

MODALITY AND CAUSATION IN SERBIAN DATIVE ANTICAUSATIVES:
A CROSSLINGUISTIC PERSPECTIVE

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ABSTRACT

In this dissertation I provide a principled, unified account of modality and causation in Serbian dative anticausatives using a typological, cognitive approach. This analysis is set within a larger claim that the causative and modal meanings cross-linguistically arise in the same morphosyntactic environments, indicating a shared conceptual base (i.e., CAUSE and ENABLE) and a close semantic relationship between these meanings (cf. Talmy, 1988, 2000). I present three kinds of evidence for this claim. First, modal meanings are shown to arise as presuppositions along with the asserted causative meaning, both in a single reading of a construction (Italian *FI* causatives). Second, when a causative assertion fails to obtain modal meanings are shown to arise as the new asserted meaning (Finnish *desiderative* causatives). Third, causative and modal assertions are shown to arise as two interpretations of the same construction, as determined by the lexical semantics of the predicate (Serbian dative anticausatives).

I further propose that causative and modal meanings indicate a split in the semantically unified notion of agency, which prototypically also involves the notion of control. This split results in allocation of control to another controller which is either physically separate from the agent, or perceived as distinguishable from it (cf. Klaiman, 1988). The controller is related to the event through a causal relation CAUSE or ENABLE via a mediating agent who lacks control over the predicated event (Claim 2). Morphosyntactic environments which express this type of causal relation are therefore crosslinguistically found to give rise to causative and modal meanings. As demonstrated by the Italian and Finnish causatives, as well as the dative anticausatives in Serbian, both

causative and anticausative constructions constitute this kind of morphosyntactic environment and consequently give rise to causative and modal meanings.

Finally, I argue that the presence of an overtly expressed controller yields a causative assertion, while the absence of an overtly expressed controller yields a modal assertion (Claim 3). This situation is evidenced by the distinction between the canonical causatives and the desiderative causatives in Finnish.

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LIST OF ABBREVIATIONS

ABS	absolute
ACC	accusative
ADESS	adessive
AIA	ability and involuntary action
AOR	aorist
AUX	auxiliary
CAUS	causative
CL	clitic
DAT	dative
DET	determiner
DIR	direct
ERG	ergative
FEM	feminine
FUT	future
GEN	genitive
IMPERF	imperfective
INF	infinitive
INV	inverse
MASC	masculine

N	neutral
NOM	nominative
NACT	non-active
NEG	negation
NONFUT	non-future
OOC	out-of-control
PART	partitive
PERF	perfective
PCP	participial
PL	plural
PRS	present
POSS	possessive
PST	past
REL	relative pronoun
SG	singular
SUBJ	subject
TOP	topic

CHAPTER 1

INTRODUCTION

1.1 Background

This research was motivated by the dative anticausative construction in Serbian (South Slavic), which gives rise to the accidental causative meaning or to the modal necessity meaning, as determined by the lexical semantics of the predicate. Lexically causative predicates, i.e., predicates which denote change of state and are compatible with any type of event initiator, yield the accidental causative meaning (1a) and preclude the modal necessity meaning (1b). In contrast, agentive predicates, i.e., predicates which are compatible only with an intentional agent who initiates and controls the event, yield the modal necessity meaning (2a) while the accidental causative meaning is precluded (2b) (see Chapter 2 for a detailed description of this construction).

Serbian, accidental causative

(1) Marku se prosula kafa.

Mark.DAT SE PERF.spill.PCP.FEM.SG coffee.NOM.FEM.SG

a) 'Mark accidentally spilled the coffee.'

b) *'Mark had the urge to spill the coffee.'

Serbian, modal necessity

(2) Marku se pije kafa.

Mark.DAT SE IMPERF.drink.PRS.3.SG coffee.NOM.SG

a) 'Mark is craving coffee.'

b) *'Mark is accidentally drinking the coffee.'

Serbian dative anticausatives provide no obvious clue with respect to how and why the accidental causative meaning and the modal necessity meaning would arise in this particular construction, nor with respect to why these meanings would arise together, as two interpretations of, what appears to be, the same morphosyntactic structure. The accidental causative meaning and the modal necessity meaning which occur in dative anticausatives are therefore typically viewed as semantically unrelated (e.g., Marušič and Žaucer, 2006; Rivero, 2009).

Assuming that the interpretive differences between the accidental causative and the modal necessity meaning result from two different underlying structures, most linguists treat the sentence illustrated in (2) as a separate construction and attempt to explain its modality without giving much further attention to its accidental causative meaning illustrated in (1) (but see Kallulli, 2006). This kind of double-structure approach requires various stipulations and complex syntactic proposals. The modality of the construction in (2) has consequently been attributed to sources as diverse as a phonologically null modal verb (Franks, 1995), a covert psych-verb (Marušič and Žaucer, 2006), lexical feature-bundling and creation of complex theta-roles (Kallulli, 2006), and the imperfective aspectual operator (Rivero, 2009). The proposed syntactic

solutions have likewise been varied, including, e.g., a non-traditional monoclausal structure with an applicative phrase in its topic domain (Rivero, 2009) and even a full-blown biclausal structure (Marušič and Žaucer, 2006). These new proposed constructions have consequently been given new labels, such as the *feel-like* construction (Marušič and Žaucer, 2006) and the *involuntary state* construction (Rivero, 2009).

In Chapter 3, I present a detailed description of these analyses and argue that this kind of syntactic approach does not provide a satisfactory explanation of the modality in the dative anticausative construction because it overlooks the basic conceptual relationship between modality and causation (see Section 1.2 below). The approach I take in this dissertation is, therefore, that the modality of the dative anticausative construction can be accounted for in a principled way only if it is considered along with the accidental causative meaning, both of which, I argue, arise from essentially the same morphosyntactic structure (cf. Kallulli, 2006). With this view in mind, the research questions of this dissertation are formulated as follows:

Research questions:

1. Why do the accidental causative meaning and the modal necessity meaning which arise in the Serbian dative anticausative construction arise together, as two interpretations of the same morphosyntactic structure?
2. Why do these meanings arise in this particular construction?
3. What is the source of origin of these meanings?

1.2 The proposal

The unified account of Serbian dative anticausatives which is advocated in this dissertation is set within a larger proposal that the semantic notion of causation and the semantic notion of modality involve the same two related, but clearly distinguishable, concepts of CAUSE and ENABLE which give rise to both causative and modal meanings.

The idea that the notion of causation involves the concepts of CAUSE and ENABLE has long been recognized in studies investigating the conceptual nature of causation (see Wolff, 2003 for an overview), and indirectly also in typological studies of causation, which point out that productive morphological causatives often express the notion of permission, as well as the causative proper meaning (e.g., Nedyalkov and Silnitsky, 1973; Comrie, 1981; Comrie and Polinsky, 1993; Kulikov, 1993, 2001, among many others). This is the case in, for example, Japanese, in which the causative morpheme allows both causative permissive (3) and causative proper (4) interpretation.

Japanese, causative permissive (Dubinsky, 1994: 47)

- (3) Sensei ga seito ni eigo o hanasasete.
teacher NOM pupil DAT English ACC speak-CAUS-PST
'The teacher let the pupils speak English.'

Japanese, causative proper (Dubinsky, 1994: 47)

- (4) Sensei ga seito ni eigo o hanasasete.
teacher NOM pupil DAT English ACC speak-CAUS-PST
'The teacher made the pupils speak English.'

Similar to causation, modality also expresses two basic meanings which can be understood in terms of CAUSE and ENABLE – that of possibility and necessity. For example, *event* modality (Palmer, 2001) expresses either a possibility (ENABLE) or a necessity (CAUSE) for the event actualization. The two basic modal meanings of possibility and necessity give rise to more specific modal meanings, such as, e.g., permission (5) and obligation (6), which are illustrated below using an example from Swedish (a detailed classification of modal meanings is provided in Chapter 5, Section 5.1.4).

Swedish, modal permission (Wagner, 1976: 56)

- (5) Lasse får köra bil.
Lasse gets drive car
'Lasse may drive the car.'

Swedish, modal obligation (Wagner, 1976: 56)

- (6) Lasse får köra bil.
Lasse gets drive car
'Lasse must drive the car.'

Based on these observations, it seems reasonable to hypothesize that modality and causation involve the same two concepts of CAUSE and ENABLE, which give rise to the two basic causative meanings (causative proper [CAUSE] and causative permission [ENABLE]), as well as to the two basic modal meanings (necessity [CAUSE] and possibility [ENABLE]). This is summarized in Table 1 below.

Table 1. Causative and modal meanings as CAUSE and ENABLE

	Causative	Modal
CAUSE	Proper	Necessity
ENABLE	Permissive	Possibility

Indeed, a semantic unification of causative and modal verbs in terms of CAUSE and ENABLE has already been proposed in Talmy (1988, 2000), as part of his force-dynamic theory of causation. However, to the best of my knowledge, the proposed conceptual relationship between causation and modality has never been validated in the literature with crosslinguistic data.

In this dissertation I present three kinds of evidence that the concepts of CAUSE and ENABLE underlie both causation and modality (Chapters 6 and 7). The first kind of evidence for this perspective is seen in the fact that causative and modal meanings can arise – sometimes with one as assertion and one as a non-cancellable presupposition – in a single reading of a construction. This is demonstrated using data from the Italian periphrastic causatives (Section 6.1) and the morphological causatives in Finnish (Section 6.2.1). Secondly, I show that under certain morphosyntactic conditions, when the causative assertion fails to arise, a modal meaning arises as the new assertion. This

situation is illustrated using the desiderative causatives in Finnish, a particular type of Finnish morphological causatives which lacks the overtly expressed causer argument and consequently asserts a modal meaning (Section 6.2.2). Thirdly, I demonstrate that, depending on the lexical semantics of the predicate, causative and modal assertions may arise as two different interpretations of the same construction – Serbian dative anticausatives being the case in point (Section 7.3). Based on this evidence, I make the following claim:

Claim 1: Causative and modal meanings are cross-linguistically found in the same morphosyntactic environments, indicating a shared conceptual base (i.e., CAUSE and ENABLE) and a close semantic relationship between these meanings.

1.3 Lack of agent control

A situation similar to that illustrated by the Serbian dative anticausatives, in which the accidental causative meaning and modality arise as two interpretations of the same construction, is also found in languages as diverse as, e.g., Albanian, Tagalog and Lillooet Salish. This is illustrated in (7) through (12) below.¹

¹ Note that, while the modal meaning which arises in the Albanian example in (8) is the same as in Serbian (and other South Slavic languages, i.e., that of modal necessity), the modal meaning which arises in Tagalog and Lillooet Salish illustrated in (10) and (12), respectively, is that of modal possibility, and is often referred to as the *abilitative* or the ‘manage to’ meaning (e.g., Schachter and Otnes, 1972 for Tagalog and, e.g., van Eijk, 1997 for Lillooet Salish). These facts are not surprising considering my main proposal that the causative and the modal meanings are semantically related and only indicate a close semantic relationship between the concepts of CAUSE and ENABLE, which are claimed to underlie the accidental causative meaning and the modal possibility meaning.

Albanian, accidental causative (Kallulli, 2006: 274)

- (7) Benit i-u thye dritarja.
Ben.DAT DAT.CL.3SG-NACT broke.AOR.3SG window.NOM
'Ben unintentionally (accidentally) broke the window.'

Albanian, modal necessity (Kallulli, 2006: 274)

- (8) Benit i ha-hej një mollë.
Ben.DAT DAT.CL.3SG eat-NACT.PAST.IMP.3SG an apple.NOM
'Ben felt like eating an apple /Ben was apple-hungry.'

Tagalog, accidental causative (Dell, 1983: 180)

- (9) Naitulak ni Ben ang bato.
AIA-PERF-push GEN Ben NOM rock
'Ben accidentally moved the rock by pushing it.'

Tagalog, modal possibility (Dell, 1983: 180)

- (10) Naitulak ni Ben ang bato.
AIA-PERF-push GEN Ben NOM rock
'Ben managed to move the rock by pushing it.'

Lillooet Salish, accidental causative (Davis, Matthewson and Rullmann, 2009: 212)

- (11) *ka-gwél-s=kan-a* ta=ngúy'tten=a.
OOC-burn-CAUS-1SG.SUBJ-OOC DET=bed=DET
'I accidentally set my bed on fire'.

Lillooet Salish, modal possibility (van Eijk, 1997: 51)

(12) *ka-gwél-s=kan-a*

OOO-burn-CAUS-1SG.SUBJ-OOO

‘I managed to get it lit.’

What these constructions across different languages have in common is that they indicate lack of control on the part of the human participant, control being the semantic property typically associated with the notion of agency (the notion of control is defined in Chapter 2). This observation was made in, e.g., Dell (1983) for Tagalog, van Eijk (1997) for Lillooet Salish, Kallulli (2006) for Albanian, and Rivero (2009) for South Slavic. Lack of control in the examples above seems to be indicated morphologically by the non-active (NACT) morpheme in Albanian, the *ability and involuntary action* (AIA) morpheme in Tagalog, the *out-of-control* (OOO) morpheme in Lillooet Salish, and the anticausative (SE) morpheme in Serbian (see Chapter 7 for a complete proposal on the role of the Serbian morpheme *se* in the anticausative semantics). However, even though the data from Albanian, Tagalog, Lillooet Salish, and Serbian constructions discussed above suggest some kind of connection between lack of control on the part of the agent on the one hand, and the accidental causative and the modal (possibility or necessity) meaning on the other, they provide no clue with respect to how exactly the concept of control should be related to these meanings, nor with respect to how and why the same morphosyntactic environment – the one expressing lack of control on the part of the agent – should give rise to both accidental causation and modality.

1.4 A split in the semantically unified notion of agent

In this dissertation, lack of control on the part of the agent (i.e., lack of agent control) is taken as an indication that the control over the event is allocated elsewhere. In other words, although a prototypical agent is also a controller, control over the event can be disassociated from the agent and attributed to another controller. Indeed, in some languages agents and controllers are morphologically distinguished from each other. This situation is found in, e.g., Fore, an ergative language spoken in Papua New Guinea. As demonstrated below, this language makes a distinction between human agents, which are morphologically unmarked (13) and animate controllers, which are marked with the ergative case (14).²

Fore, a human agent (de Hoop & Malchukov, 2008: 569)

- (13) Yagaa wá aegúye.
 pig man hit
 ‘The man hits/kills the pig.’

Fore, an animate controller (de Hoop & Malchukov, 2008: 569)

- (14) Yagaa-wama wá aegúye.
 pig -ERG man hit
 ‘The pig hits/kills the man.’

² I would like to thank Dr. William O’Grady for bringing these data to my attention.

An independent status of the controller is further supported by the fact that the agent and the controller can occur next to each other in the same sentence. This situation is well attested in Navajo, in which attribution of control is indicated using verb morphology. According to Klaiman (1988), control in this language is associated with the sentence-initial subject position, and can therefore converge with either the patient or the agent. For example, the *direct* verb form in (15) below indicates that the agent, i.e., *the tree*, is also the controller of the predicated event. In contrast, the *inverse* verb form in (16) indicates that the predicated event is controlled by the patient, i.e., *the rock*. This situation is perceived as semantically odd, because it “connotes that the rock let the tree fall on it,” and the sentence is consequently starred (Klaiman, 1988: 52).

Navajo, direct verb form (Klaiman, 1988: 52)

- | | | | | |
|------|-----------------------------|------|--------------|-------------------------|
| (15) | T'iis | tsé | yi-k'iiké'éz | <i>Agent/controller</i> |
| | Tree | rock | DIR-fell-on | |
| | 'The tree fell on the rock' | | | |

Navajo, inverse verb form (Klaiman, 1988: 52)

- | | | | | |
|------|---------------------------------------|-------|--------------|---------------------------|
| (16) | *Tsé | t'iis | bi-k'iiké'éz | <i>Patient/controller</i> |
| | Rock | tree | INV-fell-on | |
| | 'The rock was fallen on by the tree.' | | | |

Similarly, the direct verb form illustrated in (17) below indicates that the agent, i.e., *the baby*, is also the controller in the sense that the baby undertook to kick the man.

Since this situation is perceived as semantically odd, the sentence is unacceptable. In contrast, the inverse verb form illustrated in (18) below indicates that the real controller in this situation is the patient, i.e., *the man*, in the sense that he enabled the baby to kick him, e.g., by standing too close to her, while the agent, i.e., *the baby*, is perceived merely as the source of action.

Navajo, direct verb form (Klaiman, 1988: 52)

- (17) *Awéé'cí'í diné yi-ztał. *Agent/controller*
Baby man DIR-kicked
'The baby kicked the man.'

Navajo, inverse verb form (Klaiman, 1988: 52)

- (18) Diné awéé'cí'í bi-ztał *Patient/controller*
Man baby INV-kicked
'The man was kicked by the baby.'

In short, the data from Fore and Navajo indicate that control is a conceptual notion which, although prototypically associated with the agent, can be disassociated from it and attributed to another controller. When the controller and the agent co-occur in the same sentence, the semantically unified notion of agent is split between the controller, which controls the predicated event, and the agent, who is primarily seen as the event initiator.

1.5 Causation, modality and control

In this section, I propose that the causative and the modal meanings also involve a split in the semantically unified agent. Causative and modal meanings consequently involve a lack of control on the part of the agent due to the presence of another controller that controls the event.

This conclusion is supported both by the typological practice of discussing distribution of control in causative constructions (e.g., Comrie, 1981) and by the approach to causation and modality advanced within the force-dynamic theory of causation (Talmy, 1988, 2000). As pointed out by Comrie, in the causative proper meaning, the causer “has the power to bring the effect about,” while in the causative permissive meaning, the causer “has the power to prevent the effect from coming about.” In both cases, “realization of the effect is at least partially within the control of the ‘causer/permitter’” (Comrie, 1981: 164). For example, in Japanese causative constructions illustrated in (19) and (20) below, realization of the predicated event of going home early depends on the causer, i.e., *Tanaka*, who therefore controls the causative situation regardless of the particular interpretation (i.e., causative proper vs. causative permissive).

Japanese, causative proper meaning (Dubinsky, 1994: 47)

(19) Tanaka wa hisyo o hayaku kaer-ase-ta.

Tanaka TOP secretary ACC early go.home-make-PST

‘Tanaka made his secretary go home early.’

Japanese, causative permissive meaning (Dubinsky, 1994: 47)

(20) Tanaka wa hisyo ni hayaku kae-rase-ta.

Tanaka TOP secretary DAT early go.home-make-PST

‘Tanaka let his secretary go home early.’

Note that in causative meanings, the controller is overtly realized as the causer and is therefore clearly physically separated from the agent, which is realized as the causee. In contrast to causative situations, modal situations are controlled by the implied factors, such as, e.g., laws and moral principles, a person’s desires, circumstances, *etc.* These factors are either external or internal to the agent. For example, in (21) below, the controlling factors, i.e., *hospital regulations*, are external to the agent, i.e., *visitors*, and are therefore clearly physically separated from it. Similarly, in (22) below, the controlling factor, i.e., *a stern father*, is external to the agent, i.e., a child referred to as *you*, and is therefore clearly physically separated from it. However, in (23), the controlling factor, i.e., circumstances related to *the current state of one’s nose*, is internal to the agent, i.e., the referent of the pronoun *I*. Nevertheless, these circumstances are perceived as distinguishable from the agent and, hence, not under the agent’s control (see Chapters 4 and 5 for a more detailed description of causation and modality).

Modal necessity meaning (Kai von Fintel, 2006: 2)

(21) Visitors have to leave by 6pm. (according to hospital regulations)

(22) You have to go to bed in 10 minutes. (stern father)

(23) I have to sneeze. (given the current state of one’s nose)

Although the controller in causative and modal situations is not an argument of the main verb, it is perceived as crucially related to the predicated event in terms that it either causes the event actualization, in which case a causative meaning arises, or creates conditions for the event actualization, in which case a modal meaning arises. In view of this fact I propose that the controller in causative and modal situations is linked to the predicated event through a causal relation (CAUSE or ENABLE) via a mediating agent. This proposal is formulated as my second claim:

Claim 2: The controller and the agent who lacks control over the event are linked together in a mediated causal relation which gives rise to the causal concepts of CAUSE and ENABLE, and consequently to the causative and modal meanings.

Based on this claim, causative and modal meanings are expected to arise in morphosyntactic environments which indicate a split in the semantically unified agent and consequently involve this kind of causal relation between a controller and the agent who lacks control over the predicated event. In Chapters 6 and 7, I demonstrate that both causative and anticausative constructions constitute this kind of morphosyntactic environment and therefore give rise to causative and modal meanings. The evidence comes from causative constructions in Italian and Finnish and the dative anticausative construction in Serbian. What these causative and anticausative constructions have in common, I argue, is that they all indicate lack of control on the part of the agent due to

the presence of another controller that controls the event. Finally, in Chapter 6, I show that only those agents which are the obligatory arguments of the predicate participate in the causal relation.

However, if both causative and modal meanings arise in the same kind of morphosyntactic environment, i.e., the one indicating lack of agent control due to the presence of another controller, then how is it determined which meaning arises as the assertion in a particular construction? To address this issue, I make my third claim:

Claim 3: When the controller is overtly expressed, a causative assertion arises. When the controller is not overtly expressed, and the causative assertion therefore fails to obtain, a modal assertion arises.

This claim is crucially based on the observation that causative situations are controlled by the overtly expressed causers, while modal situations are controlled by implied factors, such as knowledge, evidence, laws, social or moral rules and principles, other people's wishes, or circumstances, *etc.* (see above). Evidence for this claim comes from the morphological causatives in Finnish, which assert a causative meaning when they occur with the overtly expressed causer, and a modal meaning when the causer is implied (Section 6.2.2).

Table 2 below summarizes properties of causal relations CAUSE and ENABLE, which are claimed to underlie causative and modal meanings, with respect to control.

Table 2. Causatives, modals and control

	Overt Controller [+control]	Obligatory Agent [-control]	Assertion
CAUSE/ENABLE	Yes	Yes	causative
	No	Yes	modal

In Chapter 7, I discuss the role of lexical semantics of the predicate in the interpretation of constructions indicating a split in the semantically unified notion of agency. Using the data from dative anticausatives in Serbian I show that the causative semantics of the predicate induces a causative assertion even though the construction does not involve an overtly expressed controller and is therefore expected to be modal. I argue that this is so because lexical semantics of causative predicates is compatible with the lack of agent control and consequently with the accidental causative interpretation which arises in this type of the dative anticausative construction. In contrast, dative anticausatives with agentive predicates cannot yield the agentive interpretation due to the incompatibility of the lexical meaning of their predicates with the lack of agent control. As a result, dative anticausatives with agentive predicates yield a modal assertion. Based on these data I conclude that modal assertions, which make a statement about conditions for the event actualization, arise as some kind of last resort interpretation, when no other assertion that makes a statement about the actual occurrence of the event can be made.

The remainder of this dissertation is organized as follows. Chapter 2 is a description of the Serbian dative anticausatives. In Chapter 3, I describe previous analyses of the dative anticausative construction and its modal meaning. In Chapter 4, I provide basic facts about causative and anticausative constructions and discuss them in

terms of control. In Chapter 5, I introduce the notion of modality and provide a classification of modal meanings. I then discuss causal approach to modality (Talmy, 1988), which is used as a loose theoretical framework in this dissertation. I subsequently define the causal concepts of CAUSE and ENABLE, as well as the notions of control and intentionality. In Chapter 6, I present crosslinguistic evidence from causative constructions demonstrating the semantic relationship between causative and modal meanings. Evidence from anticausative constructions is presented in Chapter 7. Chapter 8 is the conclusion, followed by a brief discussion of a broader significance of this research.

CHAPTER 2

DATIVE ANTICAUSATIVES IN SERBIAN

As already mentioned, Serbian dative anticausatives give rise to the accidental causative meaning and the modal necessity meaning which have no obvious source of origin – hence the diversity of proposals mentioned in the previous section. Nevertheless, if these two meanings are considered together, as arising from a single morphosyntactic structure, it becomes apparent that the dative anticausatives combine properties of the canonical transitive construction with properties of the anticausative construction. I consequently propose that the dative anticausatives are a dyadic anticausative construction which involves the external argument and the anticausative semantics. This analysis crucially assumes that the agent is a cluster of properties, i.e. a Proto Agent of the style proposed in Dowty (1979, 1991). On this view, the specific interpretation of the agent argument in the dative anticausative construction (i.e. the dative participant) is a result of the interaction between lexical semantics of the predicate and the anticausative morphology (cf. Kallulli, 2006, 2007).

In the following sections I provide a brief morphosyntactic description of the dative anticausative construction (Section 2.1), and describe the aspectual properties of the dative anticausative construction (Section 2.2). I then discuss the subjecthood of the dative participant, concluding that the notion of subject is not a useful notion in the particular case at hand, and is therefore not going to be used in this dissertation (Section 2.3). I subsequently discuss syntactic status of the dative participant (Section 2.4). Finally, I briefly discuss issues related to the analysis of the morpheme *se* in the Serbian

dative anticausative construction (Section 2.5) and conclude with the semantic description of the dative anticausative construction (2.6).

2.1 Morphosyntactic description

Serbian is a South Slavic language spoken in the Balkan area of Europe. It displays a nominative-accusative case system, a basic SVO word order, and subject-verb agreement. For example, the canonical transitive construction involves an active verb, the nominative agent which triggers verb agreement, and the accusative patient, as in (24).³

Canonical transitive (agentive predicate)

- (24) Marko jede kolače.
Mark.NOM IMPERF.eat.PRS.3.SG cake.ACC.PL
‘Mark is eating cakes.’

In contrast, the anticausative construction involves an active verb accompanied with the anticausative morpheme *se*, and has no external argument in the syntax. Anticausative verbs therefore agree with the patient argument, which is the sole argument bearing the nominative case (25).

³ Verbs agree with the nominative-marked noun phrase in person and number in present and future tense, and in gender and number in past tense. If the sentence has no nominative-marked nominal, the verb receives a default third person singular agreement. Present tense is marked inflectionally on the verb, while the past tense and the future tense are marked periphrastically and involve no tense-related inflectional morphology on the verb.

Anticausative (causative predicate)

(25) Vazna se slomila.

vase.NOM.FEM.SG SE PERF.break.PCP.FEM.SG

‘The vase broke.’

Similar to the anticausative construction, the dative anticausative construction involves morpheme *se*, which I argue is the same anticausative morpheme as the one illustrated in (25) above (see Chapter 7, Section 7.2.2), and a nominative patient triggering verb agreement. On the other hand, similar to the canonical transitive construction, the dative anticausative construction involves an argument in the subject position which is perceived as the logical subject of the verb (see section 2.3 below). However, this argument bears dative case, rather than nominative, and it does not trigger verb agreement. This is illustrated in (26) and (27) below.

Dative anticausative (causative predicate)

(26) Marku se slomila vazna.

Mark.DAT SE PERF.break.PCP.FEM.SG vase.NOM.FEM.SG

‘Mark accidentally broke the vase.’

Dative anticausative (agentive predicate)

(27) Marku se jedu kolači.

Mark.DAT SE IMPERF.eat.PRS.3.PL cakes.NOM.PL

‘Mark is craving cakes.’

Morphosyntactic properties of the canonical transitive, anticausative, and the dative anticausative construction are summarized in Table 3 below. As we can see, the dative anticausative construction patterns with the anticausative construction in the following aspects: presence of the morpheme *se*, and the subject-like properties of the patient argument, which bears the nominative case and triggers verb agreement. On the other hand, dative anticausative construction patterns with the canonical transitive construction in that it involves an obligatory argument which is perceived as the agent of the predicate (see Section 2.4 below).

Table 3. Morphosyntactic properties of the canonical transitive, anticausative, and the dative anticausative construction

	Agent Case	Presence of <i>Se</i>	Verb agreement with the agent	Patient Case
Canonical transitive	Nom	No	Yes	Acc
Anticausative	n/a	Yes	No	Nom
Dative anticausative	Dat	Yes	No	Nom

2.2 Aspect

The causative accidental meaning and the modal necessity meaning which arise in the dative anticausative construction occur in complementary distribution. This was already illustrated in examples (1) and (2), and again in examples (28) and (29) below.

With causative predicates, i.e., predicates which make reference to change of state and whose lexical semantics is compatible with any type of initiation, the asserted meaning is that of the accidental causation (28a), while the modal assertion is precluded (29b). On the other hand, when the predicate is an agentive verb, i.e., verb which makes no reference to change of state and whose lexical semantics is compatible only with an intentional agent in control of the event, the asserted meaning is that of modal necessity (29a), while the accidental causative meaning is precluded (29b).

Accidental causative

- (28) Marku se istopio sladoled.
 Mark.DAT SE PERF.melt.PCP.FEM.SG ice-cream.NOM.FEM.SG
- a) ‘Mark accidentally melted the ice cream.’
 b) *‘Mark had the urge to melt the ice cream.’

Modal necessity

- (29) Marku se jede sladoled.
 Mark.DAT SE IMPERF.eat.PRS.3.SG ice-cream.NOM.SG
- a) ‘Mark is craving ice cream.’
 b) *‘Mark is accidentally eating ice cream.’

Although the accidental causative meaning typically arises with perfective predicates and the modal necessity meaning with imperfective, these meanings do not crucially depend on aspect, but rather, as previously suggested, on the lexical meaning of

the predicate. Thus, agentive predicates cannot be coerced into the accidental causation interpretation even when the perfective form along with the past tense is used (30).⁴

Agentive predicate in the perfective aspect

- (30) *Marku se popila kafa.
Mark.DAT SE PERF.drink. PCP.FEM.SG coffee.NOM.SG
'Mark accidentally drank up the coffee.'

