, which is the direct internal argument of a verb.

Following from the above conclusions that both internal causatives and anticausatives denote spontaneous (non-agentive) causing events and are derived in the lexicon, I argue that the role of their *se* is exactly the same: it reduces the external argument of the verb in the lexicon.

3.2 Differences between Slovene internal causatives and anticausatives

Despite sharing the same type of *se*, the two classes of causative structures differ in that internal causatives express spontaneous internally caused events, while anticausatives express spontaneous externally caused events. Moreover, the reduced external argument in internal causatives is demoted (internalised) to the indirect object with the θ -role of an Experiencer, while in anticausatives it is deleted and cannot be overtly expressed, as shown in (72) below. We have also seen in (57) above that transitive internal causatives in Slovene can retain their structural objects, while anticausatives always involve detransitivisation of a verb and the consequent object promotion. These differences between the two types of causatives are given in Table 1.

Table 1. Comparison between internal causatives and anticausatives in Slovene.

	Reduced external argument	Unspecified cause	Object promotion
Internal causatives	Demoted to indirect object	Internal	Optional
Anticausatives	Deleted	External	Obligatory

Despite these differences I argue that Slovene internal causatives and anticausatives group together into a larger class of (derived) causatives, based on the fact that their *se* is the same type of role-reducing operator which reduces the external role in the lexicon during their derivation. I argue that the differences regarding the reduced argument, the interpretation of the cause and the transitivity properties are not evidence against the claim that internal causatives and anticausatives share the same type of *se*, because these differences are independent of *se*. Below I show that they are predictable from the lexical semantics of the different types of base verb.

The main syntactic difference between the two causatives, i.e. the presence of Experiencer datives in internal causatives, is completely independent from the role and properties of *se*, and follows solely from the semantics of causative verbs. Both internal causatives and anticausatives require the syntactic expression of the argument that undergoes or experiences the causing event, i.e. the external argument of the internally caused verbs and the direct internal argument of externally caused verbs. Therefore the syntactic difference is predictable for each class of input verbs.

To illustrate this let us first consider externally caused verbs, such as transitive verbs *potopiti* ‘sink’ and *razbiti* ‘break’. As we have seen above, their external argument, which could be an agent, an instrument or a natural force or cause, is deleted in the lexicon and is no longer available either in the syntax or semantics. Its presence can only be reflected by the phrase *sam od sebe* ‘all by itself’. The direct internal argument, which is the argument that undergoes the causing event and has to be syntactically overt, is externalised and moves to subject position because the derivation of anticausatives involves detransitivisation of the verb. The movement of the object takes place in the lexicon, which is why anticausatives emerge from the lexicon as intransitives. This is shown below.

- (72) Ladja se potopi *mornarje (*od sovražnika
 ship.FEM.NOM SE sink.3SG.PRES sailors.ACC (by enemy
 / *s strani sovražnika / sama od sebe).
 / on the+part+of enemy / all.FEM by itself)
 ‘The ship sinks *sailors (*by the enemy / *on the part of the enemy / all by itself).’

By contrast, internally caused verbs (transitive and unergative), such as *piti* ‘drink’, *spati* ‘sleep’ and *hoteti* ‘want’, allow only animate external arguments. Their external argument can thus be interpreted as an agent, but not as an instrument or a natural force or cause. Like in external causatives, *se* reduces the Agent θ -role in the lexicon. However, the external argument of internally caused verbs is at the same time the undergoer/experiencer of the causing event, in this case a mental or physical state or process. Therefore, in order to satisfy the semantic requirement that the undergoer of the causing event is overtly expressed, the external argument cannot be deleted, i.e. totally eliminated. Instead, it is internalised and resurfaces as a dative indirect object

with an Experiencer θ -role.¹⁵ The dative case is the inherent case assigned by the verb and associated with the Experiencer θ -role. The direct internal argument of a transitive internally caused verb need not be externalised, as shown in (73), repeated (57), because the derivation of internal causatives does not involve detransitivisation of the verb.

- (73) Pilo se mi je vodo.
 drink.PCP.SG.NEUTER SE I.DAT AUX.3SG water.ACC
 ‘I felt like drinking water.’

