Understanding Situation and Viewpoint Aspect in Polish through Dative Anticausative Constructions and Factual Imperfectives

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Abstract

This dissertation examines the interplay of Situation Aspect and Viewpoint Aspect in two classes of constructions in Polish: i) anticausatives with and without Dative subjects, ex. (Jankowi) złamały się okulary *John broke the glasses involuntarily / The glasses broke*; and ii) Factual Imperfectives, ex. Jadłam obiad *I have eaten my dinner*. With the first type of construction, the concern is why the unintentional causer reading is obtainable only in telic contexts and how two classes of Polish anticausatives – one with prefixed verbs and one with unprefixed verbs – differ structurally. The question that arises with analyses of Factual Imperfective constructions (FIs) is about the untypical role of imperfective aspect: how is it possible that the imperfective morphemes that the Slavic literature (almost) unanimously pairs with English Progressives do not neutralize telicity as the Progressive does?

The dissertation finds evidence supporting the view that Slavic lexical prefixes are telicity markers and secondary predicates (cf. Svenonius 2004, Žaucer 2009). It argues that imperfectives that lack any aspectual morpheme and have the accusative case assigned to a direct object, nonetheless possess a non-overt aspectual operator located in the domain of Viewpoint Aspect. The dissertation enriches the recent discussions concerned with the puzzle of how to account for various readings of the imperfective (Cipria & Roberts 2000, Hacquard 2006, Deo 2009) by providing a semantic analysis of an interpretation not attested in languages like French, Italian and Spanish on which the discussions have focused so far. I argue that the Russian and Polish patterns dubbed as Existential Factual Imperfectives (cf. Grønn 2003) carry a silent Epistemic Modal that selects the imperfective due to its right semantic type: <s,t> in contrast to the <t> type of the perfective.

From a cross-linguistic perspective, this study is relevant for syntactic and semantic theories of aspect in natural language especially for the theory of imperfectivity. From a language specific perspective, this study aims to provide a deeper understanding of the particular aspect-related conditions that play a role in licensing oblique (Dative) causers in Polish.
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1. Introduction

The dissertation explores the nature of aspectual differences in Polish. While there is a large body of work on Slavic aspect, the interplay between Viewpoint and Situation Aspect in Slavic still remains a puzzle. In Czech, Polish and Russian, imperfective constructions result in both atelic and telic readings – a situation not found in Germanic and Romance languages. On the one hand, imperfective constructions in Polish display a different set of readings with High Applicatives than perfective constructions. On the other hand, only imperfectives can indirectly answer a question from a discourse topic in so-called Existential Factuals. This dissertation explains which properties of both types of the Viewpoint Aspect are responsible for such a difference in distribution.

One of the two main objectives of the dissertation is to examine the interplay between different ‘types’ of aspect, and between different aspectual phenomena and causation. Another objective is to examine the nature of imperfective aspect and to provide an account of the Existential Factual reading of the imperfective, a reading that is present in Polish and Russian but not attested in Romance.

From a cross-linguistic perspective, this study is relevant for syntactic and semantic theories of aspect in natural language, especially for the theory of imperfectivity. It enriches the ongoing debate concerned with the puzzle of how to account for various
readings of the imperfective (Cipria and Roberts 2000, Hacquard 2006, Deo 2009, among others) by providing a semantic analysis of an interpretation not attested in languages such as French, Italian and Spanish on which many discussions have focused so far. From a language specific perspective, this study aims to provide a deeper understanding of the particular aspect-related conditions that play a role in licensing oblique (Dative) causers in Polish.

The restrictions posed by aspect on oblique causers, hardly a phenomenon restricted to Polish\(^1\), are illustrated with Polish examples in (1b) and (2b). Both sentences contain: (i) a verb in an anticausative form – that is, with the reflexive clitic się; (ii) a nominative logical object that agrees with the verb in gender and number, and (iii) a dative logical subject. Syntactically, the difference between these two sentences is that (2b) lacks the prefix z- on the verb. Semantically, the two examples differ in the range of interpretations available to them – in (2b) the unintentional causer reading is missing. Sentences (1a) and (2a) are the causative counterparts of (1b) and (2b). The grammatical and logical subject – Janek – appears in the nominative case.

(1) a. Janek złamał okulary.
   ‘John broke (the) glasses.’

\(^1\) For relevant examples in German and Italian, see Schäfer (2012); for examples in Malagasy – Travis (2005).
b. Jankowi złamały się okulary.


Reading A: ‘John’s glasses broke.’

Reading B: ‘John was affected by the glasses breaking.’

Reading C: ‘John involuntarily broke the glasses.’

(2) a. Janek łamał okulary.


‘Janek was breaking (the) glasses.’ / ‘Janek broke glasses more than once.’

b. Jankowi łamały się okulary.


Reading A: ‘John’s glasses broke.’

Reading B: ‘John was affected by the glasses breaking.’

The prefix z- is a lexical prefix; lexical prefixes in Slavic languages belong to the domain of Situation (Inner) Aspect as they mark telicity.

Important questions for this dissertation originate from juxtaposing the pairs in (1) and (2): Why does Polish have two classes of anticausatives, one with prefixed verbs, the other lacking prefixes? Do these two classes represent two different syntactic structures or do
they just differ in morphology (and not syntax)? What is the role of prefixes in the first class of anticausatives (the anticausatives with prefixed verbs)?

I will argue that the anticausatives with prefixed verbs display a more complex syntactic structure than the so-called primary imperfective anticausatives: the prefix is a secondary predicate building a resultative phrase in the sense of Ramchand (2008).

Although the dissertation focuses on Polish, the method of analysis is comparative and includes Germanic, Romance and Slavic languages. One important difference between Romance and Germanic languages, on the one hand, and Polish on the other, a difference that will help us understand the roles of different morphological elements in anticausatives, lies in the type of the anticausative: in Romance and Germanic languages, the anticausatives differ with respect to the presence versus absence of a reflexive clitic, whereas in Polish the reflexive się is a mandatory element of the anticausative structure(s). The similarity between Romance and Germanic languages and Polish/Slavic is that causers (including Dative oblique causers) are licensed in telic contexts.

My preliminary goal is to explain the role of the different morphological elements first in anticausatives, and secondly in Dative Anticausative Constructions (DACs from now on). Understanding the role of these elements will prove key to understanding how telicity and atelicity (Situation Aspect) is constructed in Polish, as well as delineate the role of imperfective aspect in generating atelicity and in preventing causers from being licensed.
My analysis of DACs will lead me to a conclusion regarding the syntactic status of imperfective aspect. I will argue that different readings of the imperfective originate from different imperfective operators situated in Viewpoint Aspect and that these operators depend on the different structures of Voice Phrase. This conclusion will be tested in the second part of my thesis which will be devoted to Existential Factual Imperfective Constructions (EFIs). An example of an EFI is given in (3):

(3) Czy kiedykolwiek rzucłeś dziewczynę? Polish

‘Have you ever broken up with a girlfriend?’

Polish constructions of the type in (3), and their counterparts in other Slavic languages, have attracted recent attention (Grønn 2003, Dočekal and Kučerová 2009, Altshuler 2012, a.o.) due to the complete event denotation in the presence of the imperfective past. Although the imperfective morpheme on the verb in (3) represents Viewpoint Aspect and has some properties of the English Progressive, it does not neutralize telicity as the Progressive does in, for example, John was crossing the street.

My aim is to account for this particular reading of the imperfective. I will propose that a proposition denoted by a construction of the type in (3) is a part of an epistemic modal base and, due to causal relations in the modal base, it yields a specific interpretation parallel to that of the English Resultative Perfect.
In the remaining parts of this chapter, I will introduce the domains of Situation Aspect and Viewpoint Aspect (section 1.1) and I lay out the structure of this dissertation (section 1.2).

### 1.1 Introduction to aspect

If one takes on the task of describing the Aspect of a particular construction, one has actually two aspects of Aspect to consider: the temporal structure of eventualities\(^2\), dubbed Situation Aspect, and the relation between such a structure and the time interval to which the particular construction refers (see Smith 1991, 146 ff.) – so-called Viewpoint or Grammatical Aspect.