Similarly, the imperfective aspect does not preclude the accidental causative interpretation of the causative predicate in (31a). In fact, a causative predicate in the imperfective aspect may even receive the modal necessity interpretation, provided that it is used agentively (i.e., as if requiring to be initiated by an intentional human controller), and in an appropriate context (31b).

Causative predicate in the imperfective aspect

- (31) Marku se prosipa kafa.
Mark.DAT SE IMPERF.spill.PRS.3.SG coffee.NOM.SG
a) 'Mark is accidentally spilling the coffee.'
b) '?Mark has an urge to spill the coffee.'

⁴ In Serbian, the modal necessity meaning does not arise with perfective predicates. However, in some other languages, such as Slovenian and Bulgarian, as well as Albanian, this seems to be possible if the predicate is in the present tense. Crucially, agentive predicates never yield the accidental causative interpretation.

These data therefore indicate that the choice of interpretation of the predicate in the dative anticausative construction ultimately depends on its lexical meaning, rather than its aspectual value. This outcome is not surprising. Given my claim that Serbian dative anticausatives indicate lack of agent control, an interaction with the lexical semantics of the predicate, which contains the information on whether the event in question requires an intentional human controller (i.e., the agent) is, in fact, expected.

2.3 Subjecthood issues

In the traditional descriptive grammar, the dative argument in the dative anticausative construction in Serbian is considered as the indirect object which simultaneously is a sentence level topic, i.e., what the sentence is about (Stanojčić et.al., 1989, 1992). This view is based solely on the morphological properties of the dative argument. More recently, similar dative arguments in Russian have been analyzed as *quirky subjects*, i.e., as the external arguments bearing an oblique case (Kondrashova, 1993; Schoorlemmer, 1994; Avrutin and Babyonyshev, 1997), but also as indirect objects (Moore and Perlmutter, 2000). The former analysis pertains to impersonal constructions with predicates denoting psychological states (32), while the latter analysis additionally pertains to the Russian cognate of the Serbian dative anticausative construction with the modal necessity interpretation (33) (but see Chapter 3, Section 3.1, for an alternative analysis proposed in Franks, 1995).

Russian, psychological predicate (Avrutin and Babyonyshev, 1997: 235)

- (32) Volode bylo veselo.
Volodya.DAT was.NEU.SG merry.NEU.SG
'Volodya was having fun.'

Russian, dative anticausative with the modal interpretation (Franks, 1995: 364)

- (33) Mne ne rabotaet-sja.
I.DAT NEG work-SE
'I am not in the working mood.'

Both the quirky subject analysis and the indirect object analysis are based on the syntactic behavior of the dative argument, rather than its morphological properties alone. Thus, according to the quirky subject analysis, the dative argument in the impersonal construction in (32) above is the subject because it can antecede the reflexive pronoun and control into gerund clauses. Under the usual assumption of the Government and Binding theory these facts are explained through a c-commanding relationship between the antecedent and the element which it binds or controls. The dative argument is consequently analyzed as occupying the standard subject position in the syntactic structure. In contrast, Moore and Perlmutter point out that the dative arguments illustrated in (32) and (33) above do not pass all the syntactic subjecthood tests and therefore cannot be classified as quirky subjects of the type attested in languages such as Icelandic (e.g., Zaenen et al., 1985; Sigurdsson, 2002 among many others). On this view, the ability of the dative argument to pass some, but not all, subjecthood tests indicates

that this argument is an *inversion nominal*, i.e., an initial subject that has been demoted into an indirect object. The inversion analysis is couched within the Relational Grammar framework and relies on the assumption that the grammar is represented on multiple strata (Postal and Perlmutter, 1974).⁵

Similar to the dative participants in Russian discussed above, the dative participant in the dative anticausative construction in Serbian passes some subjecthood tests. For example, according to Progovac (2005), the dative participant in (34) can bind the reflexive possessive pronoun *svoj* ‘self’s’

Serbian dative anticausative, reflexive binding (Progovac, 2005: 77)

- (34) Jovanu_i se pije kafa
‘John.DAT SE IMPERF.drink.PRS.3.SG coffee.ACC.SG
u svojoj_i sobi.
in self’s room.LOC.SG
‘John feels like having coffee in is room.’

Moreover, the dative argument also passes some PRO control tests. For example, it can control implied subjects of gerundival (35) and infinitival (36) clauses.

⁵ One argument against such an analysis has been made in Haspelmath (2001), who points out that a development from a subject into an indirect object is diachronically very unlikely, while a development in the opposite direction, i.e., from an indirect object into a subject, has been well attested in natural language.

Serbian dative anticausative, PRO control into gerund

- (35) PRO_i stojeci u redu, Marku_i se prispavalo.
PRO standing in line, Mark.DAT SE INCEPT.sleep.PART.NEU.SG
'Standing in line, Mark got sleepy.'

Serbian dative anticausative, PRO control into an infinitival clause

- (36) Marku_i se idu PRO_i gledati filmovi.
Mark.DAT SE IMPERF.like.PRS.3.PL PRO watch.INF movies.ACC
'Mark is in the mood to go and watch movies.'

However, most of the standard subjecthood tests are either not applicable to the dative anticausative construction or provide inconclusive results, and therefore cannot be used as a reliable diagnostics in determining the syntactic status of the dative argument in this construction. In this dissertation, I therefore make no subsequent use of the term subject.⁶

2.4. The status of the dative participant

Nevertheless, the dative participant is perceived as the logical subject, i.e., the semantic agent or the semantic causer of the predicated event. For example, when the

⁶ For example, some standard subjecthood tests are not applicable to Serbian (e.g., raising), others are not applicable specifically to the dative anticausative construction (e.g. passivization, as well as the deletion under coordination and PRO control tests when the deleted nominal, or the nominal represented as PRO, is the dative argument). Some tests seem to involve a speaker variation (e.g., reflexivization), while yet others pick out more than just one nominal and are therefore either not reliable (e.g. deletion under coordination with the test nominal), or seem to target topicality, rather than the subjecthood status *per se* (e.g. PRO control into a gerundivial clause, provided that the test nominal is in the sentence-initial position).

canonical intransitive construction in (37) is compared to the dative anticausative construction in (38), it is clear that in both constructions the human participant, i.e., *Mark*, bears the same relation to the predicate. In the canonical construction, *Mark* is the agent performing the action of going on a vacation, while in the dative anticausative construction, *Mark* is the person who, in case of the event actualization, would be the agent performing the action of going on a vacation.

Serbian, canonical intransitive (agentive predicate)

(37) Marko ide na odmor.
 Mark.NOM IMPERF.go.PRS.3.SG on vacation.ACC.SG
 ‘Mark is going on a vacation.’

Serbian, dative anticausative, modal interpretation (agentive predicate)

(38) Marku se ide na odmor.
 Mark.NOM SE IMPERF.go.PRS.3.SG on vacation.ACC.SG
 ‘Mark has a desire to go on a vacation.’

Crosslinguistic support for this kind of view comes from the fact that in West Slavic languages, such as Czech and Polish, the dative anticausative construction entails actualization of the event even when it is interpreted as modal. The dative participant in the Czech example in (39) below is therefore clearly interpreted as the agent of the event of working, as well as the person having the ability to do so.⁷ The dative agent in the

⁷ In contrast to Serbian (and other South Slavic languages), dative anticausatives in West Slavic languages give rise to the modal possibility, rather than the modal necessity meaning. However, this distinction is

dative anticausative construction in (39) therefore differs from the nominative agent in the canonical intransitive construction illustrated in (40) only in that the latter is also interpreted as the controller of the event of working, while the controller in the dative anticausative construction in (39) are certain enabling circumstances that exist at the place referred to with the demonstrative *there*.

Czech, dative anticausative, modal possibility (Franks, 1995: 364)

(39) Sestře se tam pracuje výborně.

sister.DAT SE there work.3.SG excellently.

‘(My) sister is working (has the ability to work) excellently there.’

Czech, canonical intransitive (Biskup and Zybatow, 2008)

(40) Pavel pracuje.

Pavel.NOM work.3.SG

‘Pavel is working.’

Moreover, the dative anticausative construction in (41) provides a natural answer to the question in (42), which inquires about the reason of the agent participant to read a particular book, especially if the agent is not willing to provide the true answer or simply wants to end the conversation. Note that the dative participant in (41) is coreferential with the *pro* nominative agent of the canonical predicate *čítam* ‘I am reading’ at the

irrelevant for my current point. The distinction in actuality entailments between West Slavic and South Slavic languages is, similarly, irrelevant for my current point, although it otherwise demonstrates an important fact that the modality in Slavic dative anticausatives arises independently of whether the event is interpreted as actualized or not.

beginning of the same sentence. This fact indicates that the person having a desire to read is the same as the person doing the reading.

Serbian, canonical intransitive (agentive predicate)

- (41) Zašto čitaš tu knjigu?
Mark.NOM IMPERF.read.PRS.2.SG that book.ACC.SG
'Why are you reading that book?'

Serbian, canonical intransitive (agentive predicate)

- (42) (*pro*_i Čitam je) zato što
(*pro* read.PRS.1.SG it.ACC) because why.REL.
*mi*_i se čita!
I.DAT SE IMPERF.read.PRS.3.SG
'Because!' or 'I'm reading it because I feel like it!'

The conclusion that the dative participant in Serbian dative anticausatives with the agentive predicates is the agent is further supported by the fact that it cannot cooccur with another agent in the same sentence. For example, if the sentence in (43) is interpreted as involving an implied generic human agent, due to the presence of the impersonal *se* (see Section 2.4), the dative argument has to be dropped and the construction receives the impersonal habitual, rather than the modal necessity interpretation. On the other hand, if the dative participant in (44) is interpreted as the agent, the generic human agent is not implied and the modal necessity meaning arises.

Impersonal construction, habitual meaning

- (43) U Srbiji se (*Marku) igra fudbal.
In Serbia SE (*Mark.DAT) IMPERF.play.PRS.3.SG soccer.NOM.SG
'In Serbia one/people play soccer.'

Dative anticausative construction, modal necessity meaning

- (44) U Srbiji se Marku igra fudbal.
In Serbia SE Mark.DAT IMPERF.play.PRS.3.SG soccer.NOM.SG
'(When) in Serbia, Mark is in the mood to play soccer.'

Under the assumption that each thematic role can be assigned only once (the *Theta*-criterion, Chomsky, 1981), it follows that the dative participant in dative anticausatives with the agentive predicates bears the agent role, which is why it cannot cooccur with another agent.

Similarly, the dative participant in dative anticausatives with the accidental causative interpretation is perceived as the causer of the predicated event and differs from the nominative causer in the canonical transitive construction illustrated in (45) below primarily in that the latter is perceived as having control over the predicated event, while the former is not. However, the control interpretation of the canonical transitive in (45) can easily be overridden by adding the adverbial *slučajno* 'accidentally, as in (46), in which case the sentence becomes semantically equivalent to the dative anticausative provided in (47).

Canonical transitive (causative predicate)

(45) Marko je izgužvao knjigu.

Mark.NOM AUX PERF.wrinkle.PCP.MACS.SG. coffee.ACC.FEM.SG

‘Mark wrinkled the book.’

Canonical transitive (causative predicate)

(46) Marko je slučajno

Mark.NOM AUX accidentally

izgužvao knjigu.

PERF.wrinkle.PCP.MACS.SG.coffee.ACC.FEM.SG

‘Mark accidentally wrinkled the book.’

Dative anticausative (causative predicate)

(47) Marku se izgužvala knjiga.

Mark.DAT SE PERF.wrinkle.PCP.FEM.SG book.ACC.FEM.SG

‘Mark accidentally wrinkled the book.’

With this respect, Serbian is no different from many other languages in which intentional causers, with control over the event, and accidental causers, with no control over the event, are morphologically distinguished. This is illustrated using a Tagalog contrast between the neutral predicates indicating control (48) and the ability and the involuntary action (i.e., AIA) predicates indicating lack of control (49).

Tagalog, neutral predicate (Dell, 1983: 179)

- (48) Itinulak ni Ben ang bato.
 N-PERF-push GEN Ben NOM rock
 ‘Ben pushed the rock.’

Tagalog, accidental causative (Dell, 1983: 180)

- (49) Naitulak ni Ben ang bato.
 AIA-PERF-push GEN Ben NOM rock
 ‘Ben accidentally moved the rock by pushing it.’

It is important to note here that in addition to the accidental causative interpretation, Serbian dative anticausatives with causative predicates yield two more interpretations, i.e., that of the (negatively) affected participant and that of the possessor of the affected theme argument. For example, the sentence in (50) below can mean that the dative participant is (negatively) affected by the change of state denoted by the predicate (50a), that the dative participant is the possessor of the entity that undergoes the change of state (50b), and that the change of state occurred accidentally, as a result of an unintentional causation initiated by the dative participant (50c).

Dative anticausative construction with the causative predicate

(50) Marku se slomio prozor.

Mark.DAT SE PERF-break.MACS.SG window.NOM.MASC.SG

- a) 'Mark is (negatively) affected by the window breaking.'
- b) 'Mark's window broke.'
- c) 'Mark accidentally broke the window.'

However, the dative anticausative construction illustrated above seems to involve two different syntactic structures. Availability of two different structures is evidenced in (51) below which shows that, when the dative anticausative construction occurs with the oblique *from*-phrase identifying a causing participant, the dative participant (i.e., *Marku*) can be interpreted only as the affected entity (51a) or the possessor (51b), but not as the accidental causer (51c). This indicates that the structure which gives rise to the negatively affected meaning and the possessor meanings does not involve a causer argument, as it is compatible with the presence of another causing participant. The fact that the dative participant (i.e., *Marku*) in (51) cannot be interpreted as the accidental causer demonstrates that the accidental causative interpretation arises from a different syntactic structure than the negatively affected interpretation and the possessor interpretation – i.e., the one in which the dative participant is realized as the causer. This structure is therefore incompatible with the sentence in (51), which involves the oblique cause.⁸

⁸ The argument presented above is due to Kallulli (2006: 280), who uses it to demonstrate that in Albanian and German, the construction corresponding to the Serbian dative anticausative construction (which she refers to as the *dative unaccusative*) involves two different syntactic structures.

Dative anticausative construction with the *from* phrase

(51) Marku se slomio prozor od promaje.

Mark.DAT SE PERF-break.SG window.NOM.SG from draft

- a) 'Mark is negatively affected by the window breaking from the draft.'
- b) 'Mark's window broke from the draft.'
- c) *'Mark accidentally broke the window from the draft.'

The conclusion that the dative anticausatives in (50) and (51) above involve two different syntactic structures is additionally supported by the fact that the interpretation on which the dative participant is the (positively or negatively) affected entity can yield idiomatic expressions. This is illustrated in (52) and (53) below.

Dative anticausative construction with the positively affected interpretation

(52) Marku se otvaraju sva vrata.

Mark.DAT SE PERF-open.PRS.3.PL all door.NOM.PL

'All the circumstances are in Mark's favor.'

'Lit: All doors are opening for Mark.'

Dative anticausative construction with the negatively affected interpretation

(53) Marku su se srušili

Mark.DAT AUX.3PL SE PERF-fall.down.PART.MASC.PL

svi mostovi.

all bridges.NOM.PL

‘Mark lost all his hope.’

‘Lit: To Mark all the bridges fell down.’

It is a well known fact that only the internal arguments of the predicate, such as patients and beneficiaries, can be included in the idiomatic expression, while the external arguments cannot, since they are not part of the verb phrase (e.g., Marantz, 1984). Evidence presented in (52) and (53) therefore indicates that the dative participant in dative anticausatives with the affected interpretation is, indeed, the internal argument of the verb. This analysis is supported by the fact that some psychological predicates, such as *svidjati se* ‘to like’, can only occur lexicalized in this construction (54).

Dative anticausative construction, psychological predicate

(54) Marku se svidja ova muzika.

Mark.DAT SE like.PRS.3.SG this music.NOM.SG

‘Mark likes this music.’

This predicate therefore resembles the Class 3 *piacere* ‘please’ type identified in Belletti and Rizzi (1988) (55). According to Belletti and Rizzi, this type of psychological predicate is a dyadic unaccusative construction with two internal arguments.

Italian, psychological predicate (Belletti and Rizzi, 1986)

(55) A Gianni piace questo.

To Gianni pleases this.NOM

‘Gianni likes this.’

In contrast to this type of psychological predicates and dative anticausatives with the affected interpretation, dative anticausatives with the accidental causative interpretation do not give rise to idiomatic expressions, indicating that the dative participant in this construction is not the internal argument of the verb.

Summing up, Serbian dative anticausatives seem to involve two different syntactic structures. One which involves the external argument and gives rise to the modal necessity meaning and the accidental causative meaning, and one which involves two internal arguments and gives rise to the negatively affected meaning (including the possessor meaning). This conclusion is additionally supported by the fact that only those psychological verbs which are perceived as activities, such as *smejati se* ‘to laugh’, can yield the modal necessity interpretation (56).

Dative anticausative construction, psychological activity predicate

(56) Marku se smeje.

Mark.DAT SE laughPRS.3.SG

‘Mark is in the laughing mood.’

The conclusion that the dative participant occurs as the external argument of the verb in the dative anticausatives with the accidental causative and the modal necessity interpretation is a welcome one considering that the dative participant is interpreted as the agent and the causer, respectively. On the standard assumption that the agents are introduced as the external arguments of the light causative verb *v* which is associated with the agentive or a causative role (Kratzer, 1996) the data presented above receive a natural explanation.

2.5 Morpheme *se*

In addition to the dative argument, dative anticausatives involve another prominent element whose precise role in this construction is yet to be determined, i.e., the clitic *se*. In Serbian, as well as other Slavic languages, this morpheme can yield various interpretations, such as reflexive (57), middle (58), anticausative (59), passive (60), as well as impersonal with the arbitrary or generic agent (61).

Reflexive

(57) Marko se brije.

Mark.NOM SE IMPERF-shave.PRS.3.SG

‘Mark is shaving.’

Middle with an activity predicate

(58) Marko se proteže.

Mark.NOM SE IMPERF-stratch.PRS.3.SG

‘Mark is stretching.’

Anticausative

(59) Tanjir se slomio.

branch.NOM.MASC.SG SE PERF-break.MASC.SG

‘The plate broke.’

Passive

(60) Bicikl se popravlja.

bicycle.NOM SE IMPERF-repair.PRS.3.SG

‘The bicycle is being repaired.’

Impersonal

(61) U Srbiji se igra fudbal.

In Serbia SE IMPERF.play.PRS.3.SG soccer.NOM.SG

‘In Serbia one/people play soccer.’

In all these constructions the morpheme *se* seems to indicate something about the properties and the identity of the agent. For example, in reflexive and the middle constructions the morpheme *se* indicates coreference between the agent and the patient, and thereby also the affectedness of the agent, while in anticausative constructions *se* indicates a complete absence of the agent (see Chapters 4 and 7 for a proposal related to the anticausative morphology). On the other hand, in passive and impersonal constructions *se* indicates an implied agent whose reference is specific and recoverable from the context (passive), or has an arbitrary or a generic human reference (impersonal).

Due to the diversity of functions performed by this morpheme, its specific role and function in the dative anticausative construction is open to various interpretations. For example, Franks (1995) analyzes *se* as the passive morpheme which absorbs the accusative case and creates an implied external argument. Marušič and Žaucer (2006) analyze *se* as “the non-active morpheme” that reduces the external theta role by preventing the merger of the *v*P phrase and thereby also introduction of the external argument (following Kratzer, 1996). Kallulli (2006) proposes that *se* is the *non-active* morphology whose function is to suppress lexical features projected by the predicate, specifically the [+intentional] feature which, according to Kallulli, corresponds to the “true agency.” Finally, Rivero (2009) treats *se* as a kind of resumptive pronoun which

plays a role in the binding relation that links the dative argument with the arguments of the predicate (see Chapter 3 for further details about these proposals).

In this dissertation, the morpheme *se* in the dative anticausative construction is analyzed as the anticausative morpheme whose function is essentially similar to that in the anticausative construction illustrated in (59), namely to indicate lack of agency, specifically lack of agent control, due to the presence of another controller (see Chapter 4 and Chapter 7 for the supporting evidence and the specifics of this proposal).

2.6 Semantics

Dative anticausatives with causative predicates convey the meaning that the end result is at least in part different from the result that the dative participant, i.e., *Mark*, intended to achieve. This situation is interpreted as the accidental causation (62).⁹

Dative anticausative, the accidental causative interpretation

- (62) Marku su se slomile
Mark.DAT AUX.3.PL SE PERF.break.PCP.FEM.PL
naočare.
glasses.ACC.FEM.PL
'Mark accidentally broke the glasses.'

⁹ This definition of the accidental causative meaning is borrowed from Dell (1983).

In contrast, dative anticausatives with agentive predicates convey the meaning that the dative participant, i.e., *Mark*, has a need (63), desire (64), or disposition (65) to perform the predicated event. The specific interpretation of this modal meaning is determined by the semantics of the predicate (for a classification of modal meanings, see Chapter 5).

Modal necessity (need)

(63) Marku se piški.

Mark.DAT SE IMPERF.pee.PRS.3.SG

‘Mark needs to pee.’

Modal necessity (desire)

(64) Marku se pije kafa.

Mark.DAT SE IMPERF.drink.PRS.3.SG coffee.NOM.SG

‘Mark is craving coffee.’

Modal necessity (disposition)

(65) Marku se igra fudbal.

Mark.DAT SE IMPERF.play.PRS.3.SG soccer.NOM.SG

‘Mark was in the soccer-playing mood.’

In this dissertation, the three interpretations of need, desire, and disposition, illustrated in (63) through (65) above, are treated as emanating from the more general

meaning of necessity (following Bybee et al., 1994).¹⁰ In contrast, the ability meaning, which arises from the general meaning of possibility, does not obtain in Serbian dative anticausative construction (66).

Modal possibility (ability)

(66) Marku se čita.

Mark.DAT SE IMPERF.read.PRS.3.

a) *‘Mark can read/is able to read.’

b) ‘Mark is in the mood to read.’

The modal necessity meaning (i.e., need, desire, or disposition) is typically interpreted as arising due to some conditioning factors which are internal to the dative participant. Thus, example (63) indicates that Mark’s need to perform the event of urination is due to some internal conditioning factors related to human physiology. Similarly, Mark’s craving for coffee illustrated in (64) is interpreted as arising due to some internal conditioning factors, such as Mark’s habit of drinking coffee, or a sudden lack of energy. However, the source of the modal necessity meaning does not seem to be determined as either internal or external, as it can easily be overridden by the context

¹⁰ The close diachronic relationship between the meanings of need and desire (or wanting) has already been demonstrated in the literature. One piece of evidence comes from the etymology of the English verb *want*, which is a borrowing of an Old Norse verb meaning ‘to lack, or miss’ that subsequently developed the meaning of ‘need’, and only at the beginning of the 18th century came to be used to express ‘desire’ (Bybee et al., 1994: 178). The meaning of volition also seems to be closely related to these meanings. For example, the meaning of desire is commonly defined using the notion of volition. Thus, Bybee et al. (1994: 178) propose that desire concerns “the internal volitional conditions in the agent with respect to the predicate action.” Such a definition is based on evidence that expressions of desire can give rise to the *volitive* meaning. This is the case in the English *will* (from a desire source) which can express willingness, as in *I’ll help you* (Bybee et al., 1994: 178). In this dissertation, the meanings of need, desire, disposition, as well as volition, are therefore treated as arising from the single, more general necessity meaning.

(provided that the verb's semantics allows an alternative interpretation). For example, consider a situation in which Mark catches a smell of fresh coffee as he walks by a coffee shop and suddenly starts craving a cup of coffee. In this case, the conditioning factors creating Mark's craving to consume coffee involved in example (64) are external to Mark, i.e., the smell of fresh coffee coming from the coffee shop. A similar observation can be made for the example (65), in which Mark's disposition towards soccer-playing is interpreted as arising due to some internal factors, but could also be understood as prompted by some external source, such as, e.g., watching the World Cup on TV. I therefore conclude that the source of the modal necessity meaning in the dative anticausative construction is implied, and is typically interpreted as internal, although this interpretation can be overridden by contextual clues.

Finally, the modal necessity meaning which arises in the dative anticausative construction with agentive predicates does not entail actualization of the predicated event (i.e., it does not have *actuality entailment*, following Bhatt, 2000). The sentence in (67) below is therefore acceptable even when actualization of the event is denied.

Modal necessity, event actualization denied

- (67) Marku se jeo sladoled,
 Mark.DAT SE IMPERF.eat.PST.3.SG ice cream.NOM.SG
 ali ga nije jeo.
 but it.ACC NEG eat
 'Mark was craving ice cream, but he did not eat it.'

Lack of actuality entailment demonstrated in (67) above is as expected considering the fact that modal situations typically refer to non-actualized events (e.g., Palmer, 2001). However, as we will see in Chapter 6, presence vs. absence of actuality entailment does not seem to be the defining property of causative and modal meanings, and therefore has a minor significance for our discussion.

CHAPTER 3

PREVIOUS ANALYSES

The dative anticausative construction does not easily lend itself to a coherent analysis. The modal necessity meaning, with its opaque source of origin, has been particularly challenging in this regard. Modality of the dative anticausative construction has consequently received much more attention than the causative accidental meaning, which arises as the other interpretation in this construction (although, in my opinion, it is equally challenging to explain why a basically causative meaning arises in an anticausative environment). In this chapter, I will therefore focus on the analyses of dative anticausatives with the modal necessity interpretation. I will label this construction in the original way it was labeled by the respective author whose analysis I am presenting (i.e., the *involuntary state* construction, the *feel-like* construction, *etc.*). I will discuss the causative accidental interpretation only when a unifying analysis was proposed, as it is the case in Kallulli (2006).

I begin this chapter by presenting two analyses of the dative anticausative construction in which its modality is attributed to a phonologically null element, i.e., those proposed in Franks (1995), and Marušič and Žaucer (2006). I then discuss the analysis proposed in Kallulli (2006), which attributes modality of the dative anticausative construction to feature bundling, and creation of a new theta-role which is akin to that of the experiencer. Finally, I discuss the proposal put forward in Rivero (2009), according to which the modality of the dative anticausative construction stems from the imperfective aspectual operator. I provide criticism of each of these proposals and finally suggest that the syntactically based approaches cannot successfully account for the

modality of the dative anticausative construction which results from the fundamental semantic relationship between causation and modality. In other words, modality of the dative anticausative construction is essentially a conceptual phenomenon, and should therefore be treated at the level of the conceptual representations, which are presumably independently required, without placing the burden on the syntactic representation.

3.1 A phonologically null modal verb (Franks, 1995)

In his seminal work on Slavic morphosyntax, Franks (1995) proposed that the modality of the dative anticausative construction, which he refers to as the *dispositional reflexive* construction, derives from a phonologically null modal verb. Franks argues that this null modal is simply added “on top of the standard sentence structure” as an adjunct phrase, thus creating an extended monoclausal sentence structure. On this account, the dative argument of the dispositional reflexive construction is the external argument of the null modal which assigns the experiencer theta-role to it. From its sentence-external position, the dative argument controls the external (agent) argument of the main verb. This argument is syntactically realized as PRO due to the presence of the passive morpheme *se*.¹¹ Couched within the early Minimalist Program framework (Chomsky, 1992), the syntactic structure of the dispositional reflexive construction proposed by Franks can be simplified as follows (Franks, 1995: 368):¹²

¹¹ This analysis assumes a particular account of the passive according to which the external argument of the passivized verb is realized as PRO.

¹² Because the morpheme *se* is a clitic pronoun, its precise location in the proposed sentence structure is left open.

(68) [MP Dat NP_{exper} [M [IP [T [VP PRO_{agent} [V (NP)]]]]]]]

In short, on Frank's account, the null modal verb provides the origin for the dispositional meaning and assigns the experiencer theta-role to its argument. At the same time, PRO relates the external argument of the null modal with the external argument of the predicate verb, ensuring that the experiencer of the disposition and the agent of the predicated event have the same referent.

Frank's analysis crucially relies on the proposed control relation between the dative experiencer and the external argument of the verb. However, in the current version of the Minimalist Program passive constructions involve a deficient *vP* that has no external argument. On this version of his theoretical framework, Frank's analysis becomes untenable, since the external argument of the proposed null modal would remain unrelated to the main predicate. In Chapters 6 and 7, I present crosslinguistic evidence demonstrating that recourse to a null modal auxiliary to account for the modality of this construction is unnecessary.

3.2 A covert lexical psych-verb (Marušič and Žaucer, 2006)¹³

In contrast to the analysis proposed by Franks, Marušič and Žaucer (2006) argue that the meaning of the construction, which they refer to as the *feel-like* construction, arises from a covert lexical verb, which they dub FEEL-LIKE. This verb is similar to psychological verbs, and semantically groups with the *want*-type verbs (i.e.,

¹³ The analysis presented in this section is based primarily on the data from Slovenian, a South Slavic language closely related to Serbian, but pertains to other Slavic languages as well.

desire/volition predicates), although it can also express “an uncontrollable physiological state, i.e., drive or craving” (Marušič and Žaucer, 2006: 1146). Because the feel-like construction is argued to involve two lexical verbs, it follows that its syntactic structure is biclausal, with the null FEEL-LIKE verb in the matrix clause, and the predicate verb in the embedded clause. Marušič and Žaucer (2006) therefore claim that the feel-like construction is parallel to the infinitival construction with an overt lexical verb expressing desire in its matrix clause. Thus, the feel-like construction in (69) and the infinitival construction in (70) are both biclausal and differ primarily in that the latter involves an overt psych-verb carrying the desiderative/volitive meaning, while this verb in the feel-like construction is covert (Marušič and Žaucer, 2006: 1095).