Thus it is the nature of the causing event being interpreted as either externally or internally caused that determines how the external argument is reduced, rather than any property of the morpheme *se*, which has the same role in both types of causatives – namely, it reduces the external role. If the cause is interpreted as external, the external argument is deleted. If, on the other hand, the cause is interpreted as internal, i.e. some inherent property, the external argument is internalised, i.e. demoted to the indirect object.

Another syntactic difference between internal causatives and anticausatives concerns the internal argument. Unlike in anticausatives, the direct internal argument of an internally caused verb can remain in direct object position, as we have seen in (73), or it can alternatively move to subject position at a pre-syntactic, i.e. lexical level, as in (74), repeated (56).

- (74) Pila se mi je voda.
 drink.PCP.SG.FEM SE I.DAT AUX.3SG water.NOM
 ‘I felt like drinking water.’

Thus the derivation of anticausatives involves detransitivisation of a verb and obligatory promotion, while the derivation of internal causatives involves no detransitivisation and only optional promotion. I do not have an answer to the question of why anticausatives obligatorily detransitivise while internal causatives remain transitive, and just what mechanism is at work. Here I just propose three possible factors, concerning the type of input, the semantic role of the internal argument and the modification of the argument structure. As mentioned above, anticausatives require exclusively transitive input (e.g. *potopiti* ‘sink’), while internal causatives can have transitive and intransitive input (e.g. *piti* ‘drink’, *spati* ‘sleep’). Moreover, the internal argument of an externally caused verb, such as *potopiti* ‘sink’, is crucial for the semantics of the whole predicate because it is the undergoer of the change of state denoted by the verb, while the internal argument of an internally caused verb, such as *piti* ‘drink’, is not crucial for the semantics because it does not represent the undergoer of the state or process denoted by the verb. Finally, the argument structure of an external causative verb has one argument fewer than that of its input verb because the external argument is deleted, as shown in (75), while the number of arguments of an internal causative verb and its input verb is the same because the external argument is demoted to the indirect object argument, and only the thematic structure is different, as shown in (76).

¹⁵ In section 2.3.3 I argue that dative DPs in Slovene internal causatives are indirect objects rather than syntactic (quirky) subjects because they do not display properties typical of syntactic subjects.

- (75) a. POTOPITI 'sink' < 1, 2 >
 | |
 Agent Patient
- b. POTOPITI SE 'sink by itself' < 1 >
 |
 Patient

- (76) a. PITI 'drink' < 1, 2 >
 | |
 Agent Patient
- b. PITI SE 'feel like drinking' < 1, 2 >
 | |
 Experiencer Patient/Theme

Thus the exclusively transitive input, semantically required internal argument and deletion of the external argument from the argument structure of a verb may all play a role in determining whether the verb will detransitivise or not in Slovene. What is important to note is that the presence or absence of an object in Slovene derived causatives does not depend on the morpheme *se*.

4. Causative *se* vs. other types of *se* in Slovene

In the preceding sections I have discussed several arguments in support of the proposal that *se* in Slovene internal causatives and anticausatives represents a single use of *se* because it has the same role in both types of sentences: it reduces the external argument of a verb in the lexicon. Since this use of *se* operates in both types of derived causatives in Slovene, I refer to it as “causative *se*”.

Additional evidence that *se* in internal causatives and *se* in anticausatives have the same function is the fact that they display the same characteristics and differ in the same way from the other types of Slovene *se*. As shown in Grahek (2004, 2006), Slovene constructions with different types of *se* display unique properties which distinguish them from one another. So the distinguishing property of reflexive/reciprocal *se* in (77) is the ability to be replaced by either a full reflexive pronoun *sebe* ‘self’ or reciprocal pronoun *eden drugega* ‘each other’ or another full DP.¹⁶

- (77) a. Peter se sovraži. (reflexive/reciprocal *se*)
 Peter SE hate.3SG.PRES
 ‘Peter hates himself.’

¹⁶ The full forms, i.e. non-clitic forms, of genitive, dative and accusative pronouns are only used in Slovene when they are required for semantic or syntactic reasons, i.e. when they are emphasised or when they must stand in isolation (as in answers to questions). So sentence (77b) would sound more natural if followed by another clause expressing contrast, as shown below.

- (i) Peter sovraži sebe, ne njo.
 Peter hate.3SG.PRES self.ACC NEG she.ACC
 ‘Peter hates himself, not her.’