The domain of Situation Aspect is the structure of eventualities. Events can have an inherent endpoint or not. Consider the English pair below:

(4)  

\begin{align*}
\text{a. Dudley ate a pizza.} \\
\text{b. Dudley ate pizza.} & \quad \text{(MacDonald 2006: 3)}
\end{align*}

We perceive the event in (4a) as an event of eating an entire pizza. This event has an endpoint which corresponds to the finishing of the pizza. A sentence that denotes an event with an endpoint (Greek *telos*) is dubbed *telic*. Consider now (4b). The sentence

---

\(^2\) ‘Eventuality’ is a cover term for all types of events (states, accomplishments, activities and achievements) coined by Bach (1986).
describes an event with no endpoint specified: Dudley could have eaten the whole pizza, just a slice of it, or maybe two bites. Such an event (and the sentence) is thus atelic.

Since Verkuyl (1972), it has been argued that the nature of the internal argument affects the Situation Aspect of the event. I explain this in Krifka's (1989) terms. A pizza in (4a) is quantized since another entity that falls under the denotation a pizza cannot be a proper part of the entity denoted by the first noun phrase. In (4a), finishing the pizza puts a limit to the event of eating (the event progressed up to the moment when the whole pizza was consumed); that signifies what Krifka refers to as Mapping to Events. Since the object is quantized, the event is quantized, too: no proper part of ate a pizza can be an event of the same type. Let us suppose Dudley ate a pizza in 15 minutes. There is no part of the event which we can also call eating a pizza – in the 5th minute he ate only a part of a pizza, in the 14th minute he already ate a lot but still not the whole pizza. Quantization in that sense can be used interchangeably with telicity.

On the other hand, pizza is cumulative. Any part of the entity denoted by pizza falls under the same denotation – it is still pizza. The whole predicate in (4b) is cumulative, too: if Dudley ate pizza (without interruptions), let us say from 1:00 p.m. to 1:15 p.m. on the 1st of May 2001, then, he also ate pizza from 1:03 p.m. to 1:11 p.m. on that very same day.

Such a correlation between quantized objects and quantized events as exemplified in English in (4a) does not occur in most Slavic languages. Consider the Polish example in (5):
Izabela Łęcka piła dwie filiżanki kawy.

‘Izabela Łęcka was drinking two cups of coffee.’

Dwie filiżanki kawy ‘two cups of coffee’ are quantized but the whole event in (5) is not. Any part of the event of drinking two cups of coffee by Izabela Łęcka is still an event of drinking two cups of coffee by Izabela Łęcka. (Imagine that Izabela Łęcka drank one cup of coffee after the other with no interruptions.) We encounter a cumulative, atelic event despite a quantized DP in the object position. Note that the verb in (5) is in its so-called primary imperfective form – there is no aspectual morpheme present.

Also, unlike in English, in Polish, the cumulativity of a direct object does not yield to cumulativity of the whole predicate. Consider (6):

Izabela Łęcka zjadła pizzę.

‘Izabela Łęcka ate up a/some pizza.’

Pizza is cumulative in (6). The whole event, however, is quantized (telic) due to the presence of prefix z-. Slavic lexical prefixes imply culmination independently of the nature of the internal argument (cf. Kratzer 2004, Filip 2005). The example in (6) states that
Izabela Łęcka ate the whole amount of pizza – we do not know whether it was a slice or two slices or the whole thing, but we do know, however, that no matter what amount it was, she ate it all.

A large class of Slavic prefixes – the so called class of lexical prefixes – was defined on the basis of their location inside of vP, in the domain of Situation Aspect (Spencer and Zaretskaya 1998, Svenonius 2004, Filip 2005, Žaucer 2009, a.o). Z- in (6) is an example of such a prefix. Note that the event over which the prefixed verb predicated has an inherent endpoint – the end of the pizza. For Filip 2005 the lexical prefixes are modifiers of eventuality types ‘and they cannot be exponents of a function (or functions) posited for the interpretation of the perfective aspect” (p.126). Spencer and Zaretskaya (1998) argued that Russian verbs with such prefixes have the same semantic structure as the resultative predication in English. In Svenonius’ 2004 account, a lexical prefix heads a phrase that encodes the final state of an event which was introduced by the verb. The Polish sentence in (7a) gives us information about the result state (the oven being clean), and hence it can be paralleled with English (7b) rather than with (7c). Note that the Polish sentence with the lexical prefix on the verb is compatible with a time-span PP (w godzinę/’in an hour’), and does not tolerate a durative PP (przez godzinę/’for an hour’). Such a behavior - according to a standard test - signals telicity. In contrast to Polish (7a), the English sentence in (7c), in which the verb appears without a particle, is compatible with both: a time-span PP and a durative PP.
(7) a. Paweł wy-żyścił piekarnik w godzinę/*przez godzinę.


‘Paweł cleaned up the oven in an hour / *for an hour’.

b. Paul cleaned up the oven in an hour / *for an hour.

c. Paul cleaned the oven in an hour / for an hour.

It is understood from the Polish sentence in (8) that the man, as a result of sheriff’s shooting, is dead.

(8) Szeryf za-strzelił mężczyznę.


‘Sheriff shot the man dead’.

We have seen that in Polish the aspectual morphology of a verb (or lack of it) determines the Situation Aspect. (This rule also applies to other Slavic languages.) How and when does this morphology impact the Viewpoint Aspect (if at all)?

At the beginning of this section, we defined Viewpoint Aspect by saying that it describes the relation between the temporal structure of events and the time interval to which a particular construction refers. This relation can be two-fold (cf. Comrie 1976, Smith 1991): (i) perfective – which occurs when an eventuality is presented from outside the reference
time as in *Izabela Łęcka ate a pizza*; and (ii) imperfective – when an eventuality is presented from within the reference time as in *Izabela Łęcka was eating a pizza*. The reference time, a term introduced by Reichenbach (1947), is distinct from the time of the utterance or the time when the event occurred. It is, as Klein (1992: 535) put it: “the time for which, on some occasion, a claim is made.” In our perfective example, *Izabela Łęcka ate a pizza*, the reference time is some time after the time of the eating pizza event, whereas in the imperfective example, *Izabela Łęcka was eating a pizza*, the reference time contains the event time. These relations are represented in (9):

(9) Perfective Aspect:

\[
[[\text{perfective}]] = \lambda p \lambda t \lambda w. \exists e (\tau(e) \subseteq t \text{ and } P(e)(w) = 1)
\]

Imperfective Aspect:

\[
[[\text{imperfective}]] = \lambda p \lambda t \exists e \lambda w. (t \subseteq \tau(e) \text{ and } P(e)(w) = 1)
\]  
(Kratzer 1998: 17)

\(\tau(e)\) is the time of the event and \(t\) is the reference time. \(P(e)\) stands for a predicate of events (a VP). The event is relativized to a world \(w\). The role of aspect is to take predicates of events and return predicates of times which in turn combine with tenses. Hence, an Aspectual head representative of the Viewpoint Aspect merges above vP and below Tense Phrase.\(^3\)

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\(^3\) In the situation semantics framework, in which I develop my analysis of the imperfective in Chapter 4, the reference time is presented as a time of situations: 
\[
[[\text{imperfective}]] = \lambda p \lambda s \exists e [P(e) \text{ and } f_{\text{time}}(s) \subseteq f_{\text{time}}(e)],
\]
\[
[[\text{perfective}]] = \lambda p \lambda s \exists e [P(e) \text{ and } f_{\text{time}}(e) \subseteq f_{\text{time}}(s)] \quad (c.f. Kratzer 2005). Situations are partial words against
The Perfective Viewpoint emphasizes the final point of a situation (Smith 1991). It does not have to be an inherent final point; what matters is that the event terminated. In (10) an atelic event (no inherent endpoint) is presented in the perfective viewpoint:

(10) Judith played in the garden for an hour. (Depraetere 1995: 3)

The atelic event of playing is presented by the Perfective Viewpoint as bounded, that is with arbitrary endpoints. If the described event was telic, then the perfective will indicate that the event reached its natural endpoint (the case of Dudley ate a pizza.) Sentences in the Imperfective Viewpoint present events as unbounded; such events do not reach any temporal boundary.