Slovenian (Marušič and Žaucer, 2006: 1095)

Feel-like construction (covert FEEL-LIKE predicate in the matrix clause):

(69) Gabru se pleše.

Gaber.DAT SE IMPERF.dance.PRS.3.SG

‘Gaber feels like dancing.’

Slovenian (Marušič and Žaucer, 2006: 1095)

Infinitival construction (overt ‘feel-like’ predicate in the matrix clause):

(70) Gabru se lušta plesati.

Gaber.DAT SE desire.PRS.3.SG IMPERF.dance.INF

‘Gaber feels like dancing.’

The biclausal analysis of the feel-like construction proposed by Marušič and Žaucer is inspired by the biclausal analysis of *intentional* transitive verbs of the type illustrated in (71) below (e.g., Larson et al., 1997). Although superficially monoclausal, this construction is argued to involve a covert lexical verb HAVE inside a concealed complement clause.¹⁴ On this view, the intentional transitive verb construction in (71) is parallel to the biclausal construction in (72) with an overt lexical verb *have* in its complement clause (Larsson et al., 1997).

English (Marušič and Žaucer, 2006: 1095)

Intentional transitive verb (covert HAVE predicate in the complement clause)

(71) Max will need a bicycle tomorrow.

English (Marušič and Žaucer, 2006: 1095)

Complement clause construction (overt 'have' predicate in the complement clause)

(72) Max will need to have a bicycle tomorrow.

The unifying biclausal analysis of intentional transitive verbs (71) and complement clause constructions (72) is based on evidence from modifications with temporal adverbials. It is well known that biclausal structures bring about ambiguity in interpretation of temporal adverbial modifications. For example, the adverb *tomorrow* in the biclausal construction in (73) can modify either the 'needing' or the 'having' predicate. Example (73) can therefore mean that Max's need to have the bicycle at some

¹⁴ This analysis implements the idea of a concealed clausal complement proposed in Ross (1976).

unspecified point in the future will arise tomorrow. On the second interpretation, Max's need to have the bicycle tomorrow will arise at some unspecified point in time in the future. Similar interpretational ambiguity has been observed in temporal adverbial modifications of intentional transitive verbs (e.g., Ross, 1976; Partee, 1974; McCawley, 1979; Dowty, 1979; Larson et al., 1997).

In addition, as pointed out in McCawley (1979), both the complement clause construction and the intentional transitive verb construction allow modification with two temporal adverbs referring to two distinct points in time. This is illustrated in (74) and (75). This property is commonly taken to point to a biclausal syntactic structure. In contrast, monoclausal constructions, such as the one illustrated in (76), do not allow a double adverbial modification with conflicting time reference.

English complement clause construction, biclausal (M&Ž, 2006: 1097)

(74) Tomorrow Jim will want to have a new bike in two weeks.

English intentional transitive verb construction, biclausal (M&Ž, 2006: 1097)

(75) Tomorrow Jim will want a new bike in two weeks.

English, monoclausal construction (Marušič and Žaucer, 2006: 1097)

(76) *Tomorrow Jim will play basketball in two weeks.

According to Marušič and Žaucer, temporal adverbial modification of the Slovenian feel-like construction demonstrates scopal ambiguity similar to that which

occurs in biclausal sentence structures. For instance, adverb *včeraj* ‘yesterday’ in the Slovenian example in (77) can be interpreted as modifying either the disposition towards the event of hiking, or the hiking event itself.

Slovenian feel-like construction, temporal modification (M& Ž, 2006: 1098)

(77) Črtu se je včeraj slo na Rž.

Črt.DAT SE AUX yesterday go. PST.3.SG to Rž

a) ‘Črt felt like [climbing Mt. Rž yesterday].’

b) ‘Yesterday, Črt felt like [climbing Mt. Rž].’

The feel-like construction in Slovenian even seems to allow modification with double temporal adverbs with conflicting reference points. Thus, adverb *včeraj* ‘yesterday’ in example (78) below specifies the time of the disposition, while adverb *jutri* ‘tomorrow’ specifies the time of the predicated event.¹⁵

Slovenian feel-like construction, double temporal modification (M& Ž, 2006: 1098)

(78) Včeraj se mi ni šlo jutri domov.

yesterday SE I.DAT AUX.NEG.PST go tomorrow home

‘Yesterday, I didn’t feel like going home tomorrow.’

¹⁵ These data suggest that the Slovenian feel-like construction demonstrates much more freedom in interpretation of temporal adverbial modifications than Serbian. The ambiguity illustrated in (35) for Slovenian is very difficult, if not impossible to get in Serbian. Similarly, modification with two adverbs is banned in Serbian (e.g. **Juce mi se nije islo sutra kuci* ‘Yesterday, I didn’t feel like going home tomorrow’). This distinction between the two languages with this respect was correctly recognized in Marusic and Zaucer as well (2006).

As Marušič and Žaucer point out, intuitively, one event can only be ascribed to one time. Assuming Larson's (1988) treatment of adverbs as adverbials which occur inside verb phrases, Marušič and Žaucer argue that the occurrence of double non-agreeing adverbials indicates the existence of two distinct verb phrases, and therefore a biclausal structure (Marušič and Žaucer, 2006: 1099). On this view then, the feel-like construction is similar to intentional transitive verbs discussed above. Both constructions are superficially monoclausal, yet involve an additional verb phrase introduced by a phonologically unexpressed lexical verb. Putting the semantics of the null verb aside, on this analysis, the main difference between these two constructions lies in the location of their null verb. Thus, the covert verb HAVE is located in the complement predicate of the intentional transitive construction. In contrast, the covert verb FEEL-LIKE is located in the matrix predicate of the feel-like construction.

However, the evidence from the adverbial modifications is problematic, since the occurrence of two non-agreeing adverbs is, in fact, possible even in more common constructions. This point has already been brought up by e.g., Vetter (1973), Prince (1974), and Dowty (1979) with respect to English constructions with future readings involving simple present or progressive tense (79) and Rivero (2009: 157, respectively). These constructions, commonly referred to as *futurates*, will be discussed extensively later in this Chapter, as they incidentally represent the corner-stone of the analysis proposed in Rivero (2009).

English futurate construction (Marušič and Žaucer, 2006: 1100)

- (79) Today you are out of the hospital in a week (but if something goes wrong during your operation tomorrow, then you might have to stay here longer).

English futurate construction (Marušič and Žaucer, 2006: 1100)

- (80) Yesterday morning I was leaving tomorrow on the Midnight Special.

Given that the structures in (79) and (80) are commonly treated as monoclausal,¹⁶ modification of the feel-like construction by two non-agreeing temporal adverbs illustrated in (78) turns out to provide less than a solid support for a biclausal analysis. In order to maintain their proposal, Marušič and Žaucer demonstrate that the Slovenian involuntary state construction allows even modification with three non-agreeing temporal adverbs, as in (81) (Marušič and Žaucer, 2006: 1101).

¹⁶ The exception seems to be Prince (1974), who proposed that this type of structure involves a concealed matrix predicate “it is the case that.” For example, (36) should therefore be understood as *Today ~~it is the case that~~ you are out of the hospital in a week.*

Slovenian feel-like construction, triple temporal modification (M&Ž, 2006: 1101)

- (81) Zdajle se mi pa jutri res ne bo šlo v petek
now SE I.DAT PTCL tomorrow truly NEG AUX.FUT go on Friday
domov.
home
'Now it is the case/it seems that tomorrow I won't feel like going home on
Friday.'

Example (81) therefore seems to be crucial for the biclausal analysis of the feel-like construction. However, as Marušič and Žaucer themselves inform us, native speaker judgments of this example are “potentially disputable” (Marušič and Žaucer, 2006).

Setting aside the problematic example with the triple-adverbial modification, the feel-like construction in Slovenian does seem to allow a double non-agreeing modification. Although this type of temporal modification is not possible in Serbian (both according to the Serbian informants consulted by Marušič and Žaucer, and according to my own native speaker intuition), it does seem to be possible with the corresponding construction in Bulgarian (Rivero, 2009). As the matter of fact, it is exactly this type of evidence that enables Rivero (2009) to develop her monoclausal analysis of the *involuntary state* construction based on Copley's (2002) modal analysis of the English *futurates* exemplified in (79) and (80) above. This analysis will be presented in greater detail in Section 3.4.

Before concluding this section, let us consider the particular syntactic analysis proposed by Marušič and Žaucer. According to this analysis, the morpheme *se* is

crucially the same non-active morpheme that occurs with other unaccusatives, except that here it co-occurs with the phonologically null FEEL-LIKE verb in the matrix predicate of a biclausal structure. Couching their analysis within the Minimalist Program framework (Chomsky, 2001), Marušič and Žaucer proposed the non-active *se* is located in the quirky phrase *vQP* (following Boeckx, 2003), where it reduces the external theta-role of the predicate by preventing the external argument –introducing phrase *vP* from merging into the structure. As a result, the dative argument merges in [Spec, *vQP*], where it receives the experience theta-role from the FEEL-LIKE predicate.

All the technicalities of this particular proposal aside, this analysis crucially depends on the possibility of the clitic morpheme *se* to assume two different positions in the sentence. Marušič and Žaucer demonstrate this ability of the clitic *se* using the paraphrase of the feel-like construction with the overt lexical ‘feel-like’ verb, as illustrated in (82) below (Marušič and Žaucer, 2006).

Slovenian feel-like construction, double position of the clitic *se* (M& Ž, 2006)

- (82) Zdele se Petru ful hočjo jest (?se)
 now SE Peter.DAT so feel-like.3P.PL.FEM eat.INF SE
 jagode.
 strawberries.FEM.PL.NOM
 ‘Right now, Peter really feels like eating strawberries.’

Marušič and Žaucer take this evidence as an indicator that the feel-like construction involves two morphemes *se*, one of which they claim is not pronounced due

to haplology. The result of this reasoning is therefore as desired, since the feel-like construction with the covert FEEL-LIKE verb occurs with only one morpheme *se* (e.g., example (69) above). The proposed syntactic structure of the feel-like construction is couched within the Minimalist Program (Chomsky, 2000; 2001). A simplified version of the proposed biclausal structure is given in (83) below.

(83) [CP [TP [vP1 NP_{DAT} [v' *se* [VP COVERT FEEL-LIKE ... [vP2... [v' *se* [VP V NP_{NOM}]]]]]]

However, there is a serious problem with this analysis. Namely, as demonstrated in (82) above, the double-position of the morpheme *se* is of questionable grammaticality in Slovenian (as indicated by the question mark), and, as it turns out, completely impossible in Serbian (84).

Serbian feel-like construction, double position of the clitic *se*

(84) Sada se Petru tako hoće jesti (*se)
 now SE Peter.DAT so feel-like.3P.PL.FEM eat.INF SE
 jagode.
 strawberries.FEM.PL.NOM
 'Right now, Peter really feels like eating strawberries.'

Since the biclausal syntactic analysis presented in (83) above crucially depends on the double-position of the morpheme *se* – something that is utterly unacceptable in Serbian – and since this analysis pertains to Serbian (and other Slavic languages in which

the involuntary state construction syntactically patterns alike), the analysis of Marušič and Žaucer (2006) does not seem to be firmly grounded in the language data. If we further recall that the evidence provided by the double non-agreeing adverbial modifications turned out to be dubious, the bi-clausal analysis proposed by Marušič and Žaucer is left on weak ground.

3.3 Feature-bundling (Kallulli, 2006)

As previously mentioned in Chapter 1, Albanian makes use of a construction similar to the Serbian dative anticausative construction. This construction, which Kallulli (2006) refers to as the *dative unaccusative*, gives rise to the ‘involuntary state’ interpretation (85), which means “to be in a certain state that is not volitionally brought about by the dative participant” (Kallulli, 2006: 295, fn. 2). In addition to the involuntary state interpretation, dative unaccusatives in Albanian also give rise to the interpretation in which the dative participant is an accidental causer (86).¹⁷

Albanian (Kallulli, 2006: 273-274)

(85) Benit i ha-hej një mollë.

Ben.DAT DAT.CL.3S eat-NACT.P.IMP.3S an apple.NOM

‘Ben felt like eating an apple’ or: ‘Ben was apple-hungry,’

¹⁷ The example in (43) can also receive the possessor interpretation (i.e., Ben’s window broke) and the negatively affected interpretation (i.e., Ben being negatively affected by the event of window-breaking). However, Kallulli shows that these two interpretations arise from a different morphosyntactic structure, and are therefore not relevant for her discussion (Kallulli, 2006: 280).

Albanian (Kallulli, 2006: 273-274)

(86) Benit i-u thye dritarja.

Ben.DAT DAT.CL.3S- NACT break.AOR.3S window.NOM

'Ben unintentionally (accidentally) broke the window.'

Comparing dative unaccusatives in Albanian and South Slavic (Serbian and Bulgarian), Kallulli (2006) points out that they crucially involve the *non-active* morphology in Albanian, which corresponds to the morpheme *se* in Slavic.¹⁸ Although the construction occurs with two obligatory arguments and is therefore dyadic, due to the presence of the non-active morphology it displays properties of an unaccusative predicate and is aspectually stative. She therefore concludes that the dative unaccusative construction is non-agentive, as the dative participant lacks control over the event (see Kallulli, 2006: 273-276).

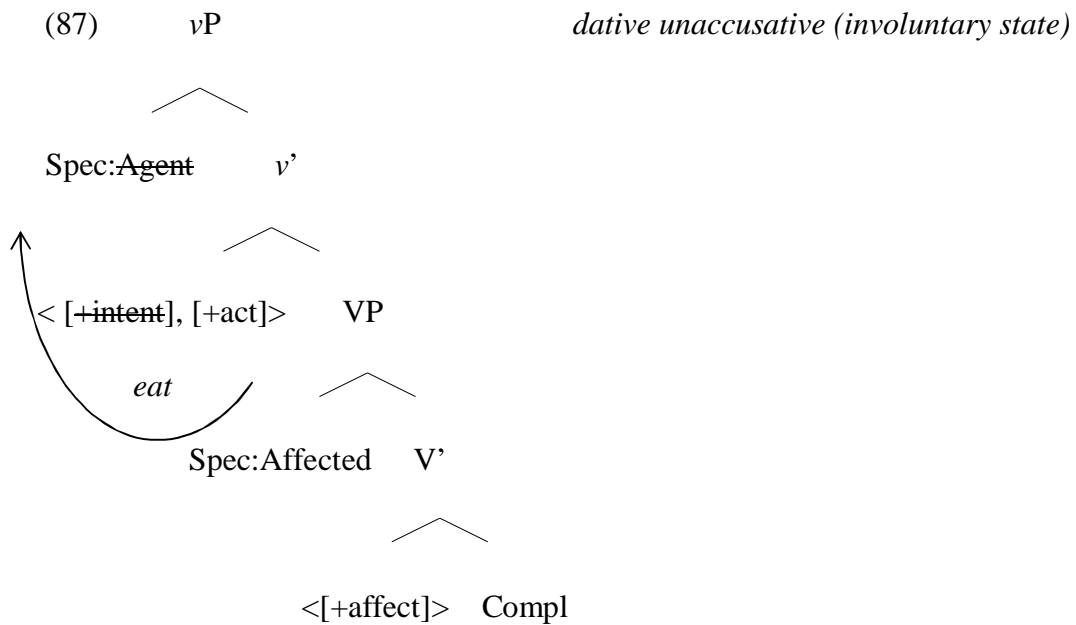
According to Kallulli, Albanian dative unaccusatives with the involuntary state and the unintentional causer interpretation share the same syntactic structure, and the interpretational differences which they exhibit result from the differences in the lexical semantics of the predicate. Kallulli therefore proposes a unifying feature-based account of the dative unaccusative construction to explain the source of origin of the two interpretations, as well as their shared syntactic structure. In its essence, Kallulli proposes that the non-active morphology operates on the lexical semantic features projected by the verb. This account crucially assumes that the semantically causative predicates project a [+cause] feature, while the activity predicates project [+act] feature in the little *v* (i.e., the

¹⁸ Albanian (similar to Greek) has two distinct conjugational paradigms, active vs. non-active, which roughly correspond to the unergative/unaccusative distinction. The unaccusative category includes passive, lexical reflexive, middle, and deponent predicates (Kallulli, 2006: 295, fn. 6).

head introducing the external argument, following Kratzer, 1996). Moreover, both types of predicate can project an additional [+intent] feature which corresponds to the “true, intentional agency” and is claimed to be relevant for the syntactic computation. Only intentional external arguments are agents, while nonintentional ones are either actors or causers, depending on the feature content of *v* projection of the predicate. Thus, the sentence *Anna screamed* is ambiguous between the agentive interpretation, on which *Anna* is the agent who intends her action, and the nonagentive interpretation, on which *Anna* is the actor who does not intend her screaming activity. Similarly, the sentence *Anna broke the window* is ambiguous between the agentive interpretation, on which *Anna* is the agent who intentionally caused the window to break, and the nonagentive interpretation, on which *Anna* is the causer who has no intention of the window-breaking. Kallulli further claims that the non-active morphology suppresses the first feature in a predicate structure. This feature suppression operates in the syntax and in a purely linear fashion, blindly ignoring semantic context of the element that it affects (Kallulli, 2006: 289).

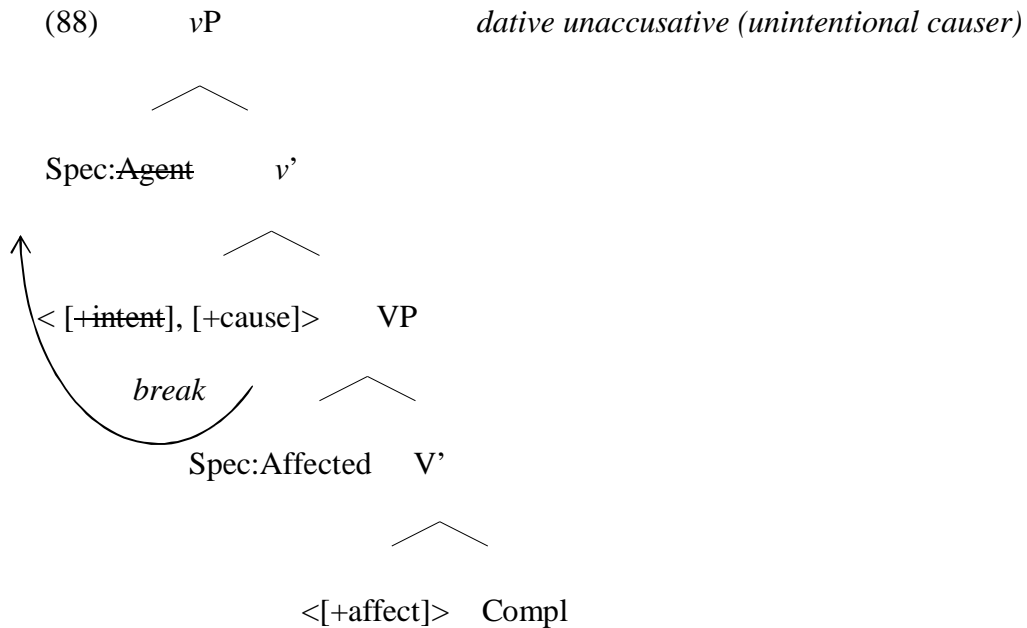
With respect to the involuntary state interpretation, Kallulli proposes that it is derived from agentive activities, which project [+intent] [+act] features, through suppression of their first feature. This operation eliminates the agent argument from further computation. However, in order for the computation to converge, the remaining [+act] feature on *v* also needs to be licensed. This requirement triggers movement of the dative argument from its merging [Spec, VP] position into [Spec, *v*P]. On the assumption that this argument was originally licensed by the feature [+affected] on V (the notion affected is to be understood as similar to benefactive), movement of the dative NP into

[Spec, vP] results in bundling of [+affected] and [+actor] feature, which creates a new theta role of the *affected actor*. The new theta role is, metaphorically speaking, close to the experience role, which is how the dative participant is interpreted. The proposed structure for dative unaccusatives with the involuntary state interpretation is provided in (87) below.



The unintentional causer interpretation is proposed to derive from the agentive causatives, which project [+intent], [+cause] features, through suppression of their first feature, i.e., [+intent]. Due to the feature suppression, the external argument is no longer visible for a further computation. However, in order for the computation to converge, the remaining [+cause] feature on ν needs to be licensed by another argument moving into the external argument position. This requirement triggers movement of the dative argument from its merging [Spec, VP] position into [Spec, ν P]. On the assumption that this argument was originally licensed by the feature [+affected] on V, we can explain

why this argument can also receive the affected reading, if favored by the context. The proposed structure for dative unaccusatives with the unintentional causer interpretation is given in (88) below.



As we will see shortly, the account which I will propose in Chapter 7 shares some similarities with the one described above. To anticipate, similar to Kallulli, I will claim that the dative anticausative construction in Serbian has a standard monoclausal syntactic structure. Furthermore, I will also claim that dative anticausatives are dyadic anticausative structures which involve the agent argument, but are nevertheless semantically anticausative due to the presence of the anticausative morphology. This is a non-standard situation because, as Kallulli puts it, “this dyadic sentence is in a way transitive, in spite of it being unaccusative” (Kallulli, 2006: 295, fn. 7). Similar to Kallulli, I will therefore argue that even constructions which are semantically

anticausative (unaccusative) may occur with the external argument. In other words, lack of the semantic properties of the prototypical agent (i.e., lack of agent control) does not automatically eliminate presence of the external argument. This proposal crucially assumes that the agent theta role is a cluster of properties (Dowty, 1979), and that the agent argument can therefore be realized as the external argument even when it lacks control over the predicated event (see Chapter 4 and Chapter 7 for a detailed proposal about the interaction between the anticausative semantics and the agent).

Another point of agreement with Kallulli's analysis is her conclusion that the dative participant lacks control over the event. Initially, at least, it seems that Kallulli relates the overall non-agentiveness of the dative unaccusative construction with this notion. However, after the initial mention of control, Kallulli builds her analysis around the notion of intentionality, which for her means "the true agency." In contrast, the analysis which I propose puts weight on the notion of control.

The remaining parts of the two analyses, especially the part deriving the two interpretations of the dative anticausative construction, are unrelated. For example, Kallulli's proposal crucially relies on the assumption that the feature suppression induced by the non-active morphology operates in a linear fashion, suppressing the correct feature, namely [+intent]. Without this assumption, the feature bundling and the creation of the new theta-role would not come out as desired, in which case the involuntary state interpretation and the unintentional causer interpretation would not obtain. Moreover, in contrast to Kallulli, who uses the experiencer theta role as a metaphorical approximation of the involuntary state meaning, I argue for a principled association of this meaning with the concept of CAUSE and the notion of control. I show that this approach provides a

unifying account of modality which arises in anticausative constructions, such as, e.g., dative anticausatives in Serbian and dative unaccusatives in Albanian, as well as in causative constructions, such as causatives in Finnish and Italian, which do not involve the non-active morphology that could perform the feature suppression operation.

Nevertheless, the analysis proposed by Kallulli is closest in spirit to the analysis of the dative anticausative construction which I propose in Chapter 7. Similar to Kallulli, I will argue that the absence of the agentive properties – on my analysis, it is control – resulting from the anticausative (i.e., non-active) morphology, is crucial for the both meanings.

3.4 Imperfective aspectual operator (Rivero, 2009)

Rivero's analysis of the modality in the dative anticausative construction, which she refers to as the involuntary state construction, builds on Copley's (2002) modal analysis of a seemingly unrelated phenomenon of *futurates*. As we will see shortly, a certain aspect of the proposal which I put forward in this dissertation also draws its inspiration from the ideas developed by Copley. I therefore begin by presenting her analysis of English *futurates* in greater detail, and then discuss Rivero's implementation of these ideas to the analysis of the involuntary state construction.

3.4.1 Modality in *futurates* (Copley, 2002)

As already mentioned, *futurates* are sentences which convey that a future-oriented event is planned or scheduled to happen even though they use the present tense morphology. Thus, *futurates* illustrated below occur in the progressive form

(‘progressive *futurates*’) (89), or use a simple form of the verb, i.e., form that has no morphology other than the agreement (‘simple *futurates*’) (90).

Progressive *futurate* (Copley, 2002: 38)

(89) The Red Sox are playing the Yankees tomorrow.

Simple *futurate* (Copley, 2002: 38)

(90) The Red Sox play the Yankees tomorrow.

Copley argues that the meaning of plan, which is involved in the denotation of the *futurates*, can be reduced to more familiar modal concepts of ability and desire (Copley, 2002: 38-39). Indeed, our basic intuitions about plans tell us that:

- (91) a) A plan is made by an animate entity that has a desire to see that the plan is realized.
- b) The entity has the ability to see that the plan is realized.

The entity making a plan does not have to be the same as the subject of the sentence. For example, when we say that the *Red Sox are playing the Yankees tomorrow*, we know that it is Major League Baseball, rather than the Red Sox, that is responsible for making the plan. Copley refers to this entity as a *director*. Our intuitions about plans stated in a. and b. above tell us that a director of an event has two important properties. First, a director has a desire for the event to happen, and is therefore committed to it (this

property roughly corresponds to intentionality). This part of the meaning tells us that there is a plan for an event to happen. Second, a director has the ability to ensure that the event happens. This part of the meaning provides confidence that the plan will, in fact, be realized. Copley therefore argues that *futurates* assert that the director is committed to the event happening, and presuppose that the director has the ability to ensure that the event happens. Together, they entail that the event will happen, i.e., that the plan will be realized (Copley, 2002: 43).

- (92) a. Assertion: The director is committed to the event happening.
- b. Presupposition: The director has the ability to ensure that the event happens

Copley further points out that the director can also be inanimate, in which case the event happens not due to the desires of the director, but rather due to some “law-like properties of the world that are inclined to remain true, all else being equal” (Copley, 2002: 27). Examples in (93) illustrate *futurates* with an animate director. In these cases, the event occurs due to desires of the director. Examples in (94) illustrate *futurates* with an inanimate director. In these cases, the event occurs due to the law-like properties of the world. What examples in (93) and (94) have in common is that there has to be someone (i.e., an animate director) or something (i.e., an inanimate director) that controls the event realization (Copley, 2002: 27).

Futurates with an animate director (Copley, 2002: 54)

- (93) a) The Red Sox are playing the Yankees tomorrow.
b) The Red Sox play the Yankees tomorrow.

Futurates with an inanimate director (Copley, 2002: 54)

- (94) a) ?The sun is rising tomorrow at 5:13.
b) The sun rises tomorrow at 5:13.

According to Copley, the modality of the meaning of plan stems from the aspectual operators. In progressive *futurates*, such as the ones illustrated in (93a) and (94a), the modality is contributed by the progressive aspectual operator (PROG). In simple *futurates*, such the ones illustrated in (93b) and (94b), the modality is contributed by the generic aspectual operator (GEN) (Copley, 2002: 27). Copley therefore argues that *futurates* are essentially special cases of progressives and generics with which they share similar semantics (Copley, 2002: 74). We can therefore say that the modality of *futurates* is “hiding in the plain sight,” as it stems from the modality in progressive and generic aspectual-modal operators (Copley, 2002: 31, fn. 4).

However, in contrast to their non-futurate readings, *futurates* of both kinds require an additional future temporal specification in order to receive their futurate reading. This additional temporal specification refers to the future point in time at which the denoted event is planned to occur. It is therefore a necessary part of the futurate semantics, regardless of whether a *futurate* construction involves an overtly specified temporal adverbial or not (Copley, 2002: 53). If this temporal specification is expressed

overtly, the temporal adverbial appears in the clause-final position. This is illustrated in (95) below.

Modification with a low temporal adverbial (Copley, 2002: 53)

- (95) a) Joe leaves tomorrow.
b) Joe is watching TV tonight.

In addition to the reference to a future point in time at which an event is planned to occur, the semantics of *futurates* also makes reference to the point in time at which a plan is asserted to hold. The reference time of a plan is specified by tense. Thus, in (95a), while the event of Joe leaving is scheduled to occur tomorrow, the plan for him to leave is asserted to exist at the moment of speaking. The same goes for (95b). While the event of Joe watching TV is planned to occur tonight, the plan for him to do so is asserted to exist at the present moment of speaking.

Moreover, in addition to tense, the time of the plan, or its duration, can be further specified by a “high” temporal adverbial, i.e., adverbial that appears in the clause-initial position. Thus, the utterance in (96) conveys that at some point in the past, which is specified as *yesterday*, a plan existed for the event of Red Sox playing the Yankees to occur tomorrow. Similarly, the utterance in (97) conveys that at some time in the past, for a period of two weeks, there was a plan for the Red Sox to play the Yankees today. In both utterances, the initial plan no longer holds (Copley, 2002: 31 and 59).

Modification with a high temporal adverbial (Copley, 2002: 31; 59)

(96) Yesterday, the Red Sox were playing the Yankees tomorrow.

(97) For two weeks, the Red Sox were playing the Yankees today.