- b. Peter sovraži sebe.
 Peter hate.3SG.PRES self.ACC
 ‘Peter hates himself.’

Verbs with inherent *se*, such as *smejati se* ‘laugh’ in (78), can be distinguished from other verbs with *se* in that they have no semantically related non-*se* forms that could serve as bases for their derivation. If a form without *se* does exist, it represents the same verb (e.g. *jokati (se)* ‘cry’) or an independent lexical item (e.g. *imeti* ‘have’, *imeti se* ‘feel, get on’).

- (78) a. Ana se smeje. (inherent *se*)
 Ana SE laugh.3SG.PRES
 ‘Ana laughs.’

- b. *Ana smeje.
 Ana laugh.3SG.PRES

Middles, on the other hand, are unique in having a demoted human argument (not necessarily agentive) which is interpreted as generic or indefinite and can be overtly expressed as an oblique (in a *s strani* ‘on the part of’ phrase) when denoting collectives referring to entities associated with humans, as in (79).

- (79) Novosti se (s strani zakonodajalca) ne
 innovation.GEN SE (on the+part+of legislator) NEG
 prizna.
 recognise.3SG.PRES
 ‘The innovation is not recognised (by the legislator).’ (middle *se*)

Causative *se* differs from the other uses in that it reduces only the external argument, which gets demoted to the indirect object in internal causatives and deleted in anticausatives. Internal causatives and anticausatives are further distinguished from other *se*-sentences in that they have an implied cause in their semantics – interpreted as internal in the former and as external in the latter. The above distinction between different types of *se* is set out in Table 2.

Table 2. Distinguishing properties of the four major types of Slovene *se*.

	Replaced by a full pronoun or DP	No related non- <i>se</i> base forms	Demoted human argument	Reduced external argument, unspecified cause
Reflexive/reciprocal <i>se</i>	✓	✗	✗	✗
Inherent <i>se</i>	✗	✓	✗	✗
Middle <i>se</i>	✗	✗	✓	✗
Causative <i>se</i>	✗	✗	✗	✓

The examples below demonstrate that unlike reflexive/reciprocal *se*, causative *se* cannot be replaced by a full pronoun or DP ((80a) and (81a)), and that verbs with causative *se* always have a non-*se* base variant, unlike verbs with inherent *se* ((80b) and (81b)). Unlike middles, sentences with causative *se* can never have their reduced

argument expressed as an oblique ((80c) and (81c)). Furthermore, unlike in middles, the reduced argument in internal causatives and anticausatives is never interpreted as generic or indefinite.

(80) Internal causatives, causative *se*:

- a. *Petru spi sebe.
Peter.DAT sleep.3SG.PRES self.ACC
- b. Peter spi.
Peter.NOM sleep.3SG.PRES
'Peter is asleep.'
- c. Petru spi (*s strani Petra).
Peter.DAT sleep.3SG.PRES (on the+part+of Peter.GEN)
'Peter is sleepy (*by Peter).'

(81) Anticausatives, causative *se*:

- a. *Ladja potopi sebe.
ship.NOM sink.3SG.PRES self.ACC
- b. Sovražnik potopi ladjo.
enemy.NOM sink.3SG.PRES ship.ACC
'The enemy sinks the ship.'
- c. Ladja se potopi (*s strani sovražnika).
ship.NOM SE sink.3SG.PRES (on the+part+of enemy.GEN).
'The ship sinks (*by the enemy).'

The above differences between different types of *se*-sentences seem to arise from the different role of *se* during their derivation. As I have argued in this paper, causative *se* operates in the lexicon where it reduces the external role. As such, causative *se* differs from the other uses of *se*, which either reduce the internal role (reflexive/reciprocal *se*, inherent *se*) or reduce the external role in the syntax (middle *se*). In Grahek (2006) I discuss in more detail the role of the other types of *se*. I provide evidence that inherent *se*, which like causative *se* operates in the lexicon, differs in that it reduces the internal role of a verb. Reflexive/reciprocal *se*, on the other hand, operates on the predicate's grid, i.e. in the syntax, where it reduces the internal role. Finally, middle *se* differs from causative *se* in that it operates in the syntax and that it reduces not only the external role, but also the subject of non-agentive verbs, such as *dobiti* 'get' and *umreti* 'die'. The distinction between the four types of *se* as a role-reducing operator in Slovene is shown in the table below.¹⁷

¹⁷ The evidence for lexical derivation of verbs with inherent *se* and syntactic derivation of middles and sentences with reflexive/reciprocal *se* is discussed in Grahek (2006). The derivation of middles is also discussed in Grahek (2008).