(11) She is writing a nursery rhyme. (Depraetere 1995: 3)

Polish and Russian have a class of prefixes that bound atelic events bringing the focus to their termination. They differ from the lexical prefixes discussed above as they do not mark telicity. Po- in (12a) and (12b) is an example of such a prefix.

which events are evaluated. Imagine that I announce: ‘It rained’. The statement is true with respect to a specific place and time – it is, let’s say, true for Ottawa on July 30, 2014 at 1:00 p.m. but not for Toronto on the same day and time. For more discussion on situations, see section 4.5.1 of Chapter 4.
The events of sitting in the park and eating soup are atelic – they do not have inherent endpoint. They are, however, bounded as the focus lies on their termination.

The representation of the domain of Viewpoint Aspect as presented in (9) turns out to be insufficient with many interpretations of the perfective and the imperfective found across languages. The denotation of the imperfective, for instance, represents only one (progressive, ongoing) reading of imperfective constructions, while we need to account for numerous interpretations of the imperfective available cross-linguistically (although not ubiquitously – some languages restrict certain readings (see Arregui, Rivero and Salanova (2014)). The example provided in (13) lists the interpretations available in Polish:

(13) a. Virginia pisała artykuł, gdy Nelly weszła z herbatą.
V.Nom.Fem write.1Sg.Ipf article.Acc when Nelly entered with tea

‘Virginia was writing an article when Nelly came with tea.’

Progressive
b. Ewa grała Balladynę w każdy piątek.
   Eve.Nom play.Ipf.Past.3Sg.Fem B.Acc in each Friday.
   ‘Eve played Balladyna each Friday (used to play).’ Habitual

c. Jan kopał piłkę przez 10 minut.
   John.Nom kick.Ipf.Past.3Sg.Masc ball.Acc for 10 minutes
   ‘John kicked the ball for ten minutes.’ Iterative

d. Jola czytała „Wojnę i pokój”.
   Jola.Nom read.Ipf.Past.3Sg.Fem War and Peace.Acc
   ‘Jola has read War and Peace.’ Factual

There are two main approaches to the task of accounting for various readings of the imperfective.

The first approach includes analyses of imperfective constructions that aim at providing a unified semantic value covering all of their various intuitive meanings. Cipria and Roberts (2000), whose account of the Spanish imperfecto exemplifies such an approach, explain the different readings of imperfective constructions via different modal accessibility relations.

The second approach includes analyses of imperfective constructions that do not aim at providing a unified semantics for all their various readings since those readings are argued to result from distinct phonologically null aspectual operators. The distinct semantic
values of those operators are sought instead. Hacquard (2006) and Anand and Hacquard (2010) are representatives of such an approach.

My own analysis of Existential Factual Imperfective also falls under this second – non-unifying – approach.

1.2 Thesis Outline

This dissertation is organized as follows: Chapter 2 discusses anticausative constructions. It deals with the question of what the role of prefixes in anticausative constructions is and how the two classes of anticausatives – with perfectivizing prefixes and without – differ structurally. My analysis confirms the view advocated by Filip (2000), Svenonius (2004), and Žaucer (2009), a.o., that Slavic lexical prefixes are telicity markers and secondary predicates. I argue that the syntactic difference between prefixed and unprefixed anticausatives boils down to the difference in the type (flavor) of little v (voice) which in prefixed anticausatives is causative (v\text{CAUSE}) and in unprefixed causatives is agentive (v\text{DO}).

The reflexive clitic plays a distinctive role in both classes: in prefixed anticausatives, the clitic is a resumptive pronoun, it resides in the specifier of vP and receives the Causer theta role. In unprefixed anticausatives, the clitic merges as the head of v, is not a reflexive pronoun but an expletive, and does not bear any theta role. I argue against the recent proposals that equate anticausativization with reflexivization (Koontz-Garboden 2009, and Beavers and Koontz-Garboden 2013). The Polish anticausative się acts as a
reflexivizer in the spirit of Koontz-Garboden (2009) only in one scenario: if an unprefixed verb denotes punctual events (in other words, if the verb is [-process]). I explain why imperfective verbs in Polish disallow Causers as their external arguments and why they nonetheless form anticausatives thus providing an exception to this cross-linguistically observed pattern:

(14) Only transitive verbs that do not restrict the Θ-role of their external argument to agents enter the causative alternation. (Schäfer and Vivanco, To appear: 4)

I argue that Polish primary imperfectives have an implicit operator above the Voice Phrase in the Viewpoint Aspect, parallel to the one proposed for German imperfectives by Kratzer (2004). I propose that the GENERIC operator in the Viewpoint Aspect differs from the ONGOING operator in that it requires in its scope verb phrases with a causative Voice. The GEN operator does not cancel the requirement for culmination (telicity) and hence differs from the ONGOING operator that triggers atelicity.

Chapter 3 explores the properties of Datives combined with anticausatives and the relation between telicity and the unintentional causer reading in anticausative constructions with Datives in Polish. I will argue that in Polish, dative subjects are interpreted as Unintentional Causers if applied to intransitives with: (i) CAUSE flavor of Voice/little v, and (ii) the resumptive pronoun (reflexive) for the dative in an Applicative Phrase. Polish DACs differ from their counterparts in German and Romance with respect
to the syntactic role of the reflexive which in Italian and German is not a pronoun but an explicative with no thematic role for the Dative.

Chapter 4 concerns imperfectives and their relation to Viewpoint Aspect. I propose a syntactic and semantic analysis of Existential Factual Imperfectives in Polish and Russian. The outcome of my analysis supports the approach advocated by Hacquard (2006) and Anand and Hacquard (2010) in which imperfective is a default – a semantically vacuous morpheme whose presence is guaranteed by specific conditions that rule out the perfective. The proposal is based on the situation semantics framework with situations (worlds) explicitly represented in the syntax (Percus 2000, Kratzer 2014). Inspired by Portner’s (2003) account for the English Resultative Perfect, I propose that EFIs carry a silent epistemic modal. I follow Hacquard (2006, 2010), in assuming that modals are relative to an event – rather than a world – of evaluation and that a modal operator has an event variable that must be bound locally.

Chapter 5 concludes this dissertation.
2. The Syntax and Semantics of Anticausatives

2.1 Introduction

This chapter will be concerned with the role of Situation Aspect (Smith 1991) in anticausative constructions. We will examine two classes of Polish anticausatives: those with perfectivizing prefixes and those without (the latter nicknamed ‘primary imperfectives’). The anticausatives with prefixes provide evidence that a class of Slavic prefixes belongs to the domain of Situation Aspect (as it was argued by Filip 2000, Svenonius 2004, and Žaucer 2009) – that is, they are telicity markers and stativizers, similar in one way to the reflexive ‘si’ in Italian anticausative constructions and to particles in Germanic languages – for example English out in throw the garbage out. These particles and the reflexive ‘si’ build small clauses and resultative states, signaling the Cause type of little v (cf. Folli and Harley 2005). On the other hand, we will see that the primary imperfective constructions have a different type of little verb and consequently, disallow causers. They still form anticausatives but only if combined with GEN or ONGOING – two types of imperfective Viewpoint Aspect.

This chapter is organized as follows: in the next section, 2.2, I summarize the debate on the syntax and semantics of anticausatives. Section 2.3 consists of interim conclusions and comments. In section 2.4, the dependency of causation on telicity (Situation Aspect) will
be discussed. The last section, 2.5, provides the reader with my proposal on the syntax of two classes of Polish anticausatives (prefixed and primary imperfectives) and on the role of Situation and Viewpoint Aspect in those classes.

2.2 The Anticausative Debate

Crosslinguistically, anticausative (inchoative) verbs are the intransitive counterparts of the change-of-state (and change-of-degree) verbs in the causative alternation, as the following English and Polish examples illustrate:

(1)  
   a. The window broke. \textit{Anticausative, English}
   b. John/the stone/the blow of the wind broke the window. \textit{Causative}
   c. Gałąź się złamała. \textit{Anticausative, Polish}

   Branch.Nom.Fem.Sg Refl broke.Fem.Sg

   ‘The branch broke.’
   d. Jan/ wiatr złamał gałąź. \textit{Causative}


   ‘John/the wind broke the branch.’

Anticausative constructions belong to the class of unaccusatives – i.e. they have only one argument (theme), and a common syntactic approach in generative grammar is that such an argument is merged as the direct object and then moves to the structural subject
position. Not all unaccusative verbs participate in the anticausative alternation, as illustrated in (2b) and (2d).