Because the semantics of *futurates* makes reference to two distinct points in time (i.e., the time of the plan, and the time when the event is scheduled to occur), simultaneous modification by two non-agreeing temporal adverbials with conflicting reference points is possible. As demonstrated in (96) and (97) above, the conflicting adverbials occupy two different positions, each associated with the particular time. The high adverbial is associated with the time of the plan, while the low adverbial is associated with the time when the event is planned to occur. On this view, the phenomenon of a double-adverbial modification is due to the difference in scope which arises from the difference between the adverbials' respective positions. As demonstrated by Copley, the lower adverbial scopes over the verb phrase, and therefore modifies the time of the event. On the other hand, the higher adverbial scopes over the entire structure, and therefore modifies the time of the plan. *Futurates* are consequently analyzed as structurally monoclausal.¹⁹

Copley's modal analysis of *futurates*, according to which the meaning of plan can be reduced to more basic modal meanings of ability and desire, which can be attributed

¹⁹ Recall that Marušič and Žaucer (2006) argued that the *feel-like* construction in Slovenian also allows a double-adverbial modification, and is consequently biclausal (section 3.2). The logic of their argument was that each event can be associated with only one time. If a structure allows double temporal modification, it follows that it involves two events. Because events are introduced by verb phrases, as it is widely accepted, it follows that the *feel-like* construction involves two verb phrases, and is therefore biclausal.

either to the subject or to a syntactically unexpressed ‘director’, bears significance on our discussion of modality, and its relation to causation. As we will see shortly, especially significant is her notion of the ‘director’, which corresponds to my ‘controller’. Recall that in order to demonstrate the presence of modality in *futurate* constructions, Copley mainly discusses sentences in which the director is not the same as the subject, as in, e.g., *The Red Sox are playing the Yankees tomorrow*, where the director is Major League Baseball. The desire and the ability to ensure that the event of the ‘Red Sox playing the Yankees tomorrow’ occurs are attributed to the director (i.e., Major League Baseball), while the Red Sox are merely the performers of the event. Especially illuminating are Copley’s examples showing that even ongoing progressive constructions that do not express the meaning of plan may involve an implied director different from the subject. For example, if the sentences in (98) (a) and (b) below are uttered in the same context, *Jenny*, who is a possible animate director, is not responsible for her drawing an oval, nor does she have a desire to do so.

Ongoing progressives, an implied inanimate director (Copley, 2002: 63)

- (98) a) Jenny thinks she is drawing a circle.
b) She is actually drawing an oval.

The conclusion is, therefore, that the situation in which the director is different from the subject is not confined to the *futurate* construction. Indeed, evidence from causative and anticausative constructions, which I discuss in Chapter 6 and Chapter 7, all involves this situation. As the matter of fact, it is exactly the presence of the director

(read: controller which is distinguishable from the agent), and the causal relation linking the two, that will be claimed to give rise to the modal and causative meanings.

In the following section I present the most recent analysis of the dative anticausative construction, proposed in Rivero (2009). Rivero similarly recognized the importance of Copley's notion of the 'director' for the analysis of the dative anticausative construction. However, in contrast to the analysis proposed in this dissertation, Rivero also incorporates Copley's proposal that the modality in *futurates* stems from the aspectual operators (PROG) and (GEN) into her analysis of the dative anticausative construction. Rivero's analysis of this construction is presented in the following section.

3.4.2 Modality in the involuntary state construction (Rivero, 2009)

Based on the ability of the *involuntary state* construction in South Slavic to be modified with temporal adverbs with the conflicting temporal references (see Section 3.2), Rivero concludes that in this respect, the *involuntary state* construction in South Slavic is similar to English *futurates*, which also allow this type of modification. Rivero further observed that these two constructions also have semantic similarities in that *futurates* express the meaning of plan, while the involuntary state construction expresses desires and dispositions. Building on Copley's (2002) modal analysis of *futurates*, Rivero consequently argues that the basic modal meaning of the involuntary state construction stems from the imperfective aspectual operator (IMP^{OP}). This operator is similar to the progressive aspectual operator (PROG) which occurs in English progressive *futurates* discussed above. Both IMP^{OP} and PROG operator are manifestations of viewpoint aspect

(in terms of Smith, 1991), i.e., grammatical or inflectional aspect, rather than lexical aspect, i.e., *Aktionsart*. Due to the presence of the aspectual operator (PROG or IMP^{OP}, respectively) both constructions involve the meaning of desire (i.e., *bouletic* modality) in their semantics, which yields intentionality assertion. However, they differ in their specific modal meaning or “modal flavor.” Thus, English *futurates* denote plans, presumably because they presuppose that there is someone or something that can control the event, i.e., ensure that the event happens. This entity, labeled as director, is either supplied by context or encoded syntactically as the nominative subject (Copley, 2002). In contrast, the involuntary state construction denotes dispositions or desires, rather than plans. Rivero argues that this difference in modal flavor between *futurates* and the involuntary state construction arises due to the dative case on the logical subject of the latter construction. Specifically, the entity marked by the dative case lacks control by virtue of its case marking, and therefore does not qualify as a director. Because the involuntary state construction has no director, its semantics does not presuppose that there is an entity that can see to that the intended event happens. What we are left with, therefore, is the *bouletic* modality, which is why the involuntary state construction denotes dispositions or desires (Rivero, 2009). Sentences (50) and (51) below exemplify this distinction.

English *futurate* (Copley, 2002: 41)

director presupposition = plan

(99) We’re seeing Scooby Doo tomorrow.

Slovenian involuntary state (Rivero, 2009: 152)

no director presupposition = disposition, desire

(100) Janezu se spi.

Janez.DAT SE sleep.PRES.3.SG

‘John is in a sleeping mood/is sleepy/feels like sleeping.’

As already mentioned, the dative-marked participant is the logical subject of the involuntary state construction. Were the event actualized, it would have been the entity performing the action. However, even though Rivero refers to the dative-marked noun phrase as the oblique subject, she argues that this constituent is not the external argument of the verb, but rather an oblique constituent introduced by a “high applicative phrase” roughly in the sense of Pylkänen (2002). This high applicative phrase is syntactically located above the temporal-aspectual complex, in the topic domain.²⁰ The dative noun phrase is the formal topic of the construction, identifying the person whose dispositions or desires are asserted by the denotation of the involuntary state construction. Even though it lacks control, and therefore does not qualify as a director, presence of the dative participant prevents inclusion of a contextually identified director, and thereby also precludes the modal meaning of plan. Presence of the high applicative dative is therefore crucial for the semantic difference between English *futurates* and the involuntary state construction (Rivero, 2009: 167).

²⁰ Pylkänen (2002) argues that the new arguments are introduced into the syntactic structure by means of applicative heads, which can have zero or overt morphological realization. Based on her crosslinguistic study of applicative constructions, Pylkänen identifies two types of applicative structures: low applicatives, which relate a new participant to the direct object, and high applicatives, which relate a new participant to the event. The low applicative phrase is therefore part of the verb phrase, while the high applicative phrase is therefore located between the projection introducing the external argument on one side, and the verb phrase on the other. However, Rivero’s high applicative phrase is located above the tense projection, which makes it typologically odd.

The dative nominal in the high applicative phrase binds the external argument of a transitive verb, or the sole argument of an intransitive verb. Which exact argument is bound by the dative nominal is signaled by the reflexive *se*, which may stand for a “nominative resumptive pronoun, or a (caseless) variable” (Rivero, 2009: 154) (for more details, see Rivero and Sheppard, 2003).²¹

Couched within the theoretical framework of the Minimalist Program (Chomsky, 1995; 2001), the specific syntactic structure proposed for the involuntary state construction is provided in (101) (Rivero, 2009: 152).

(101) [APPLP NP_{DAT} [APPL' APPL [TP Tense [ASPP IMP^{OP} [_{VP} V VP]]]]]

Summing up, Rivero argues that the modal meaning of the involuntary state construction arises due to a combination of two properties: Case (the dative), and the Viewpoint aspect (the imperfective operator) (Rivero, 2009: 170). Due to the presence of the imperfective operator, the involuntary state construction involves *bouletic* modality, same as the English *futurates*. However, while *futurates* also involve a director (control) presupposition, and therefore denote plans, the involuntary state construction occurs with oblique (dative) subjects that can never be paired with such a presupposition. Due to their dative case, these nominals do not qualify as directors, while their presence in the high applicative head, located in the topic domain, prevents inclusion of a director from the context (Rivero, 2009: 154). The meaning of disposition or desire which is expressed by

²¹ According to Rivero, unaccusative verbs, such as ‘to die’, can occur in the involuntary state construction, which is why the function of *se* is formulated in this way. In my opinion, the occurrence of unaccusative verbs in this construction is (marginally) possible only if they are used agentively.

the involuntary state construction is based on the *bouletic* modality which stems from the imperfective aspectual operator. Table 4 summarizes the main syntactic and semantic differences between *futurates* and the involuntary state construction.

Table 4. Futurates and the involuntary state construction compared

Futurates	Involuntary state construction
Progressive Operator (bouletic modality)	Imperfective Operator (bouletic modality)
Nominative subject (director/control presupposition)	Dative subject (no director/no control presupposition)
Denote plans	Denote dispositions or desires

As already mentioned, I agree with some basic observations in Rivero’s analysis, such as that the dative subject of the involuntary state construction lacks control and is therefore not the director.²² However, in contrast to Rivero, I believe that, precisely because the referent of the dative subject lacks control and is therefore not the director, this construction implies the presence of another director, i.e., the controller. On my view, presence of such a controller in the involuntary state construction and the causal relation through which it is linked to the agent (i.e., dative participant) are crucial for the modality of this construction (Claim 2). In contrast, on Rivero’s account, modality of the involuntary state construction arises due to the presence of the imperfective aspectual operator.

²² I also agree that this construction does not involve the ability presupposition, i.e., it does not presuppose the existence of a director that can ensure that the event occurs.

Because Rivero puts all the burden of the explanation on the imperfective aspectual operator, her proposal does not have the explanatory power to account for some basic data provided by the involuntary state construction in Serbian and Albanian. For example, as illustrated in (102a-b) below, the modal interpretation of the involuntary state construction in Albanian arises regardless of the grammatical aspect of the verb, i.e., imperfective vs. aorist (perfective).

Albanian (Kallulli, 2006: 277)

(102) a) Benit i ha-hej një mollë.
 Ben.DAT DAT.CL.3S eat-NACT.PST.IMP.3S an apple.NOM
 'Ben felt like eating an apple/Ben was apple-hungry.'

b) Benit i-u hëngë një mollë.
 Ben.DAT DAT.CL.3S- NACT eat-AOR.PST. 3S an apple.NOM
 'Ben felt like eating an apple/Ben was apple-hungry.'

Similarly, as already mentioned in Chapter 1, the involuntary state construction with causative predicates, which can be initiated by both agents and causes, can yield the modal necessity interpretation provided that the verb is used agentively, and in the imperfective aspect. When this is the case, the sentence becomes ambiguous between the modal necessity interpretation (103a) and the causative accidental interpretation (103b).

Serbian

(103) a) Marku se lome prozori.

Mark.DAT SE IMPERF.break.PRS.3.PL window.NOM.PL

‘Mark is in the windows-breaking mood.’

b) Marku se lome prozori.

Mark.DAT SE IMPERF.break.PRS.3.PL window.NOM.PL

‘Mark is accidentally breaking the windows.’

Crucially, both the modal necessity interpretation and the causative accidental interpretation arise along with the imperfective aspect. We therefore have to conclude that it is not the imperfective aspect *per se* that is responsible for the modality of this construction. On the contrary, what facilitates the modal interpretation apparently has to do with whether the verb is construed as initiated by the agent or by the cause. Modality of this construction therefore has to do with some very basic properties of the agency and event initiation. In this dissertation, I argue that this property is control, specifically, lack of agent control. This approach, I will argue, enables a unifying account of the modal meaning and the causative accidental meaning, which crosslinguistically seem to arise together, in the same morphosyntactic environment. On this view, the imperfective aspect, which prevalingly occurs with the modal interpretations, and the perfective aspect, which prevalingly occurs with the causative accidental interpretation, are not the source of origin of these meanings but rather naturally follow from their semantic properties.

In the next chapter, I begin to lay out the background for my analysis of the dative anticausative construction in Serbian. Because this analysis is set within a larger claim for a semantic unification of causative and modal meanings, I begin by providing a description of causative and anticausative constructions which, as I will demonstrate shortly, constitute morphosyntactic environment that gives rise to these meanings.

CHAPTER 4

CAUSATIVES AND ANTICAUSATIVES

The purpose of this chapter is twofold. The first is to provide a basic description of causative and anticausative constructions which will serve as a reference point for our discussion of syntactically and semantically less prototypical cases of causative and anticausative constructions (discussed in Chapter 6 and Chapter 7). The second purpose is to establish that both causative and anticausative constructions indicate lack of agent control due to the presence of another controller. As we will see shortly, the controller is either overtly expressed, as it is the case in causative constructions, or implied, as it is the case in anticausative constructions. In Chapter 6 and Chapter 7, I will argue from crosslinguistic data that, because both causative and anticausative constructions indicate lack of agent control due to the presence of another controller, they constitute morphosyntactic environments in which causative and modal meanings arise. These data therefore provide support for my claim that causative and modal meanings are semantically related (Claim 1).

4.1 Causatives

In order to understand the phenomena related to causation, it is useful to begin by defining what a causative situation is. A brief characterization of a causative situation (event), provided in Comrie (1981), states that every causative situation includes two component situations, the cause and its effect (result). A more formal characterization of

the causative situation, provided by Shibatani (1976: 1), states that “two events constitute a causative situation if the following two conditions hold:

- a. The relation between the two events is such that the speaker believes that the occurrence of one event, the *caused event*, has been realized at t_2 , which is after t_1 , the time of the *causing event*.
- b. The relation between the causing and the caused event is such that the speaker believes that the occurrence of the caused event is wholly dependent on the occurrence of the causing event; the dependency of the two events here must be to the extent that it allows the speaker to entertain a counterfactual inference that the caused event would not have taken place at that particular time if the causing event had not taken place, provided that all else had remained the same.”

4.1.1 Formal expression

Causative situations are expressed using causative forms, which are in typological tradition usually classified as 1) the periphrastic (also referred to as syntactic or analytic), 2) the morphological and 3) the lexical (also referred to as synthetic) types. Periphrastic causatives prototypically involve two separate predicates, one expressing causing event, and the other expressing caused event, as in the English sentences *I caused John to leave* and *I had John leave* (Comrie, 1981: 163).

Morphological causatives express causative situations using causative morphology. In many languages, this morphology can be applied to any type of predicate, and is therefore commonly referred to as *productive*. A good example is

provided by Turkish, in which the causative suffixes *-t* and *-dir* (used with vowel harmony variants) can attach to any verb to produce a corresponding causative form, as in the unaccusative *öl* ‘die’, giving rise to *öl-dür* ‘kill’, and the agentive transitive *imzala* ‘sign’, giving rise to *oimzala ku-t* ‘make sign’, and can even attach to a form that has already been causativized, as in *öl-dür* ‘kill’: *öl-dür-t* ‘cause to kill’ (Comrie, 1981: 160).

In contrast to morphological causatives, lexical causatives create causative forms without making use of a clearly identifiable causative morpheme. The relationship between causative and non-causative forms is therefore unsystematic, often involving suppletive pairs, as in the English verb pair *kill* and *die*, or Russian *ubit’* ‘to kill’ and *umeret’* ‘to die’ (Comrie, 1981: 161).

4.1.2 Causativization as a valency-increasing operation

Causative forms are usually associated with an increase in valency of the predicate. Introduction of causative morphology is therefore commonly viewed as a valency changing operation which introduces the causer argument into the structure, thereby increasing valency of the predicate by one argument. This point is well illustrated by the Turkish examples provided in (61), (62), and (63) below, which clearly demonstrate that the addition of the causative morphology introduces a new causer each time it occurs.

Turkish (Comrie, 1981: 168)

(104) a) Hasan öl-dü.

Hasan die-PAST

‘Hasan died.’

b) Ali Hasan-i öl-dür-dü.

Ali Hasan-ACC die-CAUS-PAST

‘Ali caused Hasan to die, killed Hasan.’

Turkish (Comrie, 1981: 169)

(105) a) Müdür mektub-u imzala-di.

director letter-ACC sign-PAST

‘The director signed the letter.’

b) Disci mektub-u müdür-e imzala-t-ti.

dentist letter-ACC director-DAT sign- CAUS-PAST

‘The dentist got the director to sign the letter.’

Turkish (Comrie, 1981: 169)

(106) a) Ali Hasan-i öl-dür-dü.

Ali Hasan-ACC die-CAUS-PAST

‘Ali caused Hasan to die, killed Hasan.’

Turkish (Zimmer, 1976: 411)

b) Ahmet Hasan-a rakib-in-i öl-dür-t-tü.

Ahmet Hasan-DAT rival-3POSS-ACC die-CAUS-CAUS-PAST

‘Ahmet made Hasan kill his rival.’

4.1.3 Two semantic parameters: directness and control

Causatives express two major semantic categories of direct and indirect causation. This distinction is based on the level of integration between cause and effect in a particular causative situation (e.g., Comrie, 1981: 165). In direct causation, cause and effect occur temporally so close together that they are perceived as a single macro-event. The effect in this type of causation is therefore brought about through a direct (unmediated) contact between the causer and the causee patient. In indirect causation, on the other hand, the relationship between cause and effect with respect to time and space of the occurrence is more distant, and the whole situation is perceived as involving two events. The effect in this type of causation is therefore typically brought about through a mediating agent (the causee). The opposition in meaning between direct and indirect causation roughly corresponds to the formal distinction between lexical causatives on one side, which tend to express direct causation, and morphological (productive) causatives on the other, which tend to express indirect causation. This is illustrated using examples from Japanese, in which lexical causatives convey direct, i.e., unmediated causation, and morphological (productive) causatives convey indirect, i.e., mediated causation. Thus, in lexical causative (107), the event of *Taro*'s doing something to the vase, say, pushing it accidentally while walking past it (cause), and the event of the vase

breaking (effect), are perceived as a single event in which *Taro* (the causer) is acting directly upon the vase (the causee). In contrast, in the morphological (productive) causative (108), the event of *Taro*'s doing something to physically or mentally manipulate *Jiro* (cause), and the event of *Jiro*'s breaking the vase (effect), are perceived as two temporally non-overlapping events in which *Taro* (the causer) acts upon the vase indirectly, via the mediating agent *Jiro* (the causee).

Japanese, direct causation (Shibatani and Pardeshi, 2002: 87)

(64) Taro-ga kabin-o wat-ta.

Taro-NOM vase-ACC break-PAST

'Taro broke the vase.'

Japanese, indirect causation (Shibatani and Pardeshi, 2002: 87)

(108) Taro-ga Ziroo-ni kabin-o wara-se-ta.

Taro-NOM Ziroo-DAT vase-ACC break-CAUS-PAST

'Taro made Jiro break the vase.'

Because direct causation is perceived as a single event involving a direct contact between the causer and the causee patient, actualization of the predicated event in this type of causation depends entirely on the causer. Causers of direct causatives therefore typically have full control over the causative situation, while the causee patients have none. Indirect causation, on the other hand, represents a causative situation as two events, each with its own agent. Actualization of the predicated event in this type of causation

depends on both the causer and the causee agent, and the causee therefore has a potential to retain a certain degree of control in the causative situation.

Indeed, as pointed out in Comrie (1981), many languages show a variation in the degree of control retained by the causee agent in the causative construction. This variation in the degree of control of the causee is commonly expressed as a formal variation in the case-marking of this constituent. For example, the accusative case, which is typically used to encode direct objects, indicates lesser independence on the part of the causee and more control on the part of the causer over the predicated event. On the other hand, the oblique cases, such as dative or instrumental, indicate a greater independence on the part of the causee, and less control on the part of the causer. This contrast is found in, e.g., Japanese, in which causee agents of certain causativized intransitive verbs may occur with either the accusative (66) or the dative case (67). Thus, sentence in (66) indicates no control on the part of the causee, and would therefore be an appropriate description of a situation in which *Taro* made *Ziroo* go through a physical coercion, say, by pushing or dragging him. Sentence in (67), on the other hand, indicates some degree of control on the part of the causee. This sentence would be appropriate in a situation when a more subtle, non-coercive form of persuasion was used (e.g., asking or giving a verbal order), without physical involvement of the causer in the execution of the predicated event (e.g., Kuroda, 1965).

Japanese, coercive causation (Comrie, 1981: 175)

- (109) Taroo ga Ziroo o ik-ase-ta.
Taroo NOM Ziroo ACC go-CAUS-PST
'Taroo made Ziroo go.'

Japanese, non-coercive causation (Comrie, 1981: 175)

- (110) Taroo ga Ziroo ni ik-ase-ta.
Taroo NOM Ziroo DAT go-CAUS-PST
'Taroo got Ziroo to go.'

Another kind of semantic distinction which seems to implicate variation in the degree of control retained by the causee is the one between the causative proper meaning and the causative permissive meaning. Thus, according to some authors (e.g., Kuno, 1973; Dubinsky, 1994), the same type of formal variation between the accusative and the dative case-marking of the causee agent in Japanese causativized intransitives gives rise to the distinction between the causative proper meaning ('make' causatives) and the causative permissive meaning ('let' causatives). This point is illustrated below, where the causative sentence with the accusative-marked causee in (111) indicates less control on the part of the causee and gives rise to the causative proper meaning, whereas the causative sentence with the dative-marked causee in (112) indicates more control on the part of the causee and gives rise to the causative permissive meaning.

Japanese, causative proper meaning (Dubinsky, 1994: 47)

(111) Tanaka wa hisyo o hayaku kaer-ase-ta.

Tanaka TOP secretary ACC early go.home-make-PST

‘Tanaka made his secretary go home early.’

Japanese, causative permissive meaning (Dubinsky, 1994: 47)

(112) Tanaka wa hisyo ni hayaku kae-rase-ta.

Tanaka TOP secretary DAT early go.home-make-PST

‘Tanaka let his secretary go home early.’

The semantic distinction between the causative proper and the causative permissive meaning is conceptual in nature, and therefore does not depend on the formal expression of the causee. For example, in Japanese productive causatives with transitive predicates, the causee agent is invariably marked with the dative case, but the semantic distinction in question arises all the same. The causative construction in (113) is therefore ambiguous between the causative proper (‘make’) meaning and the causative permissive (‘let’) meaning.

Japanese (Dubinsky, 1994: 47)

(113) Sensei ga seito ni eigo o hanasasete.

teacher NOM pupil DAT English ACC speak-CAUS-PST

‘The teacher made/let the pupils speak English.’

A similar kind of ambiguity in meanings has been observed in many other languages in which causation is expressed morphologically, such as Yup'ik Eskimo (114) and Even (115) illustrated below.

Yup'ik Eskimo (Payne, 1997: 179)

- (114) Qetunra-ni tage-vkar-aa.
son.ABS:POSS go:up-CAUS-3SG>3SG
'He makes/lets his own son go up.'

Even (Malchukov, 1993: 372)

- (115) etiken-Ø nugde-v hör-uken-Ø-ni
old man-NOM bear-ACC go-CAUS-NONFUT-3SG
'The man made/let the bear go.'

In the typological literature, the semantic distinction between the causative proper and the causative permissive meanings is characterized in the following way. In causative proper causation, the causer does something so that the causee performs the event, while in causative permissive causation, the causer either does something to facilitate, or does nothing to prevent the causee from performing the event (Nedyalkov and Silnitsky, 1973: 10). As pointed out in Comrie (1981), in the causative proper meaning, the causer has "the power to bring the effect about," while in the causative permissive meaning, the causer "has the power to prevent the effect from coming about."

In both cases, actualization of the predicated event is, at least partially, within control of the causer (Comrie, 1981: 164).

This semantic property of the causer noted by Comrie is crucial for the proposal put forward in this dissertation. To this end I can only add that, because the degree of control retained by the causee agent is always lower than that of the causer, the causee agent can be said to lack control over the causative situation (either fully or partially), while the control resides with the causer.

Now that I have established that causative constructions indicate lack of control on the part of the agent due to the presence of another controller, which is overtly realized as the causer, I proceed to the description of the anticausative construction. I provide the basic description of anticausatives, and discuss the issue of whether anticausatives involve an implied external argument in their lexical semantic representation. I present recent evidence showing that anticausative predicates lack agency, but involve an implied external argument (Alexiadou, Anagnostopoulou, and Schäfer, 2006; Kallulli, 2006). Based on this evidence, I propose that anticausative predicates indicate a split in the semantically unified notion of agent, and consequently indicate that the control is allocated elsewhere, to a locus which is distinguishable from the agent. As a result, anticausative predicates indicate lack of agent control, i.e., lack of (prototypical) agency, due to the presence of an implied controller.

4.2 Anticausatives

A well-known property of lexically causative verbs is that they can alternate between a causative (116a) and an *anticausative* (116b) form. I will refer to this property as the causative/anticausative alternation.²³

English causative/anticausative alternation

(116) a) Mark broke the window.

b) The window broke.

Both the causative and the anticausative forms of such verbs describe the same basic situation, typically a change of state, and differ primarily in that the former involves a syntactically expressed external argument, while the latter does not. Anticausative predicates therefore commonly denote change of state which occurs spontaneously (e.g., Haspelmath, 1993: 90).

4.2.1 Anticausativization as a valency-decreasing operation

In languages in which anticausative predicates are morphologically marked, addition of the anticausative morphology is always associated with the absence of the external argument from the syntax. This is illustrated with an example from Spanish, in which anticausative predicate is formed using the morpheme *se* (117).

²³ I use the term *anticausative* in a neutral way, instead of the more traditional term *inchoative*, to refer to those change-of-state verbs which alternate in form with causative verbs (cf. Alexiadou, Anagnostopoulou, and Schäfer, 2006). The use of this term therefore does not imply directionality of derivation, as it does in, e.g., Haspelmath (1993).

Spanish (Koontz Gardboden, 2008)

(117) a) Juan rompio el vaso.

Juan broke the cup

‘Juan broke the cup.’

b) El vaso se rompio.

The cup SE broke

‘The cup broke.’

Anticausativization is therefore commonly understood as a valency-decreasing operation which deletes the external argument from the argument structure of the predicate.

4.2.2 Selectional restrictions on the causative/anticausative alternation

Alternation between the causative and the anticausative form is restricted to those lexically causative verbs which do not specify a type of initiation in their lexical semantics. This is the case with the verb ‘break’, illustrated in (118) below, which can be initiated by an agent, an instrument, a cause, natural force, and even some unspecified circumstances. This verb can therefore undergo causative/anticausative alternation. In contrast, causative verbs which must be initiated by an intentional agent controlling the event, such as the verb ‘cut’ illustrated in (118) below, cannot undergo causative/anticausative alternation.²⁴

²⁴ The use of instruments presupposes an intentional agent in control of the event.

Selectional restrictions on causative/anticausative alternation

(119) a) The vandals/the rocks/the branch/the storm broke the window.

b) The window broke.

Selectional restrictions on causative/anticausative alternation

(120) a) The baker/the knife cut the bread./*The lightning cut the clotheslines.

b) *The bread cut.

4.2.3 The traditional view: anticausatives lack an implicit external argument

It is a widely accepted view that anticausative predicates do not imply an external argument. Argumentation supporting this view goes as follows. Because anticausatives lack the syntactically expressed external argument they resemble passives. However, in contrast to passives, which can occur with the oblique phrase identifying the implied agent (e.g., the *by*-phrase in English) (121a), with agent-oriented adverbs (121b), and can control into a purpose clause (121c), anticausatives cannot do any of the above. They cannot occur with the oblique phrase identifying an implied agent (e.g., the *by*-phrase in English) (122a), they are incompatible with agent-oriented adverbs (122b), and they cannot control into a purpose clause (122c) (see e.g., Manzini, 1983; Marantz, 1984; Levin and Rappaport Hovav, 1995; Reinhart, 2000; Chierchia, 1989/2004, among others).

Passive (Alexiadou, Anagnostopoulou, and Schäfer, 2006: 188)

- (121) a) The boat was sunk by Bill.
b) The boat was sunk on purpose.
c) The boat was sunk to collect the insurance.

Anticausative (Alexiadou, Anagnostopoulou, and Schäfer, 2006: 188)

- (122) a) *The boat sank by Bill.
b) *The boat sank on purpose.
c) *The boat sank to collect the insurance.

Moreover, because the *by*-phrase in English passives can express oblique agents as well as causes (123a-b) – and anticausatives with the *by*-phrase are ungrammatical irrespective of whether the constituent in question is an agent or a cause (124a-b), acceptability of the *from*-phrase identifying a cause in English anticausatives illustrated in (125b) is traditionally taken as an indication of its adjunct status. It is therefore commonly held that anticausatives lack an implicit external argument (e.g., Dowty, 1979; Pesetsky, 1995; Levin and Rappaport Hovav, 1995; Reinhart, 2000, 2002).

Passive, *by*-phrase (Alexiadou, Anagnostopoulou and Schäfer, 2006: 194)

- (123) a) The window was broken by John.
b) The window was broken by the storm.

Anticausative, by-phrase (Alexiadou, Anagnostopoulou, and Schäfer, 2006: 194)

(124) a) *The window broke by John.

b) *The window broke by the storm.

Anticausative, from-phrase (Alexiadou, Anagnostopoulou, and Schäfer, 2006: 194)

(125) a) *The window broke from Mary.

b) The window broke from the explosion.

According to one traditional proposal, anticausative verbs lack an implicit external argument because they are inherently monadic. Alternating causative verbs are semantically derived from their anticausative counterparts via causativization operation which adds the causative component to the predicate (e.g., Lakoff, 1968; Dowty, 1979; Williams, 1981; Pesetsky, 1995). In contrast, some authors propose that anticausative verbs are inherently dyadic, but lack an implicit external argument due to a lexical detransitivization operation which creates intransitive entries (e.g., Chierchia, 1989/2004; Levin and Rappaport Hovav, 1995; Reinhart, 2000, 2002; Reinhart and Siloni, 2005).