Table 3. *Se* as a role-reducing operator in Slovene.

	Reduces the internal argument	Reduces the external or the highest argument
Operates in the lexicon (on the verb's grid)	Inherent <i>se</i>	Causative <i>se</i>
Operates in the syntax (on the predicate's grid)	Reflexive/reciprocal <i>se</i>	Middle <i>se</i>

Despite the fact that *se* has a different impact on different types of base verbs, I argue that there is only one morpheme *se* in the lexicon. In all its manifestations *se* represents the same lexical item, i.e. a non-referential functional element, which marks the modification of a verb's argument structure and signals the reduction of an argument. Under this unified analysis of *se*, the effect of *se* on the verb's argument structure is predictable not from any inherent properties of *se* but from the properties of different classes of base verbs. The latter also determine the resulting syntactic structure and its semantic interpretation. Simplifying considerably, when *se* combines with a verb which selects an animate object that can be replaced with a reflexive pronoun, the resulting structure is a predicate with reflexive/reciprocal *se*. When *se* combines with a verb with no *se*-variant, it derives a verb with inherent *se*. Middles are derived by *se* operating on a verb with a human subject, while internal and external causatives result from *se* operating on agentive verbs that can express internally or externally caused spontaneous events, respectively. A detailed discussion of the proposal along these lines can be found in Grahek (2006, Ch 6).

5. Conclusion

In this paper I have argued that Slovene sentences traditionally termed “involuntary state constructions” are causative constructions expressing internally caused events. I have presented evidence that Slovene “internal causatives” can only be derived from verbs such as *spati* ‘sleep’, *rigati* ‘belch’ and *jesti* ‘eat’, which describe events that can be internally caused. During their derivation the morpheme *se*, which functions as a role-reducing operator, reduces the verb's Agent argument at the lexicon level. I have made two novel claims regarding Slovene internal causatives, namely that their Agent is internalised to Experiencer indirect object, and that their direct object (if present) is optionally promoted to subject position. These are potentially controversial claims, since they assume first, that internalisation to indirect object position, a regular feature in the Relational Grammar, is also possible in the Government and Binding Theory, and second, that Slovene internal causatives without nominative DPs are subjectless sentences. Further investigation of these phenomena will be left for the future.

Another claim in this paper, not yet made in the literature, is that Slovene has two types of derived causatives, i.e. internal causatives and anticausatives, both (usually) displaying “causative *se*” which reduces the external argument of a verb. Both types of causatives lack the external argument, imply an unspecified cause which can be reflected in a phrase meaning ‘all by itself’ (e.g. *sam/a/o od sebe*) and appear to be lexically derived. The differences between the two causatives do not disprove the idea that internal causatives and anticausatives share the same type of *se* because they mostly follow from the properties of the input verbs and are independent of *se* and its impact on the verb's argument structure. Internal causatives differ from anticausatives in that their cause is interpreted as internal rather than external (which is determined by the verb's lexical semantics), that their demoted argument is

internalised rather than deleted (because it is the undergoer as well as the initiator of the causative event) and that their verb remains transitive. Several possible reasons have been put forward to account for the lack of detransitivisation in internal causatives (such as the type of input and valency modifying process), however this is an area in need of further investigation.

Throughout this paper it has been assumed that *se* in Slovene is not an argument of a verb but rather a role-reducing operator, a functional element, which combines with different classes of input verbs to derive different types of sentences with *se*: it reduces either the object role (reflexive/reciprocal *se*, inherent *se*) or the subject role (middle *se*, causative *se*), either in the lexicon (inherent *se*, causative *se*) or in the syntax (reflexive/reciprocal *se*, middle *se*). The discussion of internal causatives and other Slovene *se*-sentences has raised several questions regarding the mechanisms of argument reduction which will be left for future research, especially the question of how to account for the reduction of arguments both in the syntax and in the lexicon, a phenomenon routinely assumed in the literature (Wehrli 1986, Keyser & Roeper 1984, among others).

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