(2)  

a. The tree blossomed. \(\text{Unaccusative, English}\)

b. *The gardener blossomed the tree

c. Słonecznik zwiądl. \(\text{Unaccusative, Polish}\)

Sunflower.Nom.Masc.Sg wilted.Masc.Sg

‘The sunflower wilted.’

d. *Wilgoć zwiędła słonecznik.


‘Humidity wilted the sunflower.’

In order to explain the syntax and semantics of anticausatives, one must engage in an ongoing debate that has been triggered by some diverse crosslinguistic evidence. Below, I list questions that have been raised in the discussion about the class of verbs that participate in the anticausative alternation.

i) Do inchoatives differ from passives in semantics? Do they project an implicit external argument as passives do?

ii) Is there a direct lexical or syntactic relation between the two variants, and if so which variant of the causative alternation serves as a base for the derivation of the other?
iii) Why do the groups of verbs that participate in the causative alternation differ from one language to another?

iv) Why, in most languages that morphologically mark the inchoative variant, does a group of morphologically unmarked anticausatives exist alongside the marked ones?

On the pages to follow, I will review the theories that were developed in order to solve these problems. I will build my proposal in the spirit of Alexiadou et al. (2006) and argue that neither anticausative forms are derived from their causative counterparts nor the causative forms are derived from the anticausative ones. I will argue – diverging from Alexiadou et al. 2006 – that anticausatives which allow uncanonical causers (example: PPs that introduce causers) have a causative little v with a small clause (and a result state) as a complement. Before I present my proposal, I will summarize the main problems that have fueled the anticausative debate.

2.2.1 Anticausatives and passives

That the semantic representation of anticausatives is distinct from the semantic representation of passives has been argued in view of pairs of the types illustrated below (c.f. Chierchia 1989, Reinhart 2000):
(3)  a. The boat was sunk by Bill.
    b. *The boat sank by Bill

(4)  a. The boat was sunk on purpose.
    b. *The boat sank on purpose

(5)  a. The boat was sunk to collect the insurance.
    b. *The boat sank to collect the insurance

(3) shows that only passives not anticausatives allow the modification by agent-introducing by-phrases. In (4), the agent oriented adverb is felicitous when adjoined to a passive verb (4a), but deviant with inchoative (4b). The same “preferences” are shared by a purpose clause in (5): only passives allow control into such clauses.

The possibility of modification and control has been taken as evidence that passives have, indeed, implicit external argument. Anticausatives must lack external arguments in their semantic representation since these arguments cannot be accessed by modification and cannot control into purpose clauses.

However, the hypothesis that anticausatives lack external arguments was questioned by Alexiadou et al. (2006) due to a certain phenomenon observed crosslinguistically, which is
that inchoatives license specific prepositions which introduce causer arguments. This is shown below for English, German, and Greek:

(6)  a. The window cracked/broke from the pressure.  
     b. The window cracked/broke from the explosion.  

     (Alexiadou et al., 2006)

(7)  a. Die Vase zerbrach durch ein Erdbeben.  
     The vase broke through an earthquake  
     b. Die Luftqualität im Raum verschlechtert sich  
     The air-quality in-the room worsens REFL  
     durch das Rauchen von Zigaretten massiv.  
     through the smoking of cigarettes severely  

     (Alexiadou et al., 2006)

(8)  a. Ta ruxa stegnosan apo/me ton ilio.  
     The clothes dried by /with the sun  
     *The clothes dried by the sun  
     b. Ta ruxa stegnosan me to aploma ston ilio.  
     The clothes dried with the hanging-up under the sun  
     *The clothes dried by hanging them up under the sun  

     (Alexiadou et al., 2006)
A similar situation is found in Polish, as in (9).

(9) Wazon się przewrócił od podmuchu wiatru. Polish
Vase Refl fell from blow wind
‘The vase fell from the blow of the wind.’

If anticausatives are assumed to lack the external argument, the preposition phrases denoting agents, causers and causing events (i.e. theta roles realized by external arguments in causatives) are expected not to be licensed. Examples (6-9) show that, indeed, the prepositions introducing causers and causing events are felicitous in the anticausative structure.

Is there an implicit causer in the syntax of anticausatives, then? Its presence in the inchoatives’ semantic representation was assumed by (some) proponents of the *detransitivization* approach to the *causative alternation*; in this view, the intransitive uses of verbs arise from an operation in the lexicon that prevents the causer argument from being projected to a syntactic representation (Levin and Rappaport Hovav 1995). Let us discuss this proposal along with other approaches to the anticausative alternation.
2.2.2 Derivational theories

The first voice in the anticausative debate belongs to the linguists declaring that causative uses are derivative; verbs are listed in the lexicon as inchoative (cf. Lakoff 1968, 1970, Dowty 1979, Pesetsky 1995, among others). The causative alternants are derived from the basically monadic anticausatives via causativization: the causative predicate CAUSE is added to the semantic representation. This process is illustrated below:

\[
\begin{align*}
(10) \quad a. \quad \text{break (inchoative):} & \quad \lambda x \, [\text{Become \ BREAK} (x)] \\
b. \quad \text{break (causative):} & \quad \lambda y \lambda x \, [\exists P \, [P(x) \ \text{Cause} \ \text{Become \ BREAK} (y)]]
\end{align*}
\]

In the lexical theory of detransitivization proposed by Levin and Rappaport Hovav (1995), the CAUSE predicate is present in the Lexical Semantic Representation (LSR) of both causatives and anticausatives. Thus, each of the elements of the pair (for example the transitive and intransitive break) is composed with the same meta-predicates (which, in the case of break, are: DO, CAUSE, BECOME) and the same variables (BROKEN). Causatives and anticausatives differ in the Argument Structure (AS), though: the Causer is not projected into AS in anticausatives. AS represents a part of the lexicon where the number of arguments required by the verb is specified. It also contains the information “directing” the linking of verb arguments to specific syntactic positions. The difference between AS of causatives and AS of anticausatives is the result of the process called
detransitivization. This process, illustrated in (11), is lexical as it takes place before mapping the Argument Structure to syntactic structure.

(11) Intransitive break:

\[
\begin{align*}
\text{LSR} & : \quad [[x \text{ do-something}] \text{ cause } [y \text{ become } BROKEN]] \\
\text{Lexical binding} & : \quad \emptyset \\
\text{Linking rules} & : \quad \downarrow \\
\text{AS} & : \quad <y>
\end{align*}
\]

The square brackets contain subevents; the causing subevent ([[x DO-SOMETHING]]) is associated with the Causer argument, while the central subevent represents the argument that undergoes the change (patient or theme). The former is not mapped into the Argument Structure of the intransitive break.

The transitive break has the same exact semantic structure as shown in (11) but its AS contains both the cause and the theme, which are projected from LSR:
Reinhart (2000, 2002) agrees with Levin and Rappaport Hovav (1995) that alternating verbs are inherently transitive. In explaining how the intransitive alternates are derived, Reinhart used a system of formal features that, in her view, composed the thematic roles: an operation called expletivization eliminates the external feature ‘cause’, denoted as [+c], from the lexical entry. ‘Cause’ may build the agent theta role (characterized by the feature combination [+c+m], where [+m] symbolizes the mental state), and also instruments and causers, both described by the cluster [+c-m]. Such a system of clusters captures the generalization that verbs which allow causers as their external arguments, can also appear with agents and instruments in their subject position. How the [+c] cluster is reduced from the transitive entry is illustrated below:

Expletivization:

a. \( V(\text{accusative}) (\theta_1[+c], \theta_2) \rightarrow \text{Re}(V)(\theta_2) \)

b. \( \text{Re}(V)(\theta_2) = V(\theta_2) \)
Reinhart’s proposal, as all other derivational approaches to the *causative alternation*, was rejected by Alexiadou et al. (2006) for whom causatives and anticausatives/inchoatives have the same event structure. According to Alexiadou et al., neither of the versions of alternating verbs is derived from the other; but rather they both originate from one source, a category neutral Root. Before I explain this proposal in more detail, I will summarize the evidence that lead the authors to it.