4.2.4 The non-traditional view: anticausatives involve an implicit external argument

However, the traditional assumption that anticausative verbs lack an implicit external argument has recently been challenged using data from languages such as Latin, Albanian, and Modern Greek, in which implicit external arguments – agents, as well as causes – occur in the same type of phrase (e.g., Alexiadou, Anagnostopoulou, and Schäfer, 2006; Kallulli, 2007). For example, Greek passives license the phrase *apo* ‘by’

to expresses an implied agent (126). Anticausatives in Modern Greek can license the same oblique phrase *apo* ‘by’, specifying that the event was caused by a cause (127) or “by itself” (128). As a matter of fact, the only type of initiator that anticausatives cannot express as an oblique phrase is an intentional human agent (130).²⁵

Greek passive (Alexiadou, Anagnostopoulou, and Schäfer, 2006: 198-199)

by-phrase expressing an agent

- (126) Ta mallia mu stegnothikan apo tin komotria.
the hair my dried-NACT by the hairdresser
‘My hair was dried by the hairdresser.’

Greek anticausative (Alexiadou, Anagnostopoulou, and Schäfer, 2006: 198-199)

by-phrase expressing a cause

- (127) To hirografo katastrafike apo tin pirkagia.
the manuscript destroyed-NACT by the fire
‘The manuscript got destroyed by the fire.’

25 Because the verb ‘destroy’ in Greek forms both passive and anticausative verbs using the same nonactive morphology, sentences in (127) and (129) are ambiguous between these two interpretations. Thus, presence of the oblique phrase expressing a cause yields anticausative interpretation, while presence of the oblique phrase expressing an agent yields passive interpretation. Crucially, on the anticausative interpretation, the sentence is incompatible with the expression of the oblique agent, as demonstrated by the asterisk in (129) (Alexiadou, Anagnostopoulou, and Schäfer, 2006: 198).

Greek anticausative (Alexiadou, Anagnostopoulou, and Schäfer, 2006: 198-199)

'by itself' phrase

- (128) To pani skistike apo mono tu.
the cloth tore-NACT by alone-SG its
'The cloth tore by itself.'

Greek anticausative (Alexiadou, Anagnostopoulou, and Schäfer, 2006: 198-199)

by-phrase expressing an agent

- (129) *To hirografo katastrafike apo tin ipalilo.
the manuscript destroyed-NACT by the employee
'The manuscript got destroyed by the employee.'

As pointed out in Kallulli, “if the ability of a passive verb to combine with a *by*-phrase is taken as evidence for the existence of the external argument in passives [...], then so should the ability of an anticausative verb to combine with a *from*-phrase identifying the (external) cause of the event” (Kallulli, 2007: 772). Incompatibility of anticausatives with oblique agents should therefore be taken as an indication for the lack of “agentivity,” rather than their inability to imply an external argument (Alexiadou, Anagnostopoulou and Schäfer, 2006: 201).²⁶

²⁶ Analyses which assume lack of the external argument in anticausative verbs typically point out that some unaccusative verbs which do not participate in the causative/anticausative alternation also allow expression of oblique causes in the *from*-phrase (e.g., ‘Eva died from a terminal illness’). However, as pointed out in Kallulli (2007), only those unaccusatives which refer to the external causation (in the sense of Levin and Rappaport Hovav, 1995) are compatible with the *from*-phrase, while other unaccusatives are not (e.g., *‘Eva arrived in time from her punctuality’). Thus, semantically causative verbs, such as *destroy* and *kill*, which do not undergo causative/anticausative alternation in languages such as English and German, in some other languages allow the anticausative form, i.e., *destroy* in Hebrew and French (Reinhart, 2002), and *destroy* and *kill* in Greek (Alexiadou, Anagnostopoulou, and Schäfer, 2006: 199).

I would like to suggest here that this situation should be understood in terms of control. In a nutshell, because anticausatives imply an external argument while at the same time indicating lack agency, what they really seem to imply is the split in the semantically unified notion of agent. Anticausatives therefore indicate lack of agent control due to the presence of another controller. This kind of approach is supported by the fact that those causative verbs which require to be initiated by an intentional agent in control of the event, e.g., ‘cut’, and therefore cannot be initiated by a controller, such as, i.e., a cause, natural forces, or circumstances, do not undergo causative/anticausative alternation (see section 4.2.2). On this view, causative and anticausative constructions consequently share one crucial property – they both indicate lack of agent control due to the presence of another controller. In Chapters 6 and 7, I will argue that it is exactly due to this property that causative and anticausative constructions are crosslinguistically found to give rise to causative and modal meanings.

CHAPTER 5

MODALITY

At the beginning of this dissertation I expressed the idea that, similar to causative meanings, modal meanings arise from causal relations expressing CAUSE and ENABLE (Talmy, 1988, 2000). I then related this idea to the notion of control and proposed that CAUSE and ENABLE express causal relations linking the controller to the predicated event via a mediating agent who lacks control over that event. In Chapter 4, I discussed causative and anticausative constructions in terms of control. In this Chapter, I propose that modality should similarly be viewed in terms of control. On this view, causal relations in modal meanings link the source of modality, which is seen as the controller, to the agent, who is consequently seen as lacking control over the predicated event. Modal meanings are therefore expected to arise in those morphosyntactic environments which express this type of causal relation. In Chapter 7, I argue that the Serbian dative anticausative construction provides such an environment and consequently gives rise to causative and modal meanings.

I begin this chapter by providing a brief description of the notion of modality, and the classification of modal meanings (section 5.1). I then briefly describe a causal approach to modality proposed in Talmy (1988, 2000) (Section 5.2). I then provide definitions of the causal concepts of CAUSE and ENABLE, and define control and intentionality, which will be crucial in our discussion of causative and anticausative constructions in the following chapters (section 5.3). Finally, I provide a brief overview of the main claims and main findings so far, in preparation for our discussion of language data in the following two chapters (section 5.4).

5.1 The notion of modality

Modality is a grammatical category closely related to tense and aspect. All three categories are concerned with the event or situation that is expressed by the utterance. However, as noted in Palmer (2001), while tense clearly refers to the time of the event, and aspect to its internal temporal structure, modality does not refer directly to any characteristic of the event. For example, *event modality* expresses conditions for event actualization, rather than the actual occurrence of the event. Specifically, event modality expresses that actualization of an event is possible or necessary given certain factors, such as a set of laws or moral principles, a person's desires, or circumstances, *etc.* Similarly, *epistemic modality* expresses that an event is judged as possibly or necessarily actualized given what is known and what the available evidence are.²⁷

Epistemic modality (Kai von Fintel, 2006: 2)

(130) It has to be raining. (after observing people coming inside with wet umbrellas)

Event modality (Kai von Fintel, 2006: 2)

(131) Visitors have to leave by 6pm. (according to hospital regulations)

(132) You have to go to bed in 10 minutes. (stern father)

(133) I have to sneeze. (given the current state of one's nose)

²⁷ The label "event modality" is borrowed from Palmer (2001).

5.1.1 Modality and *irrealis*

In the recent literature, the term *irrealis* has frequently come to be used to refer to modal situations. At least for some researchers, the distinction between the semantic notions of *realis* and *irrealis* seems to boil down to the differences in actualization (see e.g., Mithun, 1999). Evidence for the linguistic relevance of the opposition between the semantic notions of *realis* and *irrealis* comes from the Native American languages and languages of Papua New Guinea, in which this opposition has become grammaticalized. Although the grammatical categories of *realis* and *irrealis* are not crosslinguistically uniform, they are commonly used to distinguish between the past and present actualized events on one side, and the future events, negatives, *yes-no* questions, modality, conditions, and imperatives on the other, all of which have no actualization entailment (see e.g., Palmer, 2001).²⁸

However, although modality commonly pertains to non-actualized events, it does not seem to be fully subsumed under the semantic notion of *irrealis*. As we will see shortly, modal meanings are compatible with actualized events, counter to what is traditionally assumed in modal logic and most work on modality in language (see Chapter 6 for further details). These facts therefore indicate that the semantic notion of modality cannot be equated with the semantic notion of *irrealis*.

²⁸ Because they express a binary opposition, the grammatical categories of *realis* and *irrealis* are usually classified as the expressions of mood. In European languages, such as, e.g., Spanish, the opposition between indicative and subjunctive forms is used to express the semantic notions of *realis* and *irrealis*.

5.1.2 Modality as possibility and necessity

With respect to semantics, most linguists agree that modality has to do with possibility and necessity, which also are the central notions of traditional modal logic (e.g., Lyons, 1977; Kratzer, 1981; 1991; van der Auwera and Plungian, 1998; Palmer, 2001, among many others). Following this tradition, I will use the term *modality* to refer to the meanings of possibility and necessity, irrespective of whether the predicated event is actualized or not (cf. Mari and Martin, 2007).

5.1.3 Formal expression

Although possibility and necessity are typically conveyed using distinct modal expressions, such as, e.g., modal auxiliaries *may* and *must* in English, in some cases both meanings are conveyed using the same expression. For example, as previously mentioned, in addition to its lexical meaning, the Swedish verb *få* ‘get’ can also express, what van der Auwera and Plungian (1998: 56) refer to as, a “vague” modal meaning with both possibility and necessity interpretation. This was illustrated in (3) and (4), which are repeated here as (134) and (135).

Swedish, modal permission (Wagner, 1976: 56)

- (134) Lasse *får* köra bil.
Lasse gets drive car
‘Lasse may drive the car.’

Swedish, modal obligation (Wagner, 1976: 56)

(135) Lasse *får* köra bil.

Lasse gets drive car

‘Lasse must drive the car.’

Recall that a similar situation has also been observed in relation to morphological causatives, in which the same morpheme commonly conveys both the causative proper meaning and the causative permissive meaning (Chapter 4). In this case, the causative meaning is “global” in the sense that “it cannot be divided into the partial meanings of permissiveness and factivity in the same way that the meaning of the category of number divides into singular, plural, *etc.*” (Nedyalkov and Silnitsky, 1973: 11).

I interpret the fact that the same form can carry both meanings as an indication of a close semantic relationship between the causal concepts of CAUSE and ENABLE, which are argued to give rise to causative and modal meanings. As a matter of fact, it is exactly due to such a close semantic relationship between these concepts that the same morpheme, used in the same morphosyntactic structure, can give rise to both accidental causative meaning, which is argued to involve the concept of CAUSE, and the modal possibility meaning, which is argued to involve the concept of ENABLE. This was shown to be the case in, e.g., Tagalog, Lillooet Salish (see Chapter 1). Definitions of the concepts of CAUSE and ENABLE, which I provide in the following chapter, specify similarities and differences between these concepts.

5.1.4 Classification of modal meanings

The literature on modality offers little agreement on what terminology and classification should be used to describe modal meanings. The classification which is used in this dissertation in principle corresponds to the classification proposed in van der Auwera and Plungian (1998). The modal meanings are discussed in terms of the parameters of sense, source, and scope of modality. The parameter of sense conveys the basic meaning of a modal expression, i.e., possibility or necessity. The parameter of source identifies the source of modality as participant-internal, participant-external, or epistemic (observe that the source of modality in modal expressions is implied, rather than overtly expressed). Finally, the parameter of scope determines whether the modality concerns the event (*event* modality) or the entire proposition (*propositional* modality).²⁹

For example, the event modality concerns the event, and asserts the existence of the conditioning factors on the relevant participant – the agent, if present – with respect to actualization of the predicated event. Depending on the modal sense, these conditioning factors are interpreted as either enabling the event actualization, in which case the modal possibility meaning arises, or compelling it, in which case the modal necessity meaning arises. Finally, the parameter of source identifies this possibility or necessity as emanating internally or externally to the agent. If the source is participant-

²⁹The term ‘scope’ in this classification is to be understood in a descriptive way, as the equivalent of the verb ‘concern’, rather than indicating the syntactic scope of a modal expression. Nevertheless, the division into propositional modality and event modality corresponds to the differences in syntactic scope between these two types of modality. Thus, *epistemic* modality scopes high, i.e., above tense, negation, *etc.*, and is therefore thought of as ‘S-modality’. Event modality (or root modality), on the other hand, scopes low, i.e., below tense, negation, *etc.*, and is therefore thought of as VP-modality (e.g. Perlmutter, 1971; Ross, 1969; Jackendoff, 1972). As pointed out in Hacquard (2006), this type of modality is therefore centered on VP-event participants (agents or other).

internal, the conditioning factors are interpreted as the ability (136) or need (137) of the agent to perform the event.

Participant-internal modality:

- | | |
|-----------------------------|-----------------------|
| (136) Birds can fly. | ability (possibility) |
| (137) I need to take a nap. | need (necessity) |

If the source of the conditioning factors is external and refers to circumstances, the modality is *external, non-deontic*. The conditioning factors are interpreted as either enabling the event actualization, in which case the circumstantial possibility meaning arises (138), or compelling it, in which case the circumstantial necessity meaning arises (139).

Participant-external modality:

- | | |
|---|-------------------------|
| (138) We can mail this to you in two days. | non-deontic possibility |
| (139) You must leave now or you will be late. | non-deontic necessity |

On the other hand, if the source of the conditioning factors is external, and refers to an authority, such as legal, social and ethical norms, or simply the authority of another person, the modality is *deontic*. In this case, the conditioning factors are interpreted as permitting or obliging the relevant participant to perform the event, resulting in the modal permission (140) or obligation (141) meaning.

Participant-external modality:

(140) The customers may smoke in here. permission (*deontic* possibility)

(141) All passengers must buy a ticket. obligation (*deontic* necessity)

In contrast to event modality, which scopes over the event, propositional modality scopes over the proposition and ascribes the source of modality to the speaker's judgment of the proposition as possibly (142) or necessarily (143) actualized. This type of modality is referred to as *epistemic*.

Epistemic modality:

(142) John may have arrived. epistemic possibility

(143) John must have arrived. epistemic necessity

Table 3 summarizes the classification of modal meanings based on the parameters of sense, source, and scope.³⁰

³⁰ Although labels which are used in this classification are relatively standard, other labels, such as *dynamic* modality, and *root* modality, are also commonly used in the literature. Dynamic modality usually refers to abilities and desires of the agent, i.e., to those meanings which are in this classification labeled as the participant-internal modality. Root modality, on the other hand, most commonly refers to 'non-epistemic' modality (e.g., Ross, 1969; Perlmutter, 1971; Jackendoff, 1972; Coats, 1983; Palmer, 2001 among many others). In Bybee et al. (1994), the term *agent-oriented* modality is used in a way roughly corresponding to the term *root* modality. The classification of modal meanings which is adopted in this dissertation (Table 1) makes use of the term 'participant', which is more general and neutral than the term 'agent' (following van der Auwera and Plungian, 1998). Nevertheless, since the event modality mainly involves agents, the term *agent-oriented* modality (Bybee, 1985; Bybee et al., 1994) is still a useful notion, as it emphasizes the role of agent. Moreover, the classification of modal meanings provided in Table 3 includes only reports, but not illocutionary acts (such as imperatives, prohibitives, optatives, etc.), which are used to impose, or propose certain conditions on the agent (following van der Auwera and Plungian, 1998).

Table 5. Classification of the modal meanings

Scope	Source		Sense	
			Possibility	Necessity
Event	Internal		Ability	Need
	External	Non-deontic	Non-deontic Possibility	Non-deontic Necessity
		Deontic	Permission	Obligation
Proposition	Epistemic		Epistemic Possibility	Epistemic Necessity

In the remainder of this dissertation I focus on event modality, since this is the type of modality that was found to arise in the causative and the anticausative constructions discussed in Chapters 6 and 7, and which therefore has the most bearing on our discussion. Throughout this dissertation I will therefore hereafter refer to the event modality simply as ‘modality’.

5.1.5 Modality and control

In this section I would like to propose that the source of modality should be viewed as the controller. I would like to propose further that the controller is perceived as distinguishable from the agent regardless of whether the source of modality is external or internal to the agent. Because the controller in modal expressions is implied, rather than overtly expressed, causal relations in modal expressions give rise to modal, rather than causative meanings. Based on these observations, modal assertions are expected to be found in those morphosyntactic environments in which the agent argument is devoid of control, and in which the controller is implied, rather than overtly expressed (Claim 3).

Indeed, as we will see shortly, this is exactly what the data from Finnish desiderative causatives and Serbian dative anticausatives show (Chapter 6 and Chapter 7).

5.2 Modality as causation (Talmy, 1988, 2000)

In this dissertation modality is understood as an expression of causal relations conveying the concepts of CAUSE and ENABLE. A causal approach to modality was originally proposed in Talmy (1988, 2000), as part of his force-dynamics theory of causation. The essence of this proposal is that non-physical causation can be explained by the metaphoric analogy to the physical causation. The base of this metaphor is one entity's direct imposition of physical force on another entity toward the latter's manifesting a particular action. Conceptualized as analogous to this description is one sentient entity's production of stimuli (including communication), which is perceived by another sentient entity, and interpreted as a reason for a volitional performance of the particular event (Talmy, 1988: 75). This is illustrated in (144), where the verb *push* is used metaphorically to express a social interaction (*sociodynamics*).

Social interaction (Talmy, 1988: 76)

(144) The gang pushed him to do things he didn't want to.

Similarly, lexical items, such as *urge*, *persuade*, *etc.*, express social interaction in which one sentient entity through communication tries to affect another entity's intention towards the performance of an action. This is illustrated in (145) below, where a female person through a communication with a male person attempts to affect his intentions

towards the action of leaving. According to Talmy, this kind of social interaction is perceived as a form of force-dynamic interaction, with one entity exerting pressure on the other entity toward a particular action (Talmy, 1988: 76).

Social interaction (Talmy, 1988: 76)

(145) She urged him to leave.

According to Talmy, modality can be explained in a similar way, by the metaphoric analogy to the physical causation. Thus, according to Talmy, modal verbs, such as *can*, *need*, *may*, *must*, *etc.* can also be understood as the expressions of force-dynamic interactions. Consider the semi-modal verb *have to*, which is illustrated in (146).³¹

Modality (Talmy, 1988: 87)

- (146) a) The boy had to stay in and do his homework (or else get punished).
b) The fugitive had to stay in hiding (or risk capture).
c) I had to get to the bank before 3 (or have no cash for the evening).

As pointed out in Talmy, all three sentences in (146) involve a sense of externally imposed pressure by an outside entity whose existence is implied by the context. This entity has the capacity to bring about the undesired action indicated in the parentheses, and is therefore attributed the power to coerce. For example, in (146a), there is an

³¹ All three sentences are classified as the examples of the participant-external *deontic* modality in the classification of modal meanings provided in Table 5 (section 5.1.4).

implicit authority of the boy's parents who want the boy to act in a certain way, or else have the power to punish him. In (146b), there is an implicit authority threatening consequences in case of the capture. In (146c), the power to coerce is attributed to worldly exigencies. However, regardless of the differences in the particular type of authority involved in the above examples, causal relations and the force oppositions lie at the core of their modal meanings.

Talmy further argued that English causative and modal verbs form a single larger group of verbs which he referred to as the 'Greater Modal System' (Talmy, 1988: 80). According to Talmy, both causative and modal verbs express causal relations between entities, and differ primarily in which entity is encoded as the subject. Thus, in causative verbs, the affecting entity is encoded as the subject. In modal verbs, on the other hand, the subject is the affected entity, while the affecting entity is implied (Talmy, 1988: 81). For example, in the causative sentence *I made him push the car to the garage*, the affecting entity (i.e., the person referred to as *I*) is overtly expressed as the subject. However, in the sentence *He must push the car to the garage*, involving the modal verb *must*, the affecting entity is implied, while the affected entity (i.e., the person referred to as *he*) is encoded as the subject. The syntactic difference between causative and modal verbs in terms of syntactic expression of the affecting entity and the syntactic encoding of the affected entity is summarized in Table 6.

Table 6. Syntactic expression of the affecting entity and the syntactic encoding of the affected entity in causative and modal verbs

	The affecting entity	The affected entity
Causative verbs	Subject	Object
Modal verbs	(implied)	Subject

5.3 Defining CAUSE and ENABLE (Wolff et al., 2002)

In Wolff et al.'s (2002) adaptation of Talmy's (1988: 2000) theory of force-dynamics, causal concepts, such as CAUSE and ENABLE, are defined based on the following three dimensions: a) the tendency of the patient for the result, b) the presence of the opposition between the *affector* (the affecting entity) and the *patient* (i.e., the affected entity), and c) the occurrence of a result. These dimensions themselves are defined in the following way. "The notion of tendency is specified as the patient's propensity for the result due to properties or activities that are internal to the patient. Opposition between the affector and patient is said to be present when the force exerted on the patient by the affector is not consistent with the patient's tendency. The notion of result is defined as a particular end state that a patient could enter into" (Wolff et al., 2003: 8).

According to Wolff et al.'s definitions, the concepts of CAUSE and ENABLE differ in the tendency of the *patient* for the result, and the presence of opposition between the *affector* and the *patient*, while both concepts involve occurrence of a result. Thus, CAUSE involves no tendency of *patient* for the result, and opposition between the *affector* and the *patient*. In contrast, ENABLE involves tendency of the *patient* for the result, and no opposition between the *affector* and the *patient*. The distinction between

these two concepts is illustrated in (147) and (148) below. Thus, in (147), the *patient* (i.e., *the boat*) has no tendency for the result (i.e., *healing*). The *patient*'s lack of tendency is opposed by the *affector* (i.e., *the blast*), and the result occurs. In contrast, in (148), the *patient* (i.e., *the body*) has a tendency for the result (i.e., *digestion*). Consequently, no opposition between the *affector* (i.e., *vitamin B*) and the *patient* (i.e., *the body*) arises. The *affector* (i.e., *vitamin B*) therefore enables the occurrence of the result (i.e., *digestion*).

CAUSE (Wolff, 2003: 9)

(147) The blast caused the boat to heel.

ENABLE (Wolff, 2003: 9)

(148) Vitamin B enables the body to digest food.

According to this model, the expression *X causes Y to VP* is roughly equivalent to “Y’s tendency to not [VP] is opposed and overcome by X, leading Y to [VP].”

Likewise, the expression *X enables Y to [VP]* is roughly equivalent to “Y’s tendency to [VP] is not opposed, and possibly facilitated, by X, leading Y to [VP]” (Wolff, 2003: 9).

I adopt the definitions of the concepts of CAUSE and ENABLE proposed in Wolff et al. (2002), but I propose to further relate them to the more familiar linguistic notions of *control* and *intentionality* which are used in the majority of works on causation and agency in the linguistic literature. I will assume that, because control and intentionality are so crucial for grammatical judgments related to causative and modal

meanings (see evidence in Chapters 6 and 7) it is plausible that these notions are, in fact, the semantic features upon which the concepts of CAUSE and ENABLE are built in natural language.³²

I propose that the semantic concept of *control* be understood in terms of the ‘relative strength’ of the interacting tendencies or forces (Talmy, 1988). Thus, when the interacting forces are opposed, the entity which is able to manifest its tendency at the expense of its opposer is the stronger, and therefore determines whether the event is actualized or not (Talmy, 1988: 414). Such an entity is said to control the event. This type of situation is present in the concept of CAUSE. On the other hand, when the interaction between forces does not involve opposition, as it is the case with the concept of ENABLE, control is taken to be split between the two interacting entities – one, that has the tendency to perform the event, and the other, that has the ability to have this tendency manifested. Nevertheless, as we will see in shortly (Chapter 6), it is the latter entity that determines whether the event is actualized or not and consequently controls the event.

With respect to *intentionality*, since most of our discussion will be concerned with the data involving a human agent, the notion of physical tendency will be replaced by the notion of intentional tendency, or simply ‘intention’ (following Talmy, 1988, 2000; and Wolff, 2007). I define intention as a conscious tendency of a sentient entity to actualize an event based on some internal or external necessity to do so.³³

³² One piece of evidence in support of this assumption is, for example, the fact that the notion of control, or lack thereof, commonly receives morphological marking in languages of the world (see Chapter 1).

³³ Recall that in this dissertation, the meanings of desire and volition are treated as semantically related to the more basic meaning of modal necessity (following Bybee et al., 1994). Similarly, the meaning of intentionality also seems to be semantically related to the necessity meaning, as evidenced by the fact that the lexemes expressing desire and obligation have historically been used to express intention (Bybee et al., 1994: 178).

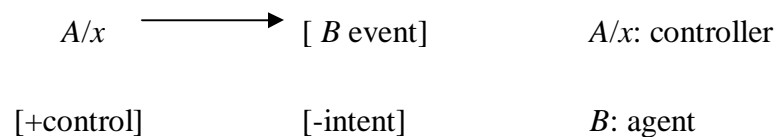
Using these semantic features, we can now specify that the concept of CAUSE involves an entity that controls the event, i.e., the controller, and an unintentional agent who lacks control over the predicated event. In contrast, the concept of ENABLE involves an entity that controls the event, i.e., the controller, and an intentional agent who lacks (full) control over the predicated event. This is summarized in Table 7.

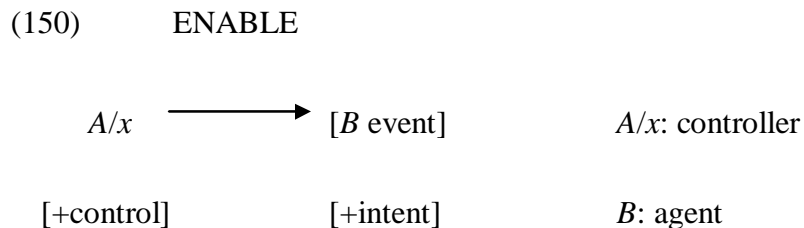
Table 7. Properties of CAUSE and ENABLE

	Controller	Intentional agent
CAUSE	Yes	No
ENABLE	Yes	Yes

In this dissertation, I will use the following type of notation to represent causal relations. Upper case *A* and lower case *x* stand for the controller, with the upper case *A* representing human causers and the lower case *x* representing inanimate causes. Upper case *B* represents the obligatory causee agent, while lower case *y* stands for an inanimate patient. In both (149) and (150) below, the controller is overtly expressed. The arrow on these diagrams represents directionality of the causal relation. Interpretation of the causal relation as CAUSE or ENABLE is determined by the intentionality of the agent.

(149) CAUSE





5.4 Tying it all together

In Chapter 4, I suggested that causative and anticausative constructions indicate lack of agent control and due to the presence of another controller. In causative constructions, both the controller and the agent are overtly expressed and linked together in a mediated causal relation. In anticausative constructions, on the other hand, the controller is implied, while the agent is altogether absent from their semantics. The causal relation in anticausative constructions therefore links the implied controller and the patient through a direct, unmediated causation.

In this chapter, I proposed that modal expressions also indicate lack of agent control due to the presence of another controller. As in anticausative constructions, the controller in modal expressions is implied. On the other hand, similar to causative constructions, the agent in modal expressions is overtly expressed. This situation makes a following prediction. If a causative construction occurs with an implied rather than the overtly expressed controller, a modal assertion is expected to arise. Similarly, if an anticausative construction occurs with an overtly expressed agent argument, a modal assertion is expected to arise. To anticipate, these expectations come to bearing in the desiderative causative construction in Finnish, and in the dative anticausative construction in Serbian, which are discussed in Chapters 6 and 7, respectively. In

anticipation of our discussion of these data, Table 7 below summarizes properties of causative and anticausative constructions, as well as modal expressions, along with the desiderative causatives in Finnish and the dative anticausatives in Serbian, all viewed in terms of control, and with the resulting asserted meaning.

Table 8. Properties of causatives, anticausatives, modals, the desiderative causatives in Finnish, and the dative anticausatives in Serbian

	Overt Controller	Obligatory Agent	Assertion
Causatives	Yes	Yes	causative
Anticausatives	No	No	change-of-state
Modals	No	Yes	modal
Desiderative causatives (Finnish)	No	Yes	modal
Dative anticausatives (Serbian)	No	Yes	modal*

*The assertion is modal only with agentive predicates.

In the following two chapters I turn to linguistic data to demonstrate the validity of my claim that causative and modal meanings arise in the same morphosyntactic environments and are therefore semantically related. I demonstrate that, once causatives, anticausatives, and modals are understood in terms of control, the source of origin of modal meanings in non-prototypical causative constructions, such as Finnish desiderative causatives, and non-prototypical anticausative constructions, such as Serbian dative anticausatives, becomes apparent. Specifically, I show that the modality in these constructions arises from the causal relations which involve the implied controller and

the agent who lacks control over the predicated event. In order to keep the discussion as simple as possible, in this dissertation I will focus only on causal relations representing the concept of CAUSE, leaving relations representing ENABLE for future work.³⁴

³⁴ Some examples of causal relations expressing ENABLE were already provided in Chapter 1. (e.g., the *abilitative* ‘manage to’ meaning which arises in Tagalog and Lillooet Salish).

CHAPTER 6

EVIDENCE FROM CAUSATIVE CONSTRUCTIONS

In this Chapter I present three kinds of evidence validating my claim that the causative and the modal meanings crosslinguistically occur in the same morphosyntactic environments and are therefore semantically related (Claim 1). The first kind of evidence comes from the periphrastic causative construction in Italian, which shows that causative and modal meanings can arise – sometimes with one as assertion and one as non-cancellable presupposition – in a single reading of a construction (Section 6.1). The second kind of evidence comes from the desiderative causatives in Finnish which show that, under certain morphosyntactic conditions, when the causative assertion fails to obtain, the modal meaning arises as the new assertion (Section 6.2) (Claim 3). The third kind of evidence comes from the dative anticausatives in Serbian which demonstrate that, depending on the lexical semantics of the predicate, causative and modal assertions may arise as two different interpretations of the same construction (Section 6.2). All of these data, I argue, involve a controller which is distinguishable from the agent, and consequently express a causal relation involving the controller and the agent (Claim 2). This causal relation conveys the concept of CAUSE or ENABLE, which underlie both causative and modal meanings.

I begin this discussion by presenting evidence from periphrastic *fare* causatives in Italian. As we will see shortly, one type of the Italian *fare* causative construction asserts causative proper meaning, while at the same time presupposing the modal meaning of obligation. This modal meaning is shown to arise only when the agent is the obligatory argument of the main verb and is consequently involved in the causal relation expressed

by the causative construction. These data therefore demonstrate that the modal obligation meaning results from this causal relation, precisely like the causative proper meaning with which it co-occurs (Claim 2). The fact that the modal obligation meaning and the causative proper meaning arise together, in the same causative construction, is taken as evidence of their semantic relationship (Claim 1).

6.1 Evidence from periphrastic *fare* causatives in Italian

Italian makes use of a periphrastic causative construction which involves the verb *fare* ‘make’ followed by an infinitival complement. When the embedded verb is transitive, the causee agent can be introduced either by the preposition *a* ‘to’, which corresponds to the dative case, or by the preposition *da* ‘by’, which is the same preposition used to introduce the implicit external argument in the passive construction. These two versions of the Italian *fare* causatives are usually labeled as *faire infinitif* (FI) and *faire par* (FP), after the periphrastic *faire* causatives in French.

FI causative construction (Folli and Harley, 2007: 201)

(151) Gianni ha fatto riparare la macchina a Mario.

Gianni has made repair the car to Mario

‘Gianni got Mario to repair the car.’

FP causative construction (Folli and Harley, 2007: 201)

- (152) Gianni ha fatto riparare la macchina (da Mario).
Gianni has made repair the car by Mario
'Gianni got the car repaired by Mario'.

The formal difference between FI and FP causatives illustrated above corresponds to several differences with respect to their syntactic behavior. For example, only the *a*-phrase of the FI causatives can bind a variable pronoun in the embedded object position (153), while the *da*-phrase of the FP causatives cannot (154) (Burzio, 1986).

FI causative, binding into the embedded object (Burzio, 1986: 250)

- (153) Gianni_j ha fatto temperare la sua_{i/j} matita
Gianni has made sharpen the his pencil
a ogni ragazzo_i.
to every boy
'Gianni_j had every boy_i sharpen his_{i/j} pencil.'

FP causative, binding into the embedded object (Burzio, 1986: 250)

- (154) Gianni_j ha fatto temperare la sua_{*i/j} matita
Gianni has made sharpen the his pencil
a ogni ragazzo_i.
to every boy
'Gianni_j had his_{*i/j} pencil sharpened by every boy_i.'

Another piece of evidence demonstrating a syntactic difference between FI and FP causatives comes from the fact that transitive verbs which cannot be passivized cannot occur in FP causatives, in which the causee agent is part of the *by*-phrase, but are fully acceptable in FI causatives, in which the causee agent is marked with the dative case (i.e., the preposition *a* ‘to’). This is demonstrated below using the verb *avere* ‘to have’ (155), which cannot be passivized (156), and is therefore incompatible with the FP causative in (157), but readily occurs as the embedded verb of the FI causative in (157).

The verb *avere* ‘to have’ (Folli and Harley, 2007: 200, fn.4)

(155) Maria ha un libro.

Maria has a book

‘Maria has a book.’

The verb *avere* ‘to have’ cannot passivize (Folli and Harley, 2007: 200, fn.4)

(156) *Un libro è avuto da Maria.

A book is had by Maria

‘A book is had by Maria.’

The verb *avere* ‘to have’ in an FP causative (Folli and Harley, 2007: 200, fn.4)

(157) *Gianni ha fatto avere un libro da Maria.

Gianni has made have a book by Maria

‘Gianni made a book had by Maria.’

The verb *avere* ‘to have’ in an FI causative (Folli and Harley, 2007: 200, fn.4)

(158) Gianni ha fatto avere un libro a Maria.

Gianni has made have a book to Maria

‘Gianni made Maria have a book.’

Moreover, it has been argued that the causee agent in FP causatives is optional, while the causee agent in FI causatives is the obligatory constituent of the causative construction (Burzio, 1986: 228). For example, FI causatives allow idiomatic interpretation of nonpassivizable idioms, while FP causatives do not.

FI causative, idiomatic interpretation of nonpassivizable idioms (F&H, 2007: 200)

(159) Marco non ha fatto fare un tubo a Maria.

Marco not has made make a tube to Maria

a) ‘Marco didn’t let Maria achieve anything.’

b) ‘Lit: ...didn’t make Maria make a tube.’

FP causative, idiomatic interpretation of nonpassivizable idioms (F&H, 2007: 200)

(160) Marco non ha fatto fare un tubo da Maria.

Marco not has made make a tube by Maria

a)* ‘Marco didn’t let Maria achieve anything.’

b) ‘Marko didn’t make Maria make a tube.’

As demonstrated above, the idiomatic interpretation of the phrase *fare un tubo* ‘(not) achieve anything’ is available only with FI causatives, while with FP causatives only the literal interpretation ‘make a tube’ is possible. Crucially, when a causative of *fare un tubo* occurs without the causee agent, only the literal interpretation is possible, demonstrating that the construction is interpreted as the FP causative regardless of the presence of the causee agent. This indicates that the causee agent in FP causatives is an optional constituent. In contrast, the causee agent in FI causatives is the obligatory argument of the embedded verb which is interpreted as the achiever, i.e., as the one “making the tube” in the idiomatic phrase *fare un tubo*, thereby facilitating the idiomatic interpretation.

FP causative without the causee agent (Folli and Harley, 2007: 200)

(161) Marco non ha fatto fare un tubo.

Marco not has made make a tube

- a) ‘Marco didn’t have a tube made.’
- b) #Marco didn’t let anyone achieve anything.’

In addition to the syntactic differences described above, FI and FP causatives also differ in their semantics. Namely, it has often been observed that FI causatives give rise to the meaning of obligation on the part of the causee to perform the event denoted by the embedded verb (Guasti, 1996; Ippolito, 2000; Folli and Harley, 2007). Crucially, the obligation meaning arises only in FI causatives, in which the causee is the obligatory agent argument of the embedded verb, but not in FP causatives, in which this constituent

is optional (Folli and Harley, 2007: 201). For example, the FI causative illustrated in (107) above, repeated here as xx, involves the meaning that the causee agent, i.e., *Mario*, is obligated to perform the predicated event of the car repair. The source of this obligation is the causer, i.e., *Gianni*.

FI causative construction, modal obligation (Folli and Harley, 2007: 201)

(162) Gianni ha fatto riparare la macchina a Mario.
Gianni has made repair the car to Mario
'Gianni got Mario to repair the car.'

According to Folli and Harley, presence of the obligation meaning is best evidenced in those FI causatives in which the causee is considered intentional even before entering the causal relation with the causer. This is the case in (163) below, in which the causee agent of the embedded event of 'the car repair' is the noun phrase 'mechanic'. Based on our encyclopedic knowledge that it is a job of a mechanic to repair cars, and on the assumption that one should intend to do his own job, the causee in (163) is interpreted as already intentional, and the sentence is consequently perceived as semantically odd (Folli and Harley, 2007: 201).

FI causative construction, modal obligation (Folli and Harley, 2007: 201)

(163) Gianni ha fatto riparare la macchina al meccanico di Fiume.
Gianni has made repair the car to.the mechanic of Fiume
'Gianni had the mechanic in Fiume St. repair the car.'

However, in contrast to the FI causative in (163) above, the same causee, i.e., ‘the mechanic’, is perfectly acceptable in the FP causative in (164) below, in which the causee is an optional constituent, rather than the obligatory agent argument of the embedded verb. Because what is being caused in (164) is “the repair of the car,” rather than “the mechanic repairing the car,” the sense of obligation does not arise, and intentionality of the causee is therefore irrelevant.

FP causative construction, no modal obligation (Folli and Harley, 2007: 201)

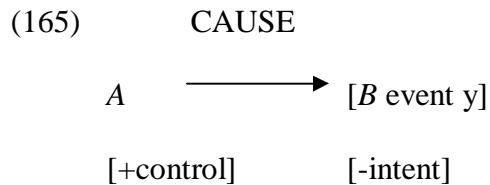
(164) Gianni ha fatto riparare la macchina dal meccanico
 Gianni has made repair the car by.the mechanic
 di via Fiume.
 of street Fiume
 ‘Gianni had the car repaired by the mechanic in Fiume St.’

On the proposal put forward in this dissertation, the obligation meaning which is observed in FI (but not FP) causatives results from the causal relation linking the causer (i.e., the controller) and the causee agent, and arises from the same underlying concept of CAUSE as the causative proper meaning which is expressed by the Italian *fare* causatives. Given our definition of CAUSE, which I argue underlies both causative proper and the modal obligation meaning, the FI causative in (163) sounds odd because an intentional causee by definition cannot be made to perform the event which he already intends to perform. On the same token, an intentional causee by definition cannot have an obligation to perform the event which he already intends to perform. In other words, the

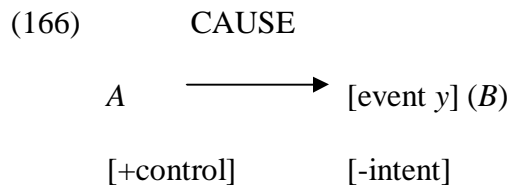
semantic oddity of (163) arises because it involves an already intentional causee agent as part of the causal relation expressing the concept of CAUSE.³⁵ Finally, the fact that the obligation meaning arises only in FI causatives demonstrates that the causee agent is included in the causal relation only when it is represented as the obligatory argument of the verb, and not when it is an optional constituent introduced by a *by*-phrase.

The distinction between causal relations in FI and FP causatives in Italian is represented below, using the notation proposed in Chapter 5. The upper case *A* in both (165) and (166) stands for the human causer (i.e., the controller), while the upper case *B* stands for the causee agent. Letter *B* in parentheses designates optionality of the causee argument in the FP causatives, and consequently its exclusion from the causal relation expressed by this type of causatives (166).

FI causatives (modal obligation presupposition)



FP causatives (no modal obligation presupposition)



³⁵ In this respect, I depart from Folli and Harley, who explain the peculiarity of (163) as “encyclopedic knowledge about social norms which either facilitates or inhibits the availability of the obligation interpretation, owing to the situational roles of the matrix subject and the causee” (Folli and Harley, 2007: 201).

Lack of the obligation presupposition in FP causatives, in which the causee agent is not part of the causal relation, and the availability of this presupposition in FI causatives, in which the causee agent participates in it, indicate that the modal obligation meaning in FI causatives arises from the type of causal relation which is expressed by this construction. We therefore conclude that the source of origin of the modal obligation meaning in the Italian FI causatives is the causal relation between the causer (i.e., the controller) and the causee agent. On this view, the obligation meaning in the Italian FI causatives occurs along with the asserted causative proper meaning precisely because both meanings arise from the causal relation which involves an unintentional causee agent, and therefore conveys the concept of CAUSE. The fact that the intentionality of the causee in example (163) above creates a semantic oddity, rather than cancels the obligation meaning, suggests that this meaning does not arise due to pragmatics, but rather as a non-cancellable presupposition accompanying the asserted causative proper meaning. Because the source of this obligation meaning is identified with the causer, it is classified as the *deontic* external necessity (see the classification of modal meanings provided in Table 5, in Chapter 5).³⁶

³⁶ The obligation meaning which arises in Italian FI causatives is commonly explained in terms of the double theta-role assignment and the theta-role fusion (e.g., Alsina, 1992; Guasti, 1996). In addition to being theoretically unattractive because it requires double theta-role assignment, I believe that such an approach overlooks the semantic relation between modality and causation, and is therefore less satisfactory. The account of the sense of obligation in FI causatives put forward in Folli and Harley (2007) is closer in spirit to the proposal put forward in this dissertation. Intuitively, they say, the only way to cause an unintentional agent to intentionally do something is to oblige it to – hence an implication that the causer is obliging the causee agent to perform the embedded event (Folli and Harley, 2007: 213). While both accounts share the same basic intuition that the sense of obligation is somehow related to the meaning of causation, the account proposed in this dissertation attempts to define a systematic and more general semantic relation between causative and modal meanings based on the shared notional concepts of CAUSE and ENABLE.

6.2 Evidence from morphological causatives in Finnish

In the previous section I used data from the Italian *fare* causatives to demonstrate that modal meanings arise along the asserted causative meanings, in the same type of morphosyntactic environment expressing a causal relation involving the causer (controller) and the causee agent (Claim 1 and Claim 2). In this section I show that causal relations which involve an implied, rather than overtly expressed controller, fail to obtain a causative assertion, and assert modality instead (Claim 3). Evidence for this claim comes from *desiderative* causatives, a particular type of Finnish morphological causatives which lack an overtly expressed causer and assert a modal necessity meaning. Finnish desiderative causatives thereby contrast with canonical causatives in this language, which occur with an overtly expressed causer and assert causative proper meaning. I will further show that the desiderative causatives involve only causativized unergative predicates, in which the external argument is the obligatory argument of the causative formation and therefore participates in the causal relation. In contrast, desiderative causatives cannot be derived from causativized transitive predicates, in which the external argument is optional and therefore does not take part in the causal relation. These data therefore provide further evidence for my claim that modal meanings arise from causal relations between the controller and the agent, and are consequently found only in those constructions in which the agent is involved in the causal relation (Claim 2). I begin this section by presenting relevant properties of Finnish canonical causatives.

6.2.1 Canonical causatives

Finnish makes use of a very productive morphological process of causativization which applies to both intransitive and transitive predicates. In causatives with unergative predicates, such as the one illustrated in (167) below, the causee agent is an obligatory argument bearing the objective, partitive case (Sulkala and Karjalainen, 1992: 296). The causee agent consequently participates in the causal relation expressed by the causativized predicate. What is being caused in this type of causatives is therefore the performance of the event (e.g., “me singing” in example (167) below).

Canonical causative, unergative predicate (Sulkala & Karjalainen, 1992: 296)

- (167) Opettaja laula-tta-a oppilast-a.
 teacher.NOM sing-CAUS-3SG pupil-PART
 ‘The teacher makes a pupil sing.’

On the other hand, in causatives with transitive predicates, such as the one illustrated in (168) below, the causee agent is an optional oblique bearing the adessive, rather than the partitive case (Sulkala and Karjalainen, 1992: 296). The causee may therefore freely be omitted, and consequently does not participate in the causal relation expressed by the causative construction. What is being caused in this type of causatives is therefore only the VP part of the event (e.g., “an autobiography being written”), while the causee agent expresses merely an additional piece of information about this event (I return to this distinction between causatives with unergative and causatives with transitive predicates in the following section).

Canonical causative, transitive predicate (Nelson, 2000: 172)

- (168) Aili kirjoitu-tti omaelämäkert-a-nsa (kirjailija-lla)
Aili.NOM write-CAUS-PAST.3SG autobiography(ACC)-3POS (writer-ADESS)
'Aili had her autobiography written (by a writer).'

Canonical causatives typically occur with a human causer. As a rule, such causatives entail that the eventuality occurs (i.e., they involve “actuality entailment,” following Bhatt, 2000). If actuality entailment is denied, the sentence becomes semantically odd, as in (115) below.³⁷

Canonical causative, actuality denied (p.c.)

- (169) ??Mies juoksutt-i minu-a, mutta en juossut
man.NOM run-CAUS-PST I-PART, but not.1SG run.SG.PST
'The man made me run, but I did not run.'

Although the causer in Finnish causatives is typically human (animate), at least for some native speakers causatives with inanimate causers are also possible. According to native speakers' intuition, such inanimate-causer causatives can have two interpretations demonstrated in (170) and (171) below. On the interpretation illustrated in the (a) versions of these examples, the asserted meaning is causative proper. On the interpretation illustrated in (b) versions of the same examples, the causative proper assertion involves an additional modal necessity meaning. This modal necessity is

³⁷ If not otherwise marked, all examples are provided by my Finnish informants, Dr. Geda Paulsen and Dr. Pauli Brattico, to whom I am greatly indebted.

understood as a need, desire, or a disposition of the agent to perform the caused event, as determined by the lexical meaning of the predicate. The source of necessity is typically identified with the causer, e.g., the ‘beer’ in (116) and the ‘joke’ in (117), thus classifying it as the *non-deontic* external necessity. Nevertheless, despite this additional sense of modality, the interpretation illustrated in (b) versions of the examples below is essentially causative, as evidenced by the use of the verb ‘make’ in the English translations.

Canonical causative with an inanimate causer (p.c.)

- (170) Olut pissattaa minu-a.
 beer.NOM pee-CAUS-3SG I-PART
 a) ‘Beer makes me pee.’
 b) ‘Beer makes me have to pee.’

Canonical causative with an inanimate causer (p.c.)

- (171) Vitsi nauratti minua.
 joke.NOM laugh-CAUS-PST I-PART
 a) ‘The joke made me laugh.’
 b) ‘The joke made me feel like laughing.’

Interpretation of the canonical causatives with inanimate causers seems to depend on whether the event is interpreted as actualized or not. Thus, when the event is interpreted as actualized, either interpretation is possible, as in (172). On the other hand, when the event is interpreted as non-actualized, the canonical causative assertion is

unacceptable (173a), and the causative assertion with the modal necessity meaning arises as the only possible interpretation (173b). We therefore conclude that only the canonical causative interpretation involves actuality entailment, while the causative interpretation with the modal necessity meaning does not, and is therefore compatible with both actualized and non-actualized events.

Canonical causative with an inanimate causer, actualized event (p.c.)

- (172) Vitsi nauratti minua, ja nauroin.
 joke.NOM laugh-CAUS-PST I-PART, and laugh.1SG.PST
- a) 'The joke made me laugh, and I laughed.'
- b) 'The joke made me feel like laughing, and I laughed.'

Canonical causative with an inanimate causer, actualization denied (p.c.)

- (173) Vitsi nauratti minua, mutta en nauranut.
 joke.NOM laugh-CAUS-PST I-PART, but not.1SG laugh.SG.PST
- a) *'The joke made me laugh, but I did not laugh.'
- b) 'The joke made me feel like laughing, but I did not laugh.'

The source of origin of the modal necessity meaning which occurs in Finnish causatives illustrated above is unclear. To the best of my knowledge, such examples have not previously been discussed in the literature. Under the analysis advocated in this dissertation, modal meanings are expressions of causal relations, and are therefore commonly found along with the causative meanings. This was demonstrated in the

previous section, using evidence from the Italian FI causatives, in which the causative assertion was accompanied by the modal presupposition. Indeed, the canonical causatives in Finnish also seem to involve a modal presupposition. Presence of such a presupposition in canonical causatives is demonstrated in (174) and (175) below, which show that the modal necessity presupposition cannot be cancelled without creating a contradiction.

Canonical causative with an inanimate causer, modal presupposition denied (p.c.)

(174)??Laulu laula-tta-a minu-a, mutta minua ei
 song.NOM sing-CAUS-PST I-PART, but I-PART neg.1SG

laulattanut.

sing-PAST-PTC

‘The song made me sing, but I did not feel like singing (at the moment of singing).’

Canonical causative with an inanimate causer, modal presupposition denied (p.c.)

(175)??Vitsi naura-tt-i minu-a, mutta minua ei
 joke.NOM laugh-CAUS-PST I-PART, but I-PART neg.1SG

aurattanut.

laugh.PAST-PTC

‘The joke made me laugh, but I did not feel like laughing (at the moment of laughing).’

The data discussed in this section therefore seem to point to the following conclusion. Canonical causatives in Finnish involve a modal necessity presupposition and the actuality entailment. When the causer in the canonical causative construction is inanimate, actuality entailment is lost, in which case the modal necessity arises as the new entailment accompanying the asserted causative proper meaning. In other words, when the statement that the eventuality occurs (i.e., actuality entailment) becomes unavailable, a new statement about the conditions for its actualization (i.e., the modal necessity entailment) arises. This situation was illustrated in (173b) above.

The canonical causatives, which were discussed in this section, involve an overtly expressed controller in their syntax and consequently assert causative meaning. Even when the controller is an inanimate entity, the asserted meaning is essentially causative (with or without the modal entailment). However, this situation is contrasted by the desiderative causatives, which I discuss in the following section. I will propose that in this type of Finnish causatives, causative assertion fails to obtain, and the modal necessity meaning, whose presence in the canonical causatives was identified above, arises as the new assertion. I will argue that the factor determining this change in meaning is lack of the overtly expressed controller in their syntax. Evidence from the canonical causatives and the desiderative causatives in Finnish therefore provides support for my claim that causative assertions arise when the controller is overtly expressed, while the absence of an overtly expressed controller yields modal assertions (Claim 3). I will further show that the desiderative causatives involve only causativized unergative predicates, in which the external argument is the obligatory argument of the causative formation and therefore participates in the causal relation. In contrast, desiderative

causatives cannot involve causativized transitive predicates, in which the external argument is optional and therefore does not take part in the causal relation (see previous section, examples (167) and (168)). These data therefore provide further evidence for my claim that modal meanings arise from causal relations between the controller and the agent, and are consequently found only in those constructions in which the agent is involved in the causal relation (Claim 2).

6.2.2 Finnish desiderative causatives

Desiderative causatives are a particular type of Finnish morphological causatives which lack an overtly expressed causer (i.e., controller) in their syntax and assert modal necessity meaning. Finnish desiderative causatives thereby contrast with canonical causatives, which occur with an overtly expressed causer and assert causative proper meaning (with or without the modal necessity entailment). Examples below illustrate this point.³⁸

Canonical causative, unergative predicate (p.c.)

(176) Olut pissattaa minua.

beer.NOM pee-CAUS-3SG I-PART

a) ‘Beer makes me pee.’

b) ‘Beer makes me have to pee.’

³⁸ These causatives are also known as the *experiencer causatives* (Nelson, 2000). The label *desiderative causatives* is borrowed from Pytkäinen (2002).

Desiderative causative, unergative predicate (p.c.)

- (177) Minua pissattaa.
 I-PART pee-CAUS-3SG
 ‘I need to pee.’

Canonical causative, unergative predicate (p.c.)

- (178) Vitsi naurattaa minua.
 joke.NOM laugh-CAUS-3SG I-PART
 a) ‘A joke makes me laugh.’
 b) ‘A joke makes me feel like laughing.’

Desiderative causative, unergative predicate (p.c.)

- (179) Minua naurattaa
 I-PAR laugh-CAUS-3SG
 ‘I feel like laughing.’

The desiderative causatives illustrated above express the same modal meanings of need, desire and disposition as the canonical causatives with which they are contrasted. However, because the controller in desiderative causatives is implied, rather than overtly expressed, the modal necessity asserted by the desiderative causatives is understood as arising due to some internal circumstances (and is therefore classified as the participant-internal necessity).

Crucially, the desiderative causatives occur only with unergative predicates, as in (177) and (179) above, while transitive predicates can occur in this type of causative construction only if they are used intransitively (Nelson, 2000: 171). Such a verb is consequently causativized following the rules of the unergative causativization. For example, when the transitive predicate illustrated in (180) below is causativized and used in the desiderative causative construction in (181), the causee agent appears with the partitive, rather than the adessive case, while the accusative object is omitted.

Transitive predicate (Nelson, 2000: 171)

(180) Hän kirjoitti kirjeen.
s/he.NOM write-PAST.3S letter-ACC
'S/he wrote a letter.'

Desiderative causative, intransitively used transitive predicate (Nelson, 2000: 171)

(181) Häntä kirjoitutti.
s/he-PAR write-CAUS-PAST.3SG
'S/he felt like writing.'

On the proposal put forward in this dissertation, which holds that the modal meanings arise from causal relations between the controller and the agent, the restriction on the desiderative causative formation with respect to the transitivity of the predicate is as expected. Specifically, the modal necessity meaning arises only when the causee agent occurs as the obligatory argument of the predicate and therefore participates in the causal

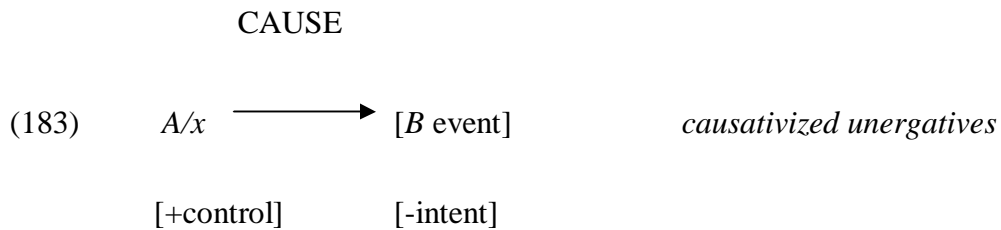
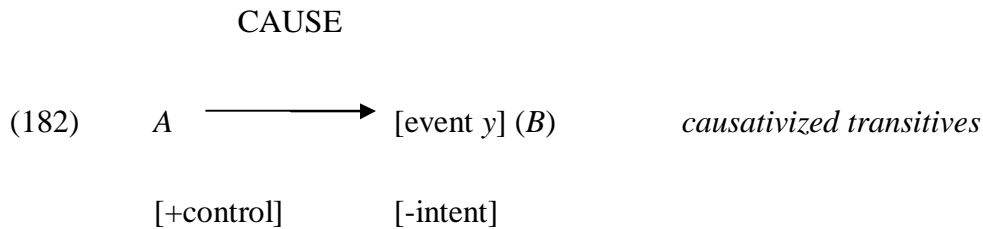
relation (as in causativized unergative predicates). In contrast, when the causee agent is an optional oblique, and consequently does not participate in the causal relation (as in causativized transitive predicates), the modal necessity meaning does not arise. The desiderative causatives therefore occur only with causativized unergative predicates, which express the right type of causal relation that gives rise to the modal necessity meaning.

Summing up, evidence presented in this section indicates that the modal necessity meaning in the desiderative causatives arises in the same way as in the canonical causatives discussed in the previous section, i.e., from the causal relation between the controller and the causee agent. In canonical causatives, the modal necessity arises as the entailment when the original actuality entailment fails to obtain. This change in meaning occurs due to the inanimacy of the controller, which is sometimes interpreted as affecting the ability of the controller to achieve the result – as evidenced by the optional loss of the actuality entailment. In desiderative causatives, on the other hand, the modal necessity arises as the asserted meaning when the original causative assertion fails to obtain. This change in meaning occurs due to the lack of the overtly expressed controller in the syntax of the desiderative causative construction.³⁹

The distinction between causal relations expressed by the canonical causatives with transitive and unergative predicates in Finnish is represented in (182) and (183) below. Upper case *A* and lower case *x* stand for the controller, with the upper case *A*

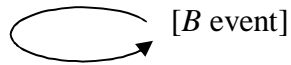
³⁹ Previous accounts of the modality in the desiderative causatives in Finnish include the following. Within the Generativist framework, Pylkkänen (2002) assumes that the desiderative causatives involve an extra syntactic head with a null morphological realization carrying the desiderative meaning. On the proposal put forward in Nelson (2000), the “feel-like” meaning in this type of causative construction follows from the experiencer theta-role born by the partitive-marked causee agent. The causee agent consequently experiences, rather than performs the predicated event.

representing human causers and the lower case *x* representing inanimate causes. Upper case *B* represents the obligatory causee agent, while *B* in parentheses represents its optionality. Because the causee agent (i.e., *B*) in causativized transitives is optional, it is not included in the causal relation expressed by this type of causatives. Lower case *y* stands for an inanimate patient. The causal relations expressed by the canonical causatives illustrated in (182) and (183) are further compared with the causal relation expressed by desiderative causatives in (184). The curved arrow on this diagram represents that the asserted modal necessity meaning is created by the conditions which arise internally to the causee. Note that the control over the causal relation is attributed to these internal conditions, which remain implied, rather than overtly expressed.



(184)

CAUSE



desiderative causatives

(internal necessity)

[+control]

[-intent]

6.3 Interim conclusion

Evidence from the desiderative causatives and the canonical causatives in Finnish discussed in the previous section, as well as evidence from the Italian *fare* causatives discussed in Section 6.1., demonstrate that the modal meanings arise along with the causative meanings, in the same morphosyntactic environments expressing a causal relation between the controller that controls the event, and the agent who lacks control over it. Specifically, the Italian FI causatives were shown to involve a modal necessity presupposition which arises together with the causative proper assertion, both within the single reading of the same causative construction. Similarly, evidence from the morphological causatives with unergative predicates in Finnish demonstrates that this type of causatives always involve the modal necessity meaning. Because the modal necessity meaning in this type of Finnish causatives can be presupposed or entailed along with the causative proper assertion, and can even arise as the asserted meaning when the causative proper assertion fails to obtain, these data constitute a particularly compelling evidence for the semantic relationship between the causative and the modal meanings. Moreover, since modal meanings which arise in the Italian causatives and the causatives

in Finnish always convey necessity, rather than possibility, these data provide evidence that the causative proper meaning, which is expressed by the causative constructions in these languages, and the modal necessity meaning, which was shown to arise along with it, both involve the same type of causal relation representing the concept of CAUSE. These data therefore support my claim that the causative and the modal meanings arise from the same underlying concepts (in this case CAUSE), and are therefore semantically related (Claim 1).

Furthermore, the modal necessity meaning was shown to arise only when the causee agent is the obligatory argument of the predicate, and is therefore involved in the causal relation. This was evidenced by the Italian *fare* causatives, which give rise to the modal necessity meaning only in the FI causatives, but not in the FP causatives. Similarly, the morphological causatives in Finnish were shown to give rise to the modal necessity meaning only with unergative predicates, but not with transitive predicates. These data therefore provide evidence for my claim that the causative and modal meanings involve a causal relation between the controller and the agent (Claim 2).