### 2.2.3 Problems with derivational theories

Alexiadou et al. (2006) pointed out that the morphological marking in the causative-anticausative pairs varies across languages, i.e. while some languages mark anticausatives with special morphology (the case of Polish and Russian as exemplified in (13) below), others mark the causative counterparts (see the examples in (14) from Georgian).

\[(13)\]
\begin{align*}
a. & \quad \text{katat’-sja ‘roll (intr)’} \quad \text{(Russian, Haspelmath 1993: 91)} \\
   & \quad \text{katat’ ‘roll (tr)’} \\
   & \quad \text{złamac’-się ‘break (intr)’} \quad \text{(Polish, Piñon 2001: 2)} \\
   & \quad \text{złamac’ ‘break (tr)’} \\
\end{align*}

\[(14)\]  
\begin{align*}
a. & \quad \text{duγ-s ‘cook (intr)’} \quad \text{(Georgian, Haspelmath 1993: 91)} \\
   & \quad \text{a- duγ-ebs ‘cook (tr)’} \\
\end{align*}
Moreover, there are languages in which the special marking occurs in both variants as shown in (15a), languages which have examples of causative/inchoative pairs with verbs using different roots as in (15b), and, finally, languages with the same verb form occurring both in causatives and anticausatives, as in (15c).

(15)  

a. atum-aru ‘gather’ (intr)  
Japanese  
(Haspelmath 1993: 91)  
atum-eru ‘gather’ (tr)  

b. goret’ ‘burn’ (intr)  
Russian  
žeč ‘burn’ (tr)  

c. open (intr)  
English  
open (tr)  

These variations do not allow determining which of the variants is the basic one. Special morphology marking, which is assumed to occur with derived verbs since those verbs are formed on some computational level of grammar, occurs, as it was shown, both with anticausatives and causatives.

Another challenge for the derivational approaches is brought by certain verb restrictions and selection restrictions (cf. Alexiadou et al., 2006). An example of the former is illustrated in (20): the verb ‘cut’ is grammatical in a transitive frame (16a) only:
a. The man cut the letter.

b. *The letter cut

This behavior of ‘cut’ (which also occurs with verbs such as ‘fed’, ‘destroy’, ‘kill’) is problematic for the causativization approach: the causative version of such verbs cannot be simply derived from the anticausative alternant since the latter does not exist, as proven by the ungrammaticality of (16b). The proponents of the detransitivization theory (cf. Levin and Rappaport Hovav 1995, Reinhart 2000, 2002) explained the lack of the unaccusative variant through the following generalization: if a verb restricts its subject only to agents or agents and instruments, the reduction advocated by Reinhart (2000, 2002) or the lexical bounding opted by Levin and Rappaport Hovav (1995) cannot occur. This allows us to predict that the transitive ‘break’ will have an anticausative counterpart since the verb allows causers and causing events in its subject position, as in (17a), and also to justify the ungrammaticality of (18b); as shown in (18a), ‘cut’ disallows causing events as its external arguments.

(17)  a. The wind/a stroke of the thunderbolt broke the tree.

b. The tree broke.

(18)  a. *A stroke of the thunderbolt cut the tree

b. *The tree cut
That including causers and causing events in the argument structure of a verb is decisive for this verb’s intransitivity, is captured also in the verbs’ selection restrictions. This phenomenon is exemplified in (19): ‘break’ with certain choices of internal arguments has only transitive uses. Note that with these internal arguments, the causer theta role is deviant, as illustrated in (20).

(19)  
   a. He broke his promise / the contract / the world record.  
   b. *His promise / the contract / the world record broke

(20)  *The tornado broke the world record in speed

Similar to the example of verb restrictions in (16) – the non-existence of an intransitive alternant of the verb ‘cut’ – the selection restriction illustrated in (19) is also problematic for the causativisation approach. (19a) cannot be derived from (19b) since the latter does not exist.

The phenomenon called verb restriction challenges detransitivisation theories when it comes to deriving change-of-state unaccusatives from ungrammatical causatives. We cannot assume that the external argument of (21a) is “lexically bound” leading to the argument structure of (21b), since (21a) does not occur in English.⁴

⁴ To avoid this hindrance in their theory, Levin and Rappaport Hovav (1995) excluded intransitive verbs like ‘blossom’, ‘bloom’, ‘decay’, ‘flower’ from their detransitivisation analysis. They justified this exclusion by treating the class of verbs that “describe internally-caused eventualities in the sense that these eventualities are conceptualized as arising from inherent properties of their arguments” as Causer-less in the Lexical
(21) a. *The gardener blossomed the cactus

b. The cactus blossomed.

The fact that verb restrictions and selection restrictions vary across languages cannot be justified through either the causativization or the detransitivisation approaches. Alexiadou et al. (2006) point out that Greek verbs meaning ‘destroy’ and ‘kill’ appear in both transitive and intransitive frames, as shown in (22) and (23), thus differ from their English and German counterparts, as illustrated in (24) for English (for German verbs see Alexiadou et al. 2006, and Schäfer 2007). As these Greek verbs allow causers and causing events in their transitive uses, they do not create problems for the generalization proposed by Levin and Rappaport Hovav (1995) and Reinhart (2000, 2002); their anticausative variants are expected to exist since the two theta roles are licensed in the transitive frames.

(22) a. O Petros i fotia/ I vomva katestrepse to paketo.

‘Peter/ the fire/ the bomb destroyed the package.’

b. To paketo katastrafike apo/me tin fotia/ me tin vomva.

The package destroyed-Nact by/with the fire/ with the bomb

‘The package was destroyed by the fire/bomb.’

Semantic Representation. There is only one slot for a thematic role in LSR (\{x PREDICATE\}) and this slot is filled by Theme or Patient.
(23)  a.  O Petros/ o sismos/   I vomva skotose ti Maria.

        ‘Peter/ the earthquake/ the bomb killed Mary.’

     b. I Maria skotothike apo/me ton simo/ me tin vomva.

         Mary killed-Nact by/with the earthquake/ with the bomb

         ‘Mary was killed by the earthquake/bomb.’

(24)  a.  John/ the fire/ the bomb destroyed the manuscript.

     a’.  *The manuscript destroyed

     b.  John/the fire/the bomb killed Mary.

     b.’ *Mary killed

But why are the verbs ‘destroy’ and ‘kill’ ungrammatical as anticausatives in English and German if their causative variants also license causers and causing events? What is responsible for the fact that the class of alternating verbs is not stable across languages? We will look at the proposed answers to these questions in the next sections of this chapter; for now let us conclude that the failure to provide solutions for such problems makes the discussed causativisation and detransitivisation theories insufficient.
2.2.4 Non-derivational approaches to the *causative alternation*

2.2.4.1 Alexiadou et al. (2006)

As it was shown in examples (6-8), repeated below, anticausatives in English, German and Greek allow causers if these arguments are introduced by specific prepositions. This fact is taken by Alexiadou et al. (2006) as evidence for the presence of the causative meaning component in inchoatives. The two variants in the *causative alternation* have the same event decompositions which are illustrated here in (25) and (26).

\[(6)\]
\[a. \quad \text{The window cracked/broke from the pressure.} \quad \text{English}\]
\[b. \quad \text{The window cracked/broke from the explosion.}\]

\[(7)\]
\[a. \quad \text{Die Vase zerbrach durch ein Erdbeben.} \quad \text{German}\]
\[\quad \text{The vase broke through an earthquake}\]
\[b. \quad \text{Die Luftqualität im Raum verschlechtert sich} \quad \text{(Alexiadou et al., 2006)}\]
\[\quad \text{The air-quality in-the room worsens REFL}\]
\[\quad \text{through the smoking of cigarettes severely}\]
\[\quad \text{(Alexiadou et al., 2006)}\]

35
(8)  a.  Ta ruxa stegnosan apo/me ton ilio.  
    The clothes dried by /with the sun
    *‘The clothes dried by the sun’

   b.  Ta ruxa stegnosan me to aploma ston ilio.
    The clothes dried with the hanging-up under the sun
    *‘The clothes dried by hanging them up under the sun’

   (Alexiadou et al., 2006)

(25)  a.  The door opens.

   b.  [CAUSE [the door OPEN]]

(26)  a.  John opens the door.

   b.  [John [CAUSE [the door OPEN]]]

Both variants: the causative (26) and the anticausative (25), have an opening event (CAUSE) and a state (the door is open) which is true only if the opening event occurred. This semantic analysis was proposed by Kratzer (2005) as a consequence of her own theory that Voice introduces external arguments (Kratzer 1996). Under this theory, causatives have a phonetically silent Voice head that relates the event introduced by the verb with an external argument. The verb itself has just an internal argument; the introduction of the external one is possible through Voice. Anticausatives, on the other
hand, do not have *Voice in their syntactic structure – an observation which, as Alexiadou et al. (2006) claim, is proven to be correct by the English and German data next:

(27) a. The door opened *from Mary / *from the key  
    b. Die Vase zerbrach *von Peter / *mit dem Hammer

    *The vase broke by Peter/with the hammer’

(Alexiadou et al., 2006)

(27) shows that none of these languages allows agents and instruments in the anticausative frame, hence the frame lacks the projection of *Voice.