Finally, the overt expression of the controller (i.e., the causer) was shown to be the crucial factor in determining whether a construction receives a causative or a modal assertion. This was evidenced by the canonical causatives in Finnish, which give rise to the causative proper assertion, and the desiderative causatives in Finnish, which give rise to the modal necessity assertion. Lack of intentionality of the controller, on the other hand, was shown not to preclude the asserted causative meaning, but rather optionally cancel actuality entailment, in which case the modal entailment arises. This was demonstrated using data from the canonical causatives with inanimate causers in Finnish.

These data therefore support my claim that the overt presence of the controller yields a causative assertion, while the absence of the overtly expressed controller yields a modal assertion (Claim 3). Table 9 below summarizes evidence presented in this Chapter.

Table 9. Evidence for a semantic relationship between causative and modal meanings provided by causative constructions

	Overt Controller	Obligatory Agent	Assertion	Presupposition
Italian FIs	Yes	Yes	causative	modal
Italian FPs	Yes	No	causative	none
Finnish caus. unergatives	Yes	Yes	causative	modal*
Finnish caus. transitives	Yes	No	causative	none
Finnish desideratives	No	Yes	modal	none

*Asterisk indicates that modality is either presupposed or entailed.

The modal necessity meaning in the Italian and Finnish causatives is interpreted as arising due to some factors which reside either internally or externally to the causee agent.⁴⁰ Both in Italian FI *fare* causatives, and in Finnish canonical causatives, these factors are identified with the overtly expressed controller (i.e., the causer). Due to the syntactic presence of the controller, the asserted meaning in Italian FI causatives and Finnish canonical causatives with unergative predicates is causative, while the modal necessity occurs as a presupposition. In Italian, this presupposition is most readily

⁴⁰ Recall that in modality, the controller (i.e., the source of modality) is implied, and is therefore contextually determined (Chapter 5).

observed in causatives in which the controller is an intentional human causer. The necessity presupposition in the Italian FIs is consequently interpreted as obligation (i.e., *deontic* external necessity). In Finnish, on the other hand, the necessity presupposition is most readily observed in causatives in which the controller is an inanimate (and therefore inherently unintentional). The necessity presupposition in Finnish causatives discussed in section 5.2 is consequently interpreted as arising from external factors which are unrelated to humans and their laws of social interaction (i.e., *non-deontic* external necessity). However, in Finnish desiderative causatives, in which the controller refers to some unspecified circumstances and is consequently not overtly expressed, causative proper assertion fails to obtain, and the modal necessity arises as the asserted meaning. Since the controller of the causal relation expressed by desiderative causatives is implied, the modal necessity is interpreted as arising due to some factors which are internal to the causee agent (i.e., internal necessity).

CHAPTER 7

EVIDENCE FROM ANTICAUSATIVE CONSTRUCTIONS

The supporting evidence for the proposed semantic relationship between causation and modality which I discussed in the previous chapter was provided by different types of causative constructions. In this chapter I continue my discussion of Serbian dative anticausatives, which give rise to the accidental causative meaning and the modal necessity meaning, as determined by the lexical semantics of the predicate. Because causative and modal meanings in Serbian dative anticausatives arise as two interpretations of the same morphosyntactic construction, these data provide further support for my claim that the causative and modal meanings are semantically related (Claim 1). Moreover, because causative and modal meanings do arise in anticausative constructions, in association with the concept of CAUSE, these data also provide independent evidence for the presence of this concept in the semantic representation of anticausatives.

At the beginning of this chapter I continue my discussion of anticausative predicates which I began in Chapter 4 (Section 4.2) and propose a modal account of these predicates (Section 7.1). I then demonstrate the data from Serbian anticausatives which seem to corroborate the data from Modern Greek, indicating a presence of the implied controller in the anticausative construction (Section 7.2). I then continue my discussion of Serbian dative anticausatives (Sec, 7.3).

7.1 Anticausatives and modality

In Chapter 4 (Section 4.2.4), I presented a recent proposal stating that anticausative verbs involve an implied external argument, while at the same time indicating lack of agency (Alexiadou, Anagnostopoulou and Schäfer, 2006; Kallulli, 2007). I suggested that this situation should be viewed in terms of control. On this view, anticausatives indicate lack of agent control due to the presence of an implied controller. Since the semantic notion of agent crucially involves control over the event, anticausatives consequently indicate lack of agency.

Moreover, because anticausatives involve an implied external argument (i.e., the controller), they also involve the causative component (i.e., CAUSE) in their semantic representation (e.g., Chierchia, 1989/2004; Levin and Rappaport Hovav, 1995; Kratzer, 2005; Alexiadou, Anagnostopoulou, and Schäfer, 2006; Kallulli, 2007; and Koontz-Garboden, 2009). Anticausative predicates therefore convey a causal relation involving the controller and the causee patient, precisely like the causative predicates with which they alternate. Causal relations expressed by causative and anticausative predicates are represented below. As indicated by the contrast between (185) on the one hand, and (186) and (187) on the other, the main difference between causal relations expressed by causative and anticausative predicates is that the former involves an overtly expressed controller (i.e., the causer), while the controller in anticausative predicates is implied. Representations in (186) and (187) demonstrate the difference between anticausatives which occur due to external factors, as in the sentence *The window broke from the explosion*, and those which occur due to internal factors (i.e., spontaneously, or “by

itself’). Finally, parentheses in (187) stand for the optionality of this constituent, while the asterisk in front of *A* stands for the requirement that the causer is nonagentive.

(185) CAUSE

A/x \longrightarrow [event y] *causative*


[+control] [-intent]

(186) CAUSE

\longrightarrow [event y] (*A/x) *anticausative (external factors)*

[+control] [-intent]

(187) CAUSE

 [event y] *anticausative (internal factors)*

[+control] [-intent]

Building on the account of anticausatives described above, I would like to propose further that, because anticausatives involve the concept of CAUSE in their meaning, they also involve a modal necessity presupposition which was independently shown to arise in association with this causal concept (Chapter 6). This presupposition conveys a necessity with respect to the actualization of the event (i.e., the occurrence of

the change of state) due to some unexpressed factors which are beyond control of the causee patient. For example, sentence “The window broke” presupposes that some unexpressed factors (such as, e.g., an explosion happening in near proximity to the window, forming a wave of air pressure high enough to overcome the resistance of the window glass), created conditions such that the event of window breaking becomes unavoidable. This presupposition tells us that the window had to break due to some external factors which are beyond control of the causee patient (i.e., *non-deontic* external necessity). Given the particular context of a nearby explosion described above, the existence of the necessity presupposition cannot be cancelled without creating a contradiction. Thus, everything else being equal (i.e., under the assumption that nothing else intervenes), the sentence in (188) becomes semantically odd if the necessity presupposition is denied.

Anticausative predicate, modal presupposition denied

(188) ??The window broke, but it did not have to break.

The modal necessity presupposition in anticausatives is argued to arise in association with the presence of the concept of CAUSE in their semantic representation. Because this concept is traditionally equated with the notion of causation, it is commonly held that the presence of CAUSE always yields a causative meaning. However, evidence from the Finnish causatives presented in Chapter 6 demonstrates that the concept of CAUSE is associated with the notion of modality just as much as it is associated with the notion of causation, and that it gives rise to causative assertions only in those causal

relations in which the controller is overtly expressed. In contrast, absence of the overtly expressed controller was linked to the absence of the causative interpretation of CAUSE, as in, e.g., desiderative causatives. Based on this evidence, we would expect that anticausatives, which similarly lack an overtly expressed controller, fail to obtain a causative assertion. Indeed, this expectation is borne out, as anticausatives assert change of state, rather than the causative meaning, and presuppose modal necessity meaning (as demonstrated in (188) above). What anticausatives involve in their semantic representation (I propose) therefore seems to be modality, rather than causation. The fact that anticausatives do not assert modality indicates that the lexical semantics of the causative predicates precludes modal assertion by contributing the change-of-state meaning.

This view is indirectly supported by the observation made in Piñón (2001: 287) with respect to the ability of inchoative, here anticausative, verbs to be modified by the *by itself* phrase (in the sense of ‘without outside help’), as in *The door opened by itself*. According to Levin and Rappaport Hovav (1995:89), this phrase identifies the cause with the theme of an inchoative verb, thereby providing evidence that inchoative verbs are semantically dyadic. However, as pointed out in Piñón, inchoatives with the *by itself* phrase lack the predicted causative interpretation, as the above example does not mean that the door did something that caused it to open. On the modal account of anticausatives, however, this is as expected. If the implied cause is interpreted as the source of modal necessity, then the *by itself* phrase identifies the theme of the inchoative verb with the source of modality, rather than the cause. Modification with the *by itself*

phrase therefore tells us that, some conditions existed internal to the theme, i.e., *the door*, making the actualization of the event of the door opening necessary.⁴¹

The “modal” approach to anticausatives proposed above has an important implication on the debate related to the presence of causation in the semantic representation of anticausative predicates (see Chapter 4, Section 4.2.4). Namely, since both causation and modality are argued to arise from the same underlying concept of CAUSE, the “modal” approach to anticausatives proposed in this section enables us to maintain the presence of this concept in the semantic representation of anticausatives, while at the same time dispensing with the presence of causation. This approach to anticausatives therefore offers a new perspective on this debate and, in a way, reconciles the two opposing accounts of the semantic nature of anticausatives, as represented by, e.g., Dowty (1979) and Levin and Rappaport Hovav (1995).

In the following section I continue to explore the role of the lexical meaning of the predicate on the interpretation of anticausative structures expressing causal relations. I show that the lexical semantics of the predicate figures not only as the contributor of the asserted meaning when the causative assertion fails to obtain (as is the case in anticausative predicates discussed above), but also as the factor determining whether a causative or a modal assertion arises.

⁴¹ Note that on this account, the *from*-phrase in the English sentence *The window broke from the explosion* also identifies the source of modality, thus capturing the intuition expressed in the traditional view that the *from*-phrase identifies the source, rather than the cause of the change of state. However, in contrast to the traditional view, I suggest that the *from*-phrase is the syntactic expression of the implied external argument, rather than an adjunct (following Alexiadou, Anagnostopoulou and Schäfer, 2006 and Kallulli, 2007).

7.2 Anticausatives in Serbian

I begin my discussion of Serbian data by presenting basic facts about anticausative predicates in this language. Similar to other languages, anticausatives in Serbian do not have an overtly expressed argument in their syntax, and denote change of state which occurs spontaneously. This is morphologically marked by the morpheme *se*. Examples (189) and (190) below illustrate the causative and the anticausative form of the verb *break* in Serbian.

Causative predicate

- (189) Marko je slomio vaznu.
Mark AUX PERF-break.PRS.3.SG vase.ACC.SG
'Mark broke the vase.'

Anticausative predicate

- (190) Vazna se slomila.
vase.NOM SE PERF-break.FEM.SG
'The vase broke.'

Serbian anticausatives seem to provide further evidence for the claim that anticausative predicates involve an implied external argument (Alexiadou, Anagnostopoulou, and Schäfer, 2006; Kallulli, 2007). Thus, similar to Greek (see Section 4.2.5), implied external arguments in Serbian – agents, as well as causers – can be overtly expressed in the same type of the oblique phrase introduced by the preposition *od* 'from'.

For example, Serbian anticausatives can license an oblique *from*-phrase specifying that the event was caused by a cause (191) or “by itself” (192).

Anticausative predicate with the *from* phrase indicating cause

- (191) Prozor se slomio od promaje.
window.NOM SE PERF-break.MASC.SG from draft
‘The window broke from the draft.’

Anticausative predicate with the *from* phrase indicating a spontaneous event

- (192) Prozor se slomio sam od sebe.
window.NOM SE PERF-break.MASC.SG alone from self
‘The window broke by itself.’

The same oblique phrase introduced by the preposition *od* ‘from’ is used to express the implied agent in the passive construction, although this time with a more cumbersome shape *od strane* ‘on the part of’ (193). In contrast to passives, anticausative predicates cannot occur with this phrase identifying an intentional human agent in control of the event (194).

Passive construction with the *from* phrase indicating the agent

- (193) Zakon je donešen od strane vlade.
Law.NOM AUX.3.SG pass.PART.MASC.SG from the.side.of government
'The law was passed by the government.'

Anticausative construction with the *from* phrase indicating the agent

- (194) *Prozor se slomio od strane vladinih
window.NOM SE PERF-break.MASC.SG from the.side.of government's
pristalica.
supporters.GEN
'The window broke by the supporters of the government.'

These data seem to point to the same conclusion as the Greek data discussed in Chapter 4 (section 4.2.5), namely, that anticausatives imply an external argument with control, while indicating lack of agency (Alexiadou, Anagnostopoulou and Schäfer, 2006; Kallulli, 2007).

Viewed in terms of control, as suggested in section 4.2.5., I would like to propose that Serbian anticausatives indicate lack of agent control (and consequently lack of agency) due to the presence of an implied controller. The morpheme *se* in Serbian anticausatives expresses this situation. On the “modal” account of anticausatives proposed in the previous section, anticausatives express a causal relation between an implied controller and the patient. Because they lack an overtly expressed controller, anticausatives receive a change of state assertion from the lexical meaning of the

predicate, while the causal relation gives rise to the modal necessity presupposition which is associated with the concept of CAUSE. This presupposition conveys a necessity with respect to the actualization of the event (i.e., occurrence of the change of state) due to some unexpressed factors which are beyond control of the patient. As indicated by the morpheme *se*, these factors are nonagentive (i.e., they involve a cause, natural forces or circumstances).

7.3 Evidence from the dative anticausatives in Serbian

In this section I continue my discussion of the dative anticausative construction in Serbian, a special type of anticausative formation which occurs with the dative external argument and receives a causative or a modal assertion, depending on the lexical semantics of the predicate. Because causative and modal assertions arise as two interpretations of the same morphosyntactic construction, these data provide further support for the claim that the causative and modal meanings are semantically related (Claim 1).

In the remainder of this section I discuss the proposed anticausative structure with the external argument (Section 7.3.1), justify the presence of the anticausative semantics in the dative anticausative construction (Section 7.3.2) and briefly discuss interpretation of the dative anticausative construction.

7.3.1 A dyadic anticausative structure with the external argument

In Chapter 2, I proposed that the dative anticausative construction has a dyadic anticausative structure which involves the external argument and the anticausative

semantics indicated by the anticausative morpheme *se*. Although this proposal is not standard, this kind of construction has already been attested in, e.g., Malagasy.

According to Travis (2005), Malagasy predicates marked with the telic unaccusative prefix *tafa* may realize the external argument, as illustrated in below. Interestingly, this construction gives rise to the accidental or uncontrolled occurrence (195) and the modal possibility (i.e., *manage to*) meanings (196).

Malagasy, telic unaccusative with the accidental interpretation

(195) Tafapetraka aho nahare ilay vaovao.
TAFa.sit 1.SG PST.A.HA.hear that news
'I sat in spite of myself on hearing the news.'

Malagasy, telic unaccusative with the accidental interpretation

(196) Tafavory ny mpampianatra ny ankizy.
TAFa.meet.GEN DET teacher DET children
'The teacher managed to gather the children.'

I believe that the availability of the external argument in anticausative predicates follows from the nature of the proposed anticausative semantics, which is in this dissertation taken to indicate lack of agent control due to the presence of an implied controller. Such a definition of anticausative semantics precludes the syntactic expression of the controller as the external argument (because it is implied), but not the syntactic expression of the agent who lacks control over the event. This is exactly what I argue

occurs in dative anticausatives in Serbian. On the analysis proposed in this dissertation, Serbian dative anticausatives are dyadic anticausative structures which combine the presence of the external argument with the presence of the anticausative morphology.

As we have seen in Chapter 3, Kallulli (2006) proposed a similar dyadic unaccusative structure in which the dative participant is the internal argument which raises to the external argument position. Recall that Kallulli further proposed that the theta-roles borne by the external arguments are functions of theta-features in little *v*. Similar to Kallulli, I assume that the theta-role borne by the external argument is a cluster of properties among which control seems to be among the most crucial ones. As the data presented in this dissertation have shown, even when the agent lacks control over the predicated event, he can still initiate and perform that event.

7.3.2 Justifying the anticausative semantics

Recall that on the proposal put forward in this dissertation dative anticausatives indicate lack of agent control due to the presence of an implied controller. This is indicated by the morpheme *se*. Consequently, dative anticausatives express a causal relation between the implied controller and the agent argument, i.e., the dative participant.

In Chapter 2, we saw some evidence that the dative participant is the external argument of the predicate. In the following section I provide arguments that the dative anticausative construction is semantically anticausative.

7.3.2.1. Selectional restrictions

Despite the presence of the external argument, the semantics of the dative anticausative construction is essentially anticausative. This conclusion might seem trivial, as dative anticausatives and canonical anticausatives in Serbian involve the same morphology, i.e., the morpheme *se*. However, this morpheme covers a wide range of uses, such as reflexive, reciprocal, middle, impersonal passive, to name just a few, and its function in these two types of constructions might consequently be different (see Chapter 2, Section 2.5). Nevertheless, I argue that the morpheme *se* in dative anticausatives performs the same function as in anticausative predicates.

One kind of evidence for the view that the dative anticausatives are indeed semantically anticausative comes from the selectional restrictions on the class of predicates which may occur in this construction. Specifically, those semantically causative predicates which do not participate in the causative/anticausative alternation cannot occur in the dative anticausative construction either. Recall that causative predicates, such as ‘cut’ and ‘assassin’, require to be initiated by an intentional agent in control of the event. Such predicates are therefore incompatible with the anticausative semantics, which was claimed to indicate lack of agent control due to the presence of a controller which is distinguishable from the agent. Inability of such ‘non-alternating’ predicates to occur as dative anticausatives therefore confirms the anticausative nature of this construction. Example (197) below demonstrates inability of the verb ‘to cut’ to occur as an anticausative predicate, while example (198) demonstrates its inability to occur in the dative anticausative construction.

Anticausative construction with the non-alternating causative predicate

- (197) *Hleb se isekao.
bread.NOM.MASC.SG SE PERF-cut.MACS.SG
'The bread cut.'

Dative anticausative construction with the 'non-alternating' causative predicate

- (198) *Marku se isekao hleb.
Mark.DAT SE PERF-cut.MACS.SG bread.NOM.MASC.SG
'Mark accidentally cut the bread.'

7.3.2.2 The accidental causative meaning

The view that dative anticausatives are semantically anticausative despite the presence of the external argument (i.e., the dative participant) is additionally suggested by the presence of the notion of accident in their meaning. Namely, according to evidence from the experimental psychology presented in Wolff (2003), in addition to being unintentional, events with accidental outcomes involve one more component in their meaning – a reference to a preceding event which is, in fact, intentional. When the initiator of such an intended event loses control over it, the outcome is interpreted as accident (Wolff, 2003: 38). Borrowing an example from Wolff, imagine a scenario in which a man, e.g., *Mark*, is using a hammer to nail something down, when he inadvertently loses his grip, and the hammer flies through the air and breaks the kitchen window. As demonstrated in Wolff, this type of causal situation, involving an intended

event and an unintended outcome, is readily described as direct causation using a single clause, as in *Mark accidentally broke the window* (see Wolff, 2003 for further details).

I would like to point out here that the situation described by Wolff implies the existence of some interfering circumstances (e.g., *Mark's* hands sweating or someone bumping into him) that make him unable to perform the original event of hammering and therefore lose control over it. Simultaneously these circumstances create the necessity conditions that make actualization of the new, unintended event of the window breaking unavoidable (e.g., *Mark* losing his grip and the hammer flying through the air in the direction of the window, with the certain velocity, *etc.*). The interfering circumstances thereby emerge as the new controller over the event of 'Mark breaking the window'.

In view of the above characterization of the accidental meaning, its presence in the overall denotation of Serbian dative anticausatives justifies the proposed anticausative account of their semantics in the sense that this construction indicates lack of agent control due to the presence of an implied controller which is distinguishable from the agent. On this account, the implied controller in dative anticausatives refers to the interfering circumstances, which create the necessity for the occurrence of the predicated event. The morpheme *se* in dative anticausatives therefore indicates that the dative participant is not in control of the event, because the event is controlled by the circumstances.

The availability of the external argument in dative anticausatives follows from our characterization of the anticausative semantics, which only states that the controller is implied, and therefore not overtly realized in the syntax, but says nothing about the overt syntactic realization of the agent. On this view, anticausatives are not incompatible

with the presence of the external argument *per se*, only with the overt expression of the controller as the external argument of the anticausative construction. The agent who lacks control over the event can therefore be overtly realized as the external argument of the anticausative construction. This is exactly what I argue occurs in Serbian dative anticausatives under the two interpretations which are discussed in this Chapter. I therefore propose that this construction involves a dyadic anticausative structure with the external argument and the anticausative morphology.

7.3.2.3 The modal necessity meaning

Anticausative semantics of the dative anticausative construction is additionally suggested by the fact that dative anticausatives with agentive predicates assert a modal meaning. Recall that in force-dynamics theory of causation modal meanings are seen as the expressions of causal relations (Talmy, 1988; 2000). Recall further that the source of modality in modal meanings is implied, and its reference is determined by the context (e.g., legal norms, other people, external or internal circumstances, etc.). In Chapter 5, I suggested that modality should therefore be understood in terms of control. On this view, causal relations in modal meanings involve an implied controller, which refers to the source of modality, and the agent, which consequently lacks control over the modal situation. Because dative anticausatives with agentive predicates assert a modal meaning, they consequently involve the same type of causal relation between an implied controller, and the agent who lacks control over the modal situation. Since the anticausative semantics was proposed to express this situation, it follows that the dative anticausatives with agentive predicates are semantically anticausative.

7.3.3 Interpretation of the dative anticausative construction

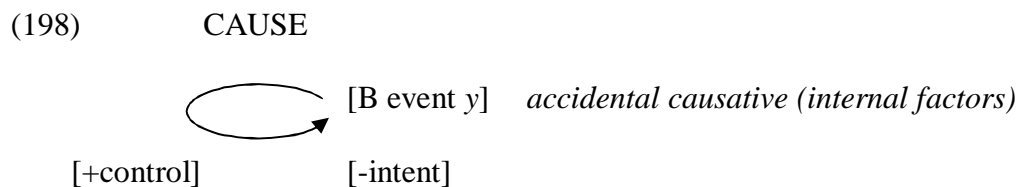
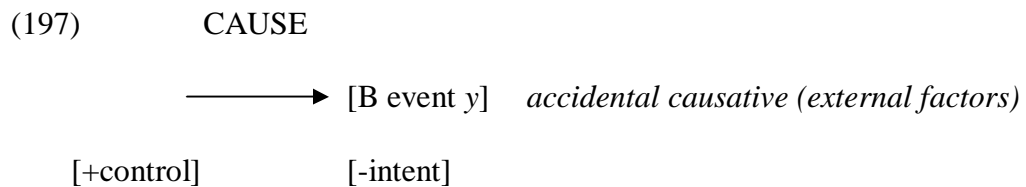
Evidence presented in this Chapter indicates that both dative anticausatives with the modal necessity interpretation and the dative anticausatives with the accidental causative interpretation involve a causal relation between the implied controller and the dative participant who lacks control over the event. However, even though the controller in this construction is implied, rather than overtly expressed, the asserted meaning is modal only when the predicate is agentive, while causative predicates yield the accidental causative assertion. Throughout this dissertation I claimed that this is so because lexical semantics of the causative predicates facilitates causative interpretation. I claimed that the causative predicates, which make reference to change of state and do not specify the type of initiator in their lexical meaning, are compatible with the interpretation on which the dative participant is an unintentional initiator of the event which is controlled by the implied circumstances. The construction is consequently interpreted as the accidental causative.⁴²

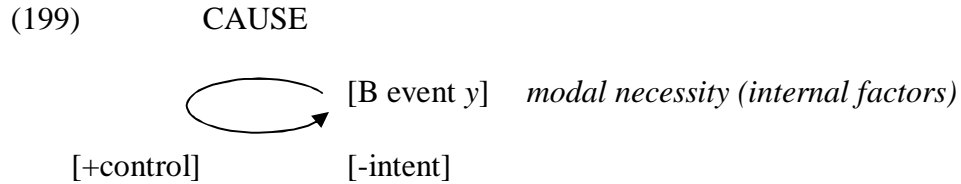
However, agentive predicates, which make no reference to change of state in their meaning and require to be initiated by an intentional agent in control over the event, do not facilitate such an interpretation. These predicates are therefore incompatible with the interpretation on which the dative participant is an unintentional initiator of the event which is controlled by the implied circumstances. Since agentive predicates make no reference to change of state in their lexical semantics, the modal necessity meaning,

⁴² Note that this description of the accidental causative meaning is a simplification, as it does not discuss the change in control, which is crucially involved in this meaning (Recall that the controller of the original event is the dative participant, while the controller of the predicated event with the accidental outcome is implied, and refers to the interfering circumstances). However, the exact implementation of this component of the accidental meaning does not bear directly on my claims, and is therefore beyond the scope of this dissertation.

which results as the interpretation of the causal relation between the implied controller and the dative participant, arises as the only possible assertion.

Evidence presented above indicates that dative anticausatives with causative accidental interpretation and dative anticausatives with modal necessity interpretation express causal relations which are essentially the same. This is represented in (197) through (199) below. In both cases, the causal relation involves an implied controller and the dative participant as the mediating agent of the causal relation, which is represented using the upper case *B*. Representations in (197) and (198) indicate that the implied controller (i.e., the interfering factors) in dative anticausatives with the causative accidental representation may arise externally or internally to the dative participant (i.e., *B*), while in the dative anticausatives with the modal necessity interpretation the implied controller is internal to the dative participant (unless otherwise suggested by the context).





7.4 Interim conclusion

In this Chapter, I argued for a semantic relationship between causative and modal meanings using evidence from anticausative constructions. Recall that in Chapter 4, I proposed that the anticausative semantics indicates lack of agent control due to the presence of an implied controller. I took the presence of an implied controller as an indication that anticausative predicates involve a causative component (i.e., CAUSE) in their meaning, and consequently express a causal relation between the implied controller and the patient. In this Chapter, I showed that the anticausative predicates occur with a modal necessity presupposition. I then proposed that this presupposition arises from the causal relation, in association with the concept of CAUSE. Because the controller in this causal relation is implied, the resulting meaning is modal. Anticausative predicates are therefore taken as further support for my claim that the causative and the modal meanings arise from the same underlying causal concepts and are therefore semantically related (Claim 1).

I subsequently discussed Serbian dative anticausatives with the causative accidental interpretation and the modal necessity interpretation, and demonstrated that these interpretations arise from a single morphosyntactic structure. These data therefore provide further evidence for my claim that causative and modal meanings are

semantically related (Claim 1). I further proposed that Serbian dative anticausatives involve a dyadic anticausative structure that combines the external argument and the anticausative morphology. Dative anticausatives were further shown to be semantically anticausative in the sense that they indicate lack of agent control due to the presence of an implied controller which is distinguishable from the agent. According to my claim, dative anticausatives consequently express a causal relation between the implied controller and the dative participant who lacks control over the event. Because this causal relation involves an implied controller, it gives rise to a modal, rather than a causative meaning. With agentive predicates, which have no other meaning to contribute, this modal meaning arises as the assertion. With causative predicates, on the other hand, the modal assertion is precluded due to the lexical meaning of the predicate, and the accidental causative assertion arises. These facts are summarized in Table 8 below.

Table 10. Properties of anticausative predicates and the Serbian dative anticausatives with the accidental causative and the modal necessity interpretation

	Overt Controller	Obligatory Agent	Assertion	Presupposition
Anticausatives	No	No	change of state	modal
Serbian dative anticausatives (causative predicates)	No	Yes	accidental causative	modal
Serbian dative anticausatives (agentive predicates)	No	Yes	Modal	none

The availability of the external argument in dative anticausatives follows from our characterization of the anticausative semantics, which only states that the controller is implied, and therefore not overtly realized in the syntax, but says nothing about the overt syntactic realization of the agent. On this view, anticausatives are not incompatible with the presence of the external argument *per se*, only with the overt expression of the controller as the external argument of the anticausative construction. The agent who lacks control over the event can therefore be overtly realized as the external argument of the anticausative construction. This is exactly what I argue occurs in Serbian dative anticausatives under the two interpretations which are discussed in this Chapter. I therefore propose that this construction involves a dyadic anticausative structure with the external argument and the anticausative morphology.

CHAPTER 8

CONCLUSION AND IMPLICATIONS

8.1 Conclusion

In this dissertation I presented a unified analysis of the accidental causative meaning and the modal necessity meaning which arise as two interpretations of the dative anticausative construction in Serbian. This analysis was set within a larger claim that both causative and modal meanings involve the same underlying causal concepts of CAUSE and ENABLE, and are therefore semantically related (cf. Talmy, 1988, 2000). Using a typological approach, I showed that causative and modal meanings commonly arise in the same morphosyntactic environment, which was taken as an indication of their shared conceptual base. The semantic unification of causative and modal meanings was demonstrated using three kinds of evidence. First, modal meanings were shown to arise as presuppositions along with the asserted causative meaning. This situation was demonstrated using evidence from the Italian periphrastic causatives, and from the morphological causatives in Finnish. Second, when the causative assertion fails to obtain, modal meanings were shown to arise as the new asserted meaning. This situation was illustrated using evidence from the desiderative causatives in Finnish, a particular type of the Finnish causative construction in which the causer is not overtly expressed, but rather refers to some implied circumstances, and the causative assertion consequently does not obtain. Third, modal and causative meanings were shown to occur as two interpretations of the same morphosyntactic structure. This situation was claimed to arise in the dative anticausatives in Serbian, which assert the modal necessity meaning or the accidental causative meaning, depending on the lexical semantics of the predicate.