Greek anticausatives differ from their English and German counterparts in that, despite disallowing agents (28a), they license instruments (28b).

(28) a. *Ta mallia mu stegnosan apo tin komotria  
    the hair     my dried.ACT by   the hairdresser
    *‘My hair dried by the hairdresser’

    b. Ta mallia mu stegnosan me to pistolaki.
    the hair     my dried.ACT with the hair dryer
    *‘My hair dried with the hair dryer’

(Alexiadou et al., 2006)
In order to explain this distinct behavior of Greek inchoatives, Alexiadou et al. (2006) proposed that they do contain the Voice head, though the non-agentive type which contrasts from the agentive Voice of causatives. (The types of Voice heads advocated by these authors will be introduced under (iv) on next page.)

Alexiadou et al. (2006) decomposed causatives and anticausatives into the syntactic structures given in (29) and (30):

(29) The abstract decomposition of anticausatives

a. In English and German: [ CAUS [ vRoot + DTheme ] ]

b. In Greek: [VOICE-[AG] [ CAUS [ vRoot + DTheme ] ] ]

(30) The abstract decomposition of causatives

[DPext.arg VOICE [ CAUS [ vRoot + DTheme ] ] ]

Their proposal consists of the following hypotheses:

i) Both causatives and anticausatives contain the vRoot + DTheme complex, and neither of them is derived from the other;

ii) Both causatives and anticausatives have the CAUS head which builds a causal relation between a causing event and the resultant state. The resultant state is denoted by the vRoot + DTheme complex;

5 The structure in (29a) is also possible in Greek, cf. Alexiadou et al. (2006).
iii) A causing event is the implicit argument of CAUS. CAUS thematically licenses PPs which introduce causers and causing events;

iv) Voice is projected above CAUS in causatives and bears features relating to the external argument and features decisive for manner (passive or active). Agentive Voice ([+AG]) licenses agents and instrumental phrases, while non-agentive Voice licenses causers and causing events. Active Voice allows the external argument to appear in its specifier (as explicit); passive Voice requires that this argument be implicit.

In Alexiadou et al.’s approach, whether a verb undergoes the causative alternation or does not (recall the verb restrictions discussed in 2.2.2) is determined by the type of its Root, which is the residue of a lexical entry. According to Alexiadou et al. (2006), verbal Roots fall into the following classes:

(31) \(\sqrt{\text{agentive}}\) (murder, assassinate)

\(\sqrt{\text{internally caused}}\) (blossom, wilt)

\(\sqrt{\text{externally caused}}\) (destroy, kill)

\(\sqrt{\text{cause unspecified}}\) (break, open)\(^6\)

\(^6\) Alexiadou (2010) adopts the classification of roots from Alexiadou et al. (2006) but argues that whether a causative verb has an anticausative counterpart depends not only on the type of its root but also on morphology. A language that has morphology that signals ‘valency’ reduction allows more root types to enter the anticausative alternation.
The typology is not built on the relation between Roots and the CAUS head (as each of these types combines with CAUS) but rather on their requirements on the Voice projection. The agentive class demands the syntactic frame with [+AG] on Voice; hence, it does not tolerate the anticausative structure. We saw an example of such a Root when we discussed the restrictions associated with the verb ‘cut’. I repeat our example:

(16) a. The man cut the letter.
    b. *The letter cut

Recall that both Levin and Rappaport Hovav (1995) and Reinhart (2000), (2002) have already separated a class of verbs that are ungrammatical in the intransitive frame and related such ungrammaticality to the restrictions placed on the subject which, in the case of verbs like ‘cut’, and ‘murder’, must be agentive.

Externally caused verbs also require the Voice projection but do not place any restrictions on its features relating to the external argument. Since they tolerate Voice [-AG], they license causes and causing events in the subject position. We already saw representatives of this category of verbs in (24a) and (24b) which I repeat below:

(24) a. John / the fire / the bomb destroyed manuscript.
    b. John / the fire / the bomb killed Mary.
These verbs differ from the cause unspecified Roots in that they do not appear in the anticausative frame (with the exception of their Greek counterparts, discussed already above).

The cause unspecified verbs may appear without the Voice projection (forming inchoatives), with the non-agentive Voice (leading to the transitive frame with causer / causing event), or, finally, with the [+AG] feature on Voice requiring agent in the subject position.

No Voice projection is possible with the internally caused Roots, hence no external argument can be licensed, which also applies to Polish in (32b):

   English
b. *Gorąco zwiędło kwiaty
   Polish
   ‘The heat wilted the flowers.’

Under the view of Alexiadou et al. (2006), the internally caused Roots combine with CAUS – this explains the grammaticality of the prepositions introducing causer arguments in (33a) and in Polish (33b); the verbs are, indeed, causative:
(33) a. The flowers wilted from the heat.  
              (Schäfer 2007)

              b. Kwiaty zwiędły od gorąca.  
                  Polish

              Flowers.Nom. Pf.wilted from heat.Gen

              ‘The flowers wilted from the heat.’

**2.2.4.2 Koontz-Garboden (2009), Beavers and Koontz-Garboden (2013)**

A more recent proposal argues for equating anticausativization with reflexivization. According to Koontz-Garboden (2009) (who builds on Chierchia 2004), the clitic in those anticausatives which are morphologically marked in the same fashion as reflexives is a reflexivizer – it sets both arguments of a vP to be of the same type. Koontz-Garboden (2009) treats the inchoative predicates as two-place predicates with both Causer (which he calls Effector) and Theme being the same. (Note that the standard semantics for anticausatives has only one argument - Theme). The semantics of the reflexive clitic is shown in (34) whereas the denotation of the anticausative Spanish verb *romperse* ‘break’ – is given in (35b):

(34) \[se = \lambda R\lambda x \ [R(x,x)]\]

(35) a. \[\lambda x\lambda y\lambda s\lambda e [\exists v(\text{CAUSE}(v,e) \land \text{EFFECTOR}(v,y) \land \text{BECOME}(e,s) \land \text{THEME}(s,x) \land \text{broken}(s)] ]\]
b. [se] ([romper]) =
\[ \lambda x \lambda s \lambda e [\exists v [\text{CAUSE}(v,e) \land \text{EFFECTOR}(v,x) \land \text{BECOME}(e,s) \land \text{THEME}(s,x) \land \text{broken}(s)]] \]
(After Schäfer and Vivanco, To appear: 3)

Below I list the advantages of the reflexivization proposal as specified in Koontz-Garboden (2009), and the counterarguments that were raised against them by Horvath and Siloni (2012) and Schäfer and Vivanco (To appear).

First, Koontz-Garboden (2009) argues that his proposal simplifies the grammar as it avoids a syncretism between an inchoative and reflexive use of the reflexive clitic. It is a phenomenon shared by many Indo-European languages that the anticausatives are marked by a reflexive morpheme. Out of the languages from which I drew examples, French, German, Polish and Spanish have their inchoatives and reflexives marked in the same morphological fashion. The examples in (36) are in Polish:

(36) a. Janek zranił się.
Janek injured Refl
‘Janek injured himself.’

b. Stołek się złamał.
Stool Refl broke
‘The stool broke.’
As Horvath and Siloni (2012) and Schäfer and Vivanco (To appear) both point out, this simplification does not erase the syncretism of the reflexive morphemes: besides marking anticausative and canonically reflexive verbs across many languages, they also mark generic middles, reflexive passives and impersonal constructions.

Second, Koontz-Garboden (2009) points out that his proposal makes the correct prediction that the Cause operator is retained after an inchoative is derived from its transitive counterpart. That the causative meaning component is present in anticausatives was argued by Alexiadou et al. (2006) and Schäfer (2008) on the base of the fact that inchoatives in English, German and Greek allow causers if these arguments are introduced by specific prepositions (see the discussion in section 2.2.3.1). Chierchia (2004) also concluded that inchoatives do contain CAUSE in their denotation; he used the inchoatives’ compatibility with ‘by itself’ as a diagnostic. Spanish Por sí solo ‘by itself’ is felicitous in inchoatives (37), and transitives with a Causer in the subject position (39), but deviant with Experiencers (38):

(37) La puerta se abrió por sí sola.

The door REFL opened by REFL only

‘The door opened by itself.’

(Mendikoetxea 1999: 1593)
(38) *Juan sabe inglés por sí solo

Juan knows English by REFL only

‘Juan knows English by himself.’ (Koontz-Garboden 2009: 107)

(39) No se puede decir que ninguno de los golpes haya matado por sí solo

No REFL can say that none of the hits has killed by self only

a la víctima.

to the victim

‘It cannot be said that no hit has by itself killed the victim.’

(Koontz-Garboden 2009: 107,
http://www.gacetajuridica.com.pe/boletin-nvnet/abr05/boletin18-04.htm)

As we saw in the previous section, proposals by Levin and Rappaport Hovav (1995) and Alexiadou at al. (2006), although not based on reflexivization, also predict that a Cause operator is present in the semantic representation of anticausatives.

Third, Koontz-Garboden (2009) argues that only his proposal can explain the verb restrictions and selection restrictions of the causative alternation. We discussed these restrictions in section 2.2.2; recall that Levin and Rappaport Hovav (1995) and Reinhart (2002) identified that:
Only transitive verbs that do not restrict the Θ-role of their external argument to agents enter the causative alternation. (Schäfer and Vivanco, To appear: 4)

The reflexivization theory predicts that, if a verb restricts the theta role of their external argument to an agent, and has a theme as its internal argument, detransitivization yields uninterpretability: the merge of the reflexive morpheme would result in both arguments being the same (Theme) based on the semantics given in (34). On this view, Polish (41b) cannot be derived from (41a):

(41)  
a. Jan ściął drzewo.

\[ \begin{array}{ll}
\text{Jan} & \text{cut} \\
\text{tree} & \\
\end{array} \]

‘John cut the tree.’

b. *Drzewo ścięło się

\[ \begin{array}{ll}
\text{Tree} & \text{cut} \\
\text{Refi} & \\
\end{array} \]

*The tree cut

Schäfer and Vivanco (To appear) point out two problems that Koontz-Garboden’s (2009) explanation of the verb restriction and selection restriction faces. First, many languages have causative verbs that do not restrict their external arguments to agents but still do not form anticausatives. An example of such verb in English is ‘destroy’. Secondly, unmarked anticausatives (anticausatives that are not marked with the reflexive clitic) also
fall under the generalization in (40). Koontz-Garboden’s (2009) proposal implies that the universal phenomenon in (40) needs two different explanations – one for morphologically marked anticausatives and one for the unmarked ones.

In section 2.5 of this chapter, I will discuss two different ways in which reflexive morphemes are merged into the syntactic structures of anticausatives in Polish. I will bring new evidence that they can behave as resumptive pronouns if merged in the specifier position of vP or as clitics if merged in the v head. Only in the latter case, and with a special feature on the verb (i.e [-process]), can they be reflexivizers in the spirit of Koontz-Garboden (2009).

2.3 Interim conclusions and comments

So far we have looked at two derivational approaches to the causative-anticausative alternation (i.e. the theories of causativization and detransitivization), listed the problems which they both faced, and summarized some alternative proposals under which none of the variants of the alternation is derived from the other (cf. Alexiadou et al. 2006, Koontz-Garboden 2009).

This chapter should conclude with a proposal of the syntactic and semantic structure of anticausatives which will explain the crosslinguistic evidence in the most satisfactory way.
Will the decomposition of inchoatives by Alexiadou et al. (2006) be such a proposal? Its main contribution lies in attributing causative semantics to anticausatives and this view, as we saw, was justified by the fact that, in languages like German, English, Greek and Polish, causers and causing events are introduced to the anticausative frame by certain prepositions. While explaining the verbs’ restrictions on licensing of arguments, the authors did not depart from the earlier hypothesis (cf. Dowty 1979, Levin and Rappaport Hovav 1995) as they treated the syntactic structure of a sentence as dependent on the lexical properties of the verbal entries (Roots). Note that CAUS in the decomposition of anticausatives and causatives does not play any role in the mapping of arguments; it is the type of the Root (associated with encyclopedic information) that is decisive for the presence of the Voice projection and the Voice features, and, in consequence, determines the (anti)causativity of a syntactic frame and the character of the external argument (in causatives)\(^7\). However, in the discussed languages, there exists the following dependency between argument licensing and the functional/eventive make-up of the predicate: causers are only licensed in telic contexts, that is, in constructions that encode a precise variety of so-called Situation Aspect. The Polish examples in (42) that substantiate this point come from Frąckowiak and Rivero (2011).

\(^7\) In Alexiadou (2010), the type of the root alone does not determine the (anti)causativity of the syntactic frame; the availability of special morphological markings also plays a role. Both proposals, Alexiadou et al. (2006) and Alexiadou (2010), fail to show the dependency of the causative structure on aspect.
In (42a), the verb appears without any perfectivizing prefix, thus the atelic interpretation of the predicate is an option here.\(^8\) With the atelic reading, the causer in the subject position is deviant. In (42b), the verb is telic due to the presence of the prefix *o* as a marker of Situation Aspect – and the causer is felicitous in such a constellation.

(42)  

\(\text{a.} \quad *\text{Silny wiatr} \quad \text{budził} \quad \text{Tomka}\)  


\(\ast\)‘The strong wind was waking up Tom.’  

\(\text{b.} \quad \text{Silny wiatr} \quad *\text{o-budził} \quad \text{Tomka.}\)  


‘The strong wind woke up Tom.’

In the German example under (43a), which, together with (43b), was taken from Schäfer (2008), the causer argument is impossible with the atelic predicate. If a PP that results in the sentence being interpreted as telic is added (the case of (43b)), a causer in the subject position becomes felicitous.

(43)  

\(\text{a.} \quad *\text{Der Wind rollte den Ball}\)  

German  

the wind rolled the ball

\(^8\) The other possibility is the generic (hence telic) interpretation which will be discussed in section 2.5 of this chapter.
b. Der Wind rollte den Ball über die Torlinie
the wind rolled the ball across the goal-line

Schäfer (2008) used the standard PP test to prove that the predicate as it appears in (43a) is atelic, whereas the example under (43b) represents a telic syntax. The verb *rollen* ‘to roll’ in (43a) can only appear with the durative phrase, whereas *rollen* in (43b) tolerates only a time-span PP. This is illustrated in (44).

(44) a. Hans rollte den Ball (*in fünf Minuten / fünf Minuten lang)
Hans rolled the ball (in five minutes / five minutes for)

b. Hans rollte den Ball (in fünf Sekunden / *fünf Sekunden lang)
Hans rolled the ball (in five seconds / five seconds long)
über die Torlinie.
across the goal-line (Schäfer 2008)

The same licensing restrictions were found in English, Italian (Folli and Harley 2005) and in Malagasy (Travis 2005). Note that the status of CAUS as proposed by Alexiadou at al. (2006) – i.e., the fact that this special verbal head is present in both anticausatives and causatives and does not influence the argument structure – cannot explain such restrictions.
In the next parts of this chapter, we will review proposals which aim at solving the puzzle of the aspect-causation dependency.

### 2.4 Causation and telicity

All the proposals for review in this section represent so-called *constructionist* approaches as they no longer use lexical semantics of a verb to determine its syntax (as was the case of theories advocated by *lexicalists*). In order to explain the phenomenon of verb alternation, constructionists appeal to different syntactic structures (with different functional categories) in which verbs are inserted. According to this theoretic approach, the nature of causation lies in a specific event composition that relies on layers of structure representative of Situation Aspect in the sense of Smith (1991).