A situation similar to that illustrated by the Serbian dative anticausatives, in which modal and accidental causative meanings arise as two interpretations of the same construction, is also found in languages as diverse as, e.g., Albanian, Tagalog, and Lillooet Salish. The respective constructions in all these languages, as well as in Serbian dative anticausatives, involve a piece of morphology indicating lack of agent control. This fact was taken to suggest that the notion of control is somehow implicated in causative and modal meanings. Such a conclusion is supported both by the typological practice of discussing distribution of control in causative constructions (e.g., Comrie, 1981) and the approach to causation and modality advanced within the force-dynamic theory of causation (Talmy, 1988).

In view of these observations, our initial definitions of the causal concepts of CAUSE and ENABLE were restated in terms of control. These concepts were said to involve a controller which is perceived as distinguishable from the agent, and the agent who lacks control over the predicated event. Causative and anticausative constructions were identified as the morphosyntactic environments which indicate this semantic situation, because they were crosslinguistically found to give rise to causative and modal meanings. This was evidenced by the causative constructions in Finnish and Italian, by the desiderative causatives in Finnish, and by the dative anticausatives in Serbian.⁴³

⁴³ Note, however, that this analysis does not assume that the causative and modal meanings are confined to causative and anticausative constructions, but rather predicts that these meanings will occur in any morphosyntactic environment which indicates lack of agent control due to the presence of a controller which is distinguishable from the agent. This seems to be the case in, e.g. the *abilitative and involuntary action* construction in Tagalog, and in the *out-of-control* construction in Lillooet Salish, which are not anticausative in the same way as Serbian dative anticausatives, but nevertheless indicate lack of agent control due to the presence of another controller.

Furthermore, the availability of the causative assertion in such constructions was shown to depend on the overt syntactic presence of the controller. Absence of the overtly expressed controller, on the other hand, was shown to yield a modal assertion. This was evidenced by the desiderative causatives in Finnish, which involve an implied controller with an unspecified reference, and consequently fail to obtain a causative assertion. The new assertion arises from the modal meaning which was independently shown to occur in Finnish canonical causatives in the form of a presupposition.

Finally, interpretation of morphosyntactic structures indicating lack of agent control was shown to be additionally affected by the lexical meaning of the predicate. Thus, even when the controller is not overtly expressed, and the construction is consequently expected to be modal, modal assertions were shown to be overridden by the lexical semantics of causative predicates. This situation was argued to occur in Serbian dative anticausatives which, similar to Finnish desiderative causatives, involve an implied controller with an unspecified reference. Nevertheless, Serbian dative anticausatives assert the accidental causative meaning when their predicate is causative. In contrast, when their predicate is agentive, the assertion arises from the modal necessity meaning which was independently argued to occur in anticausative constructions as the expression of the concept of CAUSE. This kind of interaction between lexical semantics of the predicate and interpretation of construction indicating lack of agent control is hardly surprising, considering that the lexical meaning of the predicate contains the information on whether an intentional human controller (i.e., the agent) is required for the initiation of the event in question.

Table 11. Summary of the results

	Overt Controller [+control]	Obligatory Agent [-control]	Assertion
Causatives	Yes	Yes	causative
Anticausatives	No	No	change of state
Modals	No	Yes	modal
Italian FI causatives	Yes	Yes	causative (modal presupposition)
Italian FP causatives	Yes	No	causative (no modal presupposition)
Canonical causatives Finnish	Yes	Yes	causative (modal presupposition or entailment)
Desiderative causatives Finnish	No	Yes	modal
Dative anticausatives Serbian	No	Yes	accidental causative or modal

The research presented in this dissertation provided evidence for a unifying semantic account of causation and modality in general, as well as in Serbian dative anticausative construction. On this account, causative and modal meanings are both seen as manifestations of the split in the semantically unified notion of agency. This split results in allocation of control to a controller which is distinguishable from the agent. Under this analysis, the accidental causative meaning and the modal necessity meaning which arise in Serbian dative anticausatives result from the presence of such a controller in their semantics. There is no need for the stipulated solutions and complex syntactic

structures discussed in Chapter 2, because the modality of dative anticausatives is accounted for in a principled way. The proposed syntactic structure is a simple dyadic structure which combines the external argument and the anticausative morphology indicating a split in the semantic agent. As previously mentioned, a similar unaccusative structure with the external argument seems to be independently required to account for the Malagasy data discussed in Travis (2005), and was also argued for in Kallulli (2006).

8.2 Implications and possible directions for future research

The research presented in this dissertation seems to have multiple implications for our understanding of some very basic notions in language, such as agency and control (Section 8.2.1), as well as how the involvement of circumstances in perceived and linguistically encoded in natural language (Section 8.2.2). Evidence from Finnish causatives bears a particular significance on our understanding of how the inherent properties of controllers. e.g., animate, vs. inanimate, vs. circumstances, are seen to affect their abilities to cause an event and ensure its actualization. Another implication of the research presented in this dissertation is its bearing on our understanding of the semantics and possible syntactic structures of anticausative predicates (Section 8.2.3). At the end of this Chapter, I discuss the implications of this research on our understanding of the role of modality in statements about event actualization (Section 8.2.4).

8.2.1 Agency and control

The proposal put forward in this dissertation crucially involves the idea that the semantic notion of control can be disassociated from the agent and attributed to a

controller which is distinguishable from it. This idea is not new, and at least in some languages it seems to be the fundamental assumption involved in the expression of the category of subject. For example, according to Witherspoon (1977), an analysis of the basic transitive sentences in Navajo requires a distinction between the notions of *source of action* (i.e., the agent) and *locus of control* (i.e., the controller). Building on this observation, Klaiman (1988) argued that in Navajo (and other Apachean languages), as well as in Korean, the subject in a transitive construction converges with either the source of action (i.e., agent) or the undergoer (i.e., patient), depending on which is credited with the greater control over the denoted action. On the other hand, in languages such as Tamil, the controller and the source of action strictly converge upon subject position in basic sentences, while in classical Indo European languages (such as Greek and Sanskrit), the controller and the source of action converge often, but not invariably (Klaiman, 1988: 62-3). Based on these data Klaiman concludes that the convergence of the controller and the source of action (i.e., agent) is not a universal of language. Evidence discussed in this dissertation provides further support for an independent status of the controller. As argued in Chapter 6 and Chapter 7, even in languages in which the agent prototypically converges with the controller, the split between the two occurs on a regular basis in constructions such as causative and anticausative. However, in contrast to the situations discussed by Klaiman, in these constructions the controller does not converge with either of the core participants, but is nevertheless perceived as crucially related to the event in terms that it either causes the event actualization (in which case a causative assertion arises), or creates conditions for the event actualization (in which case a modal assertion arises). Evidence presented in this dissertation therefore demonstrates

that the agent is not an atomic notion even in languages in which the agent prototypically converges with the notion of controller.

8.2.2 Control and circumstances

Some modal meanings which were discussed in this dissertation are created by circumstances, i.e., they involve circumstances as their source of modality. These circumstances are implied, and their reference is determined by the context. In Kratzer's theory of modality, circumstances creating conditions for the event actualization are introduced into the modal meaning through the *modal base*. However, since the modal base is a unique part of the semantics of modal meanings, this implies that circumstances in non-modal meanings have to be introduced in some other way. In contrast to Kratzer, in this dissertation, circumstances are introduced into the modal meaning as the controllers of causal relations, and are therefore equally available to modal, as well as non-modal meanings in which circumstances play a part. This is important not only for the particular meanings discussed in this dissertation, but also for other meanings in which circumstances are perceived as an important factor in actualization of events, and as such commonly receive an expression in natural language (see Copley and Harley, to appear).

In this dissertation, circumstances (i.e., non-entities) are treated on par with entities as possible controllers in causative and anticausative constructions. By linking them into a causal relation, we were able to see the gradation in how *teleological capability* (Higginbotham, 1997) of the controller (causer) affects interpretation of the

causative construction.⁴⁴ Finnish causatives were particularly illuminating on this point. Specifically, we saw that, when the causer is human, the resulting assertion is causative, with the actuality entailment. When the causer is inanimate, the resulting assertion is still causative, but the actuality entailment is optionally replaced by the modal entailment, specifying the conditions on event actualization, rather than the actualization itself. Finally, when the causer refers to circumstances, causative assertion fails to obtain and the modal assertion arises. I leave the points discussed in this section for the future research.

8.2.3 Anticausatives

The analysis of Serbian dative anticausatives proposed in this dissertation bears on the issue of the semantic representation of anticausative predicates. The fact that the accidental causative meaning arises in this construction indicates that the causative component (i.e., CAUSE) is present in the meaning of anticausative predicates.⁴⁵ However, in contrast to other similar proposals (e.g., Levin and Rappaport Hovav, 1995), I suggested that CAUSE in anticausative predicates gives rise to a modal, rather than a causative meaning due to the absence of the overtly expressed controller in their syntax. Although the actual asserted meaning in anticausatives arises from the reference to change of state in the lexical semantics of their predicates, modality associated with the concept of CAUSE was shown to occur as the presupposed meaning.

⁴⁴ Teleological capability refers to the inherent qualities and abilities of an entity to participate in the predicated event.

⁴⁵ On the specific proposal made in this dissertation, according to which both causative and modal meanings arise from this concept, presence of the modal necessity meaning in Serbian dative anticausatives also indicates the presence of CAUSE in the semantic representation of anticausative structures.

The proposed “modal” analysis of anticausatives maintains the presence of CAUSE in the semantic representation of anticausative predicates, but attributes it a modal, rather than a causative interpretation. This analysis of anticausatives offers a new approach to the main issues related to this type of predicates, and in a way, reconciles the two opposing approaches with respect to the presence of the causative component in the semantics of these predicates, as exemplified by, e.g., Dowty (1979) and Levin Rappaport Hovav (1995). I leave a more in-depth analysis of anticausatives for future research.

In addition to bearing on our understanding of anticausative semantics, evidence from Serbian dative anticausatives discussed in this dissertation has important implications for our understanding of the syntax of anticausative constructions. As demonstrated in Chapter 2, Serbian dative anticausatives occur with the external argument. The availability of the external argument follows from the nature of the anticausative semantics, which is in this dissertation taken to indicate lack of agent control due to the presence of an implied controller distinguishable from the agent. Such a definition of anticausative semantics precludes the syntactic expression of the controller as the external argument (because it is implied), but not the syntactic expression of the agent who lacks control over the event. This is exactly what I argue occurs in dative anticausatives in Serbian. On the analysis proposed in Chapter 7, Serbian dative anticausatives are dyadic structures which combine presence of the external argument with the presence of the anticausative morphology. As already mentioned in Chapter 2, Kallulli (2006) came to a similar conclusion with respect to the parallel construction in Albanian (her analysis also pertains to South Slavic dative

anticausatives). One implication of this kind of analysis is in suggesting a need for a new, revised typology of possible external arguments in transitive structures (see Kallulli, 2007 for discussion of this issue).

8.2.4 Modal assertions as the last resort interpretation

In Chapters 6 and 7, I demonstrated that a lack of the overtly expressed controller results in a modal assertion. I also demonstrated that the interpretation of constructions indicating lack of agent control is additionally affected by the lexical semantics of the predicate. I showed that semantically causative predicates preclude the modal assertion, while the agentive predicates lack the ability to do so. Based on these observations, I concluded that modal assertions seem to arise as some kind of last resort interpretation, when no other assertion can be made about the predicated event. This situation leads to the conclusion that statements about event actualization (i.e., whether an event occurs) are perceived as more informative than statements about conditions on event actualization (i.e., whether the occurrence of an event is possible or necessary). On the other hand, the fact that the modal assertions arise when causative assertions fail to obtain, and can furthermore provide the “semantic seed” to rebuild a causative meaning (as in Serbian dative anticausatives with causative predicates), suggests that the conditions on event actualization – i.e., modality – are perceived as semantically more basic in the sense that they are a semantic prerequisite for the actualization of events. If true, then this situation implies that modal presuppositions represent the most basic semantic content of any kind of statement about event actualization.

REFERENCES

- Alexiadou, Artemis, Elena Anagnostopoulou and Florian Schäfer. 2006. The properties of anticausatives crosslinguistically. In Mara Frascarelli (ed.), *Phases of interpretation*, 175-99. Berlin: Mouton de Gruyter.
- Alsina, Alex. 1992. On the argument structure of causatives. *Linguistic Inquiry* 23: 517-555.
- van der Auwera, Johan and Vladimir A. Plungian. 1998. Modality's semantic map. *Linguistic Typology* 2: 79-124.
- Avrutin, Sergey and Maria Babyonyshev. 1997. Obviation in Subjunctive Clauses and AGR: Evidence from Russian. *Natural Language and Linguistic Theory* 15: 229-62.
- Belletti, Adriana and Luigi Rizzi. 1988. Psych-verbs and theta-theory. *Natural Language and Linguistic Theory* 6: 299-352.
- Bhatt, Rajesh. 2000. *Covert Modality in Non-Finite Contexts*. PhD dissertation, University of Pennsylvania, Philadelphia, PA.
- Biskup, Petr and Gerild Zybatow. 2008. Prefixation and scales. In M.Richards and A.L.Malchukov (eds.), *Scales*, 163-88. Universität Leipzig: Linguistische Arbeitsberichte 86.
- Boeckx, Cedric. 2003. *Intricacies of Icelandic Agreement*. Ms, University of Maryland/Harvard University.
- Burzio, Luigi. 1986. *Italian syntax: A government and binding approach*. Dordrecht: Reidel.

- Bybee, Joan. 1985. *Morphology: A Study of the Relation between Meaning and Form*. Amsterdam: John Benjamins.
- Bybee, Joan L., Revere D. Perkins and William Pagliuca. 1994. *The evolution of grammar: tense, aspect and modality in the languages of the world*. Chicago, IL: University of Chicago Press.
- Chierchia, Gennaro. 1989. *A semantics for unaccusatives and its syntactic consequences*. MS thesis, Cornell University, Ithaca, NY.
- Chierchia, Gennaro. 2004. A semantics for unaccusatives and its syntactic consequences. In Artemis Alexiadou, Elena Anagnostopoulou and Martin Everaert (eds.), *The Unaccusativity Puzzle: Explorations of the Syntax-Lexicon Interface*, 22-59. Oxford: Oxford University Press.
- Chomsky, Noam. 1981. *Lectures on Government and Binding*. Foris: Dordrecht.
- Chomsky, Noam. 1995. *Minimalist Program*. Cambridge, MA.: MIT Press.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In Roger Martin, David Michaels and Juan Uriagereka (eds.), *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, 88-155. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In M. Kenstowicz (ed.), *Ken Hale: A life in language*, 1-52. Cambridge, MA: MIT Press.
- Coats, Jennifer. 1983. *The Semantics of the Modal Auxiliaries*. London: Croom Helm.
- Comrie, Bernard. 1981. *Language universals and linguistic typology*. Chicago, IL: University of Chicago Press.
- Comrie, Bernard and Maria Polinsky (eds.). 1993. *Causatives and Transitivity*. Amsterdam: John Benjamins.

- Copley, Bridget. 2002. The semantics of the future. PhD dissertation, Massachusetts Institute of Technology, Cambridge, MA.
- Copley, Bridget and Heidi Harley. (to appear). An ontology for a force-dynamic treatment of events. In Bridget Copley and Fabienne Martin (eds.), *Causation in Grammatical Structures*. Oxford: Oxford University Press.
- Copley, Bridget and Philip Wolff. (to appear). Theories of causation should inform linguistic theory and vice versa. In Bridget Copley and Fabienne Martin (eds.), *Causation in Grammatical Structures*. Oxford: Oxford University Press.
- Davis, Henry, Lisa Matthewson and Hotze Rullmann. 2009. 'Out of control' marking as circumstantial modality in St'át'imcets. In Lotte Hogeweg, Helen de Loop and Andrej Malchukov (eds.), *Crosslinguistic Semantics of Tense, Aspect, and Modality*. Amsterdam: John Benjamins.
- de Hoop, Helen and Andrej Malchukov. 2008. Case-marking strategies. *Linguistic Inquiry* 39: 565-87.
- Dell, Francois. 1983. An aspectual distinction in Tagalog. *Oceanic Linguistics* 22-23: 175-206.
- Dowty, David. 1979. *Word meaning and Montague Grammar - The Semantics of Verbs and Times in Generative Semantics and in Montague's PTQ*. Dordrecht: Reidel.
- Dubinsky, Stanley. 1994. Predicate union and the syntax of Japanese causatives. *Journal of Linguistics* 30: 43-79.
- van Eijk, Jan. 1997. *The Lillooet language: Phonology, morphology, syntax*. Vancouver: University of Columbia Press.

- Folli, Raffaella and Heidi Harley. 2007. Causation, Obligation, and Argument Structure: On the Nature of Little *v.* *Linguistic Inquiry* 38(2): 197-238.
- Franks, Steven. 1995. *Parameters of Slavic Morphosyntax*. New York: Oxford University Press.
- von Stechow, Kai. 2006. Modality and Language. In Donald M. Borchert (ed.), *Encyclopedia of Philosophy – Second Edition*. Detroit: MacMillan Reference USA.
- Guasti, Maria Teresa. 1996. Semantic restrictions in Romance causatives and the incorporation approach. *Linguistic Inquiry* 27: 294-313.
- Haspelmath, Martin. 1993. Non-canonical marking of core arguments in European languages. In Alexandra Y. Aikenvald, R.M.W. Dixon, and Masayuki Onishi (eds.) *Non-canonical marking of subjects and objects* (Typological Studies in Language, 46), 53-83. Amsterdam: John Benjamins.
- Hacquard, Valentine. 2006. Aspects of Modality. PhD dissertation, Massachusetts Institute of Technology, Cambridge, MA.
- Higginbotham, James. 1997. Location and Causation. Ms, University of Oxford.
- Ippolito, Michaela. 2000. *Remarks on the argument structure of Romance causatives*. Ms, Massachusetts Institute of Technology, Cambridge, MA.
- Jackendoff, Ray. 1972. *Semantic structure*. Cambridge, MA: MIT Press.
- Kallulli, Dalina. 2006. Unaccusatives with dative causers and experiencers: a unified account. In Daniel Hole, André Meinunger and Werner Abraham (eds.), *Datives and Other Cases*, 271-301. Amsterdam: John Benjamins.

- Kallulli, Dalina. 2007. Rethinking the Passive/anticausative distinction. *Linguistic Inquiry* 38(4): 770-780.
- Klaiman, M. H. 1988. Affectedness and control: a typology of voice systems. In Masayoshi Shibatani (ed.) *Passive and Voice*, 25- 83. Amsterdam: John Benjamins.
- Kondrashova, Natalia. 1993. Agreement and Dative Subjects in Russian. In Sergey Avrutin, Steven Franks, and Liljana Progovac (eds.), *Annual Workshop of Formal Approaches to Slavic Linguistics: the MIT Meeting*, 255-85. Ann Arbor, MI: Michigan Slavic Publications.
- Koontz-Garboden, Andrew. 2007. Monotonicity at the lexical semantics-morphosyntax interface. In Emily Elfner and Martin Walkow (eds.), *Proceedings of the 37th annual meeting of the Northeast Linguistic Society*. Amherst: Graduate Linguistic Student Association.
- Kratzer, Angelika. 1981. The Notional Category of Modality. In Hans Jürgen Eikmeyer and Hannes Rieser (eds), *Words, Worlds, and Contexts: New Approaches in Word Semantics*, 38-74. Berlin/New York: Walter de Gruyter.
- Kratzer, Angelika. 1991. Modality. In Arnim von Stechow and Dieter Wunderlich (eds.), *Semantics: An International Handbook of Contemporary Research*, 639-50. Berlin/New York: Walter de Gruyter.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In Johan Rooryck and Laurie Zaring (eds.), *Phrase structure and the lexicon*, 109-137. Dordrecht: Kluwer.

- Kratzer, Angelika. 2005. Building resultatives. In Claudia Maienborn and Angelika Wöllstein-Leisten (eds.), *Event Arguments in Syntax, Semantics, and Discourse*, 178-212. Tübingen: Niemeyer.
- Kulikov, Leonid. 1993. The “second causative”: A typological sketch. In Bernard Comrie and Maria Polinsky (eds.), *Causatives and Transitivity*, 121-153. Amsterdam: John Benjamins.
- Kulikov, Leonid. 2001. Causatives. In Martin Haspelmath, Ekkehard König, Wulf Oesterreicher, and Wolfgang Raible (eds.), *Language typology and language universals: An international handbook. Vol. 2*, 886-98. Berlin: Walter de Gruyter.
- Kuno, Susumu. 1973. *The structure of the Japanese language*. Cambridge, MA: MIT Press.
- Kuroda, S.-Y. 1965. Generative grammatical studies in the Japanese language. PhD dissertation, Massachusetts Institute of Technology, Cambridge, MA.
- Lakoff, George. 1968. *Counterparts of the Problem of Reference in a Transformational Grammar*. Bloomington, IN: Indiana Linguistics Club Publications.
- Larson, Richard, Marcel den Dikken and Peter Ludlow. 1997. Intentional Transitive Verbs and Abstract Clausal Complementation. Ms, Stony Brook University and CUNY.
- Levin, Beth, and Malka Rappaport Hovav. 1995. *Unaccusativity. At the Syntax-Lexical Semantics Interface*. Cambridge, MA: MIT Press.
- Lyons, John. 1977. *Semantics*. Cambridge University Press.

- Marantz, Alec. 1984. *On the nature of grammatical relations*. Cambridge, MA: MIT Press.
- Mari, Alda and Fabienne Martin. 2007. Tense, abilities and actuality entailment. In Maria Aloni, Paul Dekker and Floris Roelfsen (eds.), *Proceedings of the Sixteenth Amsterdam Colloquium*, 151-156. ILLC/Department of Philosophy, University of Amsterdam.
- Marušič, Franc, and Rok Žaucer. 2006. On the intentional FEEL-LIKE construction in Slovenian: A case of a phonologically null verb. *Natural Language and Linguistic Theory* 24: 1093-1159.
- Malchukov, Andrey L. 1993. Adversative constructions in Even in relation to passive and permissive. In Bernard Comrie and Maria Polinsky (eds.), *Causatives and Transitivity*, 369-84. Amsterdam: John Benjamins.
- Manzini, Maria Rita 1983. On control and control theory. *Linguistic Inquiry* 14: 421-46.
- McCawley, James. 1979. On Identifying the Remains of Deceased Clauses. In J.D. McCawley (ed.), *Adverbs, Vowels, and Other Objects of Wonder*. Chicago, IL: University of Chicago Press.
- Mithun, Marianne. 1999. *The languages of native North America*. Cambridge: Cambridge University Press.
- Moore, John and David M. Perlmutter. 2000. What Does it Take to be a Dative Subject? *Natural Language and Linguistic Theory* 18: 337-416.
- Nedjalkov, Vladimir P. and Georgij G. Silnitsky. 1973. The Typology of Morphological and Lexical Causatives. In Ferenc Kiefer (ed.), *Trends in Soviet*

- Theoretical Linguistics: Foundations of Language, Supplementary Series* 18, 1-32. Dordrecht: Reidel.
- Nelson, Diane. 2000. Linking causatives and experiencers. In Diane Nelson and Paul Foulkes (eds.), *Leeds Working Papers in Linguistics* 8, 149-77. Leeds: University of Leeds.
- Palmer, F.R. 2001. *Mood and Modality*. Cambridge: Cambridge University Press.
- Partee, Barbara. 1974. Opacity and Scope. In M.K. Munitz and P.K. Unger (eds.), *Semantics and Philosophy*, 81-101. New York: NYU.
- Payne, Thomas. 1997. *Describing morphosyntax: A guide for field linguists*. Cambridge, UK: Cambridge University Press.
- Perlmutter, David.M. 1971. *Deep and Surface Structure Constraints in Syntax*. New York: Holt, Rinehart and Winston.
- Pesetsky, David. 1995. *Zero Syntax*. Cambridge, MA: MIT Press.
- Piñón, Christopher. 2001. Modeling the causative-inchoative alternation. *Linguistische Arbeitsberichte* 76, 273–293. Leipzig: University of Leipzig.
- Perlmutter, David and Paul Postal. 1974. *Lectures on relational grammar*. Linguistics Institute of the Linugistic Society of America, University of Massachusetts, Amherst.
- Prince, Ellen. 1974. English aspectual constructions. PhD dissertation, University of Pennsylvania, Philadelphia, PA.
- Progovac, Ljiljana. 2005. *A Syntax of Serbian Clausal Architecture*. Bloomington, IN: Slavica Publishers, Indiana University.

- Pylkänninen, Lina. 2002. Introducing arguments. PhD dissertation, Massachusetts Institute of Technology, Cambridge, MA.
- Ramchand, Gillian C. 2008. *Verb Meaning and the Lexicon: A First-Phase Syntax*. Cambridge: Cambridge University Press.
- Ramchand, Gillian C. 2012. Licensing of Instrumental case in Hindi/Urdu. In Bridget Copley and Fabienne Martin (eds.), *Causation in Grammatical Structures*. Oxford: Oxford University Press.
- Reinhart, Tanya. 2000. The Theta System: Syntactic realization of verbal concepts, *OTS Working Papers in Linguistics*, 00.01/TL.
- Reinhart, Tanya. 2002. The Theta System - An overview, *Theoretical Linguistics* 28(3): 229-290.
- Reinhart, Tanya and Tal Sioni. 2005. The Lexicon-Syntax Parameter: Reflexivization and Other Arity Operations. *Linguistic Inquiry* 36(3): 389-436.
- Ross, John Robert. 1976. To have *have* and not to have *have*. In M. A. Jazayery et al. (eds.), *Linguistic and Literary Studies in honor of Archibald A. Hill*, 265-270. Lisse: Peter de Ridder Press.
- Rivero, Maria-Luisa and Milena Milojević-Sheppard. 2003. Indefinite reflexive clitics in Slavic: Polish and Slovenian. *Natural Language and Linguistic Theory* 21 (1): 89-155.
- Rivero, Maria-Luisa. 2009. Intentionality, high applicatives, and aspect: involuntary state construction in Bulgarian and Slovenian. *Natural Language and Linguistic Theory* 27: 151-196.

- Schachter, Paul and Fe T. Otnes. 1972. *Tagalog Reference Grammar*. Berkeley/Los Angeles/London: University of California Press.
- Schoorlemmer, Maaïke. 1994. Dative subjects in Russian. In Jindrich Toman (ed.), *Formal approaches to Slavic linguistics, The Ann Arbor Meeting: Functional Categories in Slavic Syntax*, 129-72. Ann Arbor MI: Michigan Slavic Publications.
- Shibatani, Masayoshi (ed). 1976. *Syntax and Semantics 6: The Grammar of Causative Constructions*, Academic Press, New York.
- Shibatani, Masayoshi, and Prashant Pardeshi. 2002. The causative continuum. In Masayoshi Shibatani (ed.), *The grammar of causation and interpersonal manipulation*, *Typological studies in language* 48, 85-126. Amsterdam: John Benjamins.
- Sigurdsson, Halldor. 2002. To Be an Oblique Subject: Russian vs. Icelandic, *Natural Language and Linguistic Theory* 20: 691-724.
- Smith, Charlotte. 1991. *The parameter of aspect*. Dordrecht: Kluwer.
- Stanojčić, Z, L. Popović and S. Micić. 1989. *Savremeni srpskohrvatski jezik i kultura izražavanja*. Beograd: Naučna knjiga.
- Sulkala, Helena and Merja Karjalainen. 1992. *Finnish*. London: Routledge.
- Talmy, Leonard. 1988. Force dynamics in language and cognition. *Cognitive Science* 12: 49-100.
- Talmy, Leonard. 2000. *Toward a Cognitive Semantics*, Vols. 1 and 2. Cambridge, MA: MIT Press.

- Thompson, Laurence C. 1985. Control in Salish Grammar. In Frans Plank (ed.) *Relational Typology, Trends in Linguistics* (Studies and Monographs 28), 391-428. Berlin: Mouton.
- Travis, Lisa de Mena. 2005. States, abilities, and accidents. In Claire Gurski (ed.), *Proceedings of the 2005 Canadian Linguistics Association Annual Conference*.
- Vetter, David. 1973. Someone solves this problem tomorrow. *Linguistic Inquiry* 4(1): 104:108.
- Wagner, Johannes. 1976. Eine kontrastive Analyse von Modalverben des Deutschen und Schwedischen. *International Review of Applied Linguistics in Language Teaching* 14: 49-66.
- Williams, E. 1981. Argument structure and morphology. *The Linguistic Review* 1: 81-114.
- Witherspoon, Gary. 1977. Language and Art in the Navajo Universe. University of Michigan Press.
- Wolff, Phillip, Song, G., and Driscoll, D. 2002. Models of causation and causal verbs. In M. Andronis, C. Ball, H. Elston and S. Neuval (eds.), *Papers from the 37th meeting of the Chicago Linguistics Society, main Session*, Vol. 1, 607-22. Chicago, IL: Chicago Linguistics Society.
- Wolff, Phillip. 2003. Direct causation in the linguistic coding and individuation of causal events. *Cognition* 88: 1-48.
- Wolff, Philip. 2007. Representing causation. *Journal of Experimental Psychology: General* 136: 82-111.

- Zaenen, Annie, Joan Maling and Hölskudur Thráinsson. 1985. Case and Grammatical Functions: The Icelandic Passive. *Natural Language and Linguistic Theory* 3: 441-483.
- Zimmer, Karl. 1976. Some Constraints on Turkish Causativization. In Shibatani, M. (ed.), *Syntax and Semantics 6: The Grammar of Causative Constructions*. New York: Academic Press.