Folli and Harley (2005) observed that, in Italian and English, causer arguments in the subject position of v are possible in a resultative context; that is, they are felicitous if the complement of v is a small clause. This is the case of the Italian example in (45a), where the clitic *si*, as the realization of v, selects a state complement. (45b), which appears without the clitic, is ungrammatical with the causer as an external argument. Note that, similar to other telic predicates in Italian, *mangiare* ‘eat’ in (45a) appears with the auxiliary *essere* ‘be’.
(45)  a.  Il mare si è mangiato la spiaggia.
     The sea Refl is eaten the beach
     ‘The sea ate away the beach.’

b.  *Il mare ha mangiato la spiaggia
     ‘The sea has eaten the beach.’ (Folli and Harley 2005)

In the English pair below, only (46a) with a causer argument is acceptable – in (46b) the same argument is deviant. A structural difference is responsible for the discrepancy. (46a) contains a particle which realizes a secondary predicate projecting a small clause. In this case, the complement of v encodes the final state as in the parallel Italian clause (45a). (46b), on the other hand, lacks the particle; here the complement of v is a nominal (Incremental Theme).

(46)  a.  The sea ate away the beach.

b.  *The sea ate the beach.

Relaying on such evidence, Folli and Harley (2005) argue for the following correlations between external arguments and complements:

   i)  If a causer is acceptable in the subject position of v, then the complement of v must be a small clause.
ii) If the external argument of v must be an agent, then the complement of v may be either a small clause or a nominal.

The correlation described in (i) defines the CAUSE “flavor” of v, whereas the second constellation signals the DO “flavor” of v.

If applied to the syntax of anticausative sentences with causers, Folli and Harley’s approach leads to the conclusion that in such a syntax, v_{CAUSE} is present. Recall that causers necessarily need a telic syntax in order to be licensed; this restriction applies not only to canonical nominative causers but also to causer PPs and dative unintentional causers:

\[(47)\quad \text{Causer-PP:}\]

a. *Der Ball rollte durch den Wind German
   The.Nom ball rolled through the wind

b. Der Ball rollte durch den Wind über die Torlinie
   The.Nom ball rolled through the wind across the goal-line
   ‘The ball rolled through the wind across the goal line.’

(Schäfer 2008)
(48) Oblique Causer (Unintentional Causer):

a. *Dem Torwart rollte der Ball

The.Dat goalkeeper rolls the ball

b. Dem Torwart rollte der Ball versehentlich über die Torlinie

The.Dat goalkeeper rolls the ball inadvertently across the goal-line

‘The goalkeeper rolls the ball inadvertently across the goal line.’

(Schäfer 2008)

In (47b) and (48b), both types of causers are acceptable in the resultative/telic construction, whereas in the (a) examples the atelic predicates with causers are deviant.

Note however, that if the presence of v\textsubscript{CAUSE} in the anticausative frame is to be assumed, it must be followed by an explanation – why such a v, which is capable of licensing external arguments, fails to do so in the intransitive frame.

In Ramchand’s (2008) approach, such a problem is solved through a further decomposition of verbal projections. The event structure of causatives proposed by Ramchand is shown in (49).
In this approach, the causing projection introduces the external arguments (which makes it parallel to little v/Voice) but does not represents the causation event, which comes as a result of a specific composition. The assumption behind (49) is that the event structure is built up recursively from successfully embedded subevent descriptions and ‘subject predications’: first, the result projection is composed of the result (state) subevent (the complement of resultP) and the subject of the result state. This projection provides content to the next (sub)event which is processP. Such a structure, composed now of two (sub)events, becomes a complement for the causing projection (which has the subject of cause in its specifier position). In isolation, any of the projections in (49) can be responsible for the causative semantics.

The tree in (49) represents a maximal possible event decomposition; a satisfactory verbal projection may contain only processP which is the necessary core of each dynamic predicate. The initP is present only when the verb expresses the source (the INITIATOR in
Ramchand’s terminology) of the process, whereas the presence of resP depends on whether the predicate expresses a result state or not. Anticausative verbs lack the initiator predicational structure and are composed of the process and the result projections. Note that such decomposition guarantees the presence of the causation event in inchoatives as this event is read off the resP and procP complex.

Recall the connection between telicity as situation aspect and causative structures introduced in section 2.3 of this chapter: causers are only licensed in telic contexts. The relation between the result state and the c-commanding process event illustrated in (49) above, leads, indeed, to a telic interpretation. Schäfer (2008), who adopts Ramchand’s (2008) proposal, illustrates this relationship by using more traditional categorial labels:

\[(50)\]

\[
\begin{array}{c}
\nu P \\
\nu <e> \\
\text{theme} \\
PRED<state>
\end{array}
\]

The specific connection between \(\nu<e>\) and PRED<state> is the source of telicity. Moreover, if the truth of \(<e>\) leads to the truth of \(<\text{state}>\), the causative interpretation is available.
To conclude this section, let us state that the projection of the CAUS head being responsible for licensing causers in both causatives and anticausatives (cf. Alexiadou et al. 2006) is unnecessary under the sketched approach; causative relations are results of the complex resultative event structure. (cf. Ramchand 2008, Schäfer 2008, 2012). How anticausative morphology fits into this structure will be our next endeavor.

2.5 Anticausative morphology and syntax

An example of the anticausative morphological pattern in Polish is given in (51): the verb złamały ‘broke’ appears in an inchoative form with the reflexive się and agrees in Gender and Number with the Nominative internal argument okulary ‘glasses.’

(51) Złamały się okulary. Polish
     ‘The glasses broke.’

A similar pattern is found in languages like German, Italian, French, Spanish, among others, which use reflexives as a morphological device for anticausatives. Greek and Albanian mark inchoatives with non-active Voice morphology – a tool with parallel functions to reflexive clitics (pronouns) from the first group of languages.
(52)  a.  Die Tür öffnete sich.
   the door opened REFL        (German, Schäfer 2008)

   b.  La finestra si è chiusa.
   the window REFL is closed

      ‘The window closed.’        (Italian, Folli 2002)

   c.  L’image s’agrandit.
   the picture REFL becomes-wider

      ‘The picture is becoming wider.’        (French, Labelle 1992)

   d.  I supa kege te.
   the soup.NOM burns.NACT

      ‘The soup is burning.’        (Greek, Schäfer 2008)

All the languages exemplified in (52) also have a class of anticausatives which appear without special morphology, and inchoatives for which the marking is optional:

(53)  Unmarked anticausatives:

   a.  Die Vase zerbrach.
   the vase broke        (German, Schäfer 2008)

   b.  La temperatura è diminuita.
   the temperature is decreased

      ‘The temperature decreased.’        (Italian, Folli 2002)
c. La neige fond.
the snow melts
‘The snow is melting.’  
(French, Labelle 1992)

d. I sakula adiase.
the bag.NOM emptied.ACT
‘The bag emptied.’  
(Greek, Schäfer 2008)

This phenomenon is not found in Polish which does not seem to have unmarked anticausatives. However, there is another type of morphological split, represented in the class of Polish inchoatives: Polish verbs in the anticausative frame may appear with or without a perfectivizing prefix. An example of a prefixed verb is given in (54), whereas the unprefixed form appears in (55).

(54)  
a. Aktor z-łamał stołek. causative

Actor.Nom Pf.broke stool.Acc
‘The actor broke the stool.’

b. Stołek się z-łamał. anticausative

Stool.Nom Refl Pf.broke
‘The stool broke.’
The two groups of Polish inchoatives differ in the type of aspectual meaning often associated with Situation Aspect in the sense of Smith (1991): the prefixed variants represented in (54b) express a final state, and are therefore telic. With the unfixed anticausatives -- (55b), two interpretations are possible:

i) The imperfective, ongoing reading, which may be imposed by a “when” clause as in (56):

(56) Kiedy rozbudzony Jan ponownie spojrzał na scenę, pod aktorem

When awaken John again looked at stage, under actor.Instr

łamał się stołek.

broke Refl stool

‘After being awakened, when John looked at the stage again, a stool was getting broken under an actor.’
ii) Generic reading: i.e., the same event (let it be the breaking of a stool) occurred more than once and, what is crucial, is that the event lead to the final state (a stool being broken) each time. Since the resultant state is reached, the generic interpretation is telic (c.f. Borik 2002).

(57) Stołek się łamał.
Stool.Nom Refl broke
‘The stool broke more than once.’ / ‘Stools broke more than once.’

The same difference in aspectual meaning – telic versus atelic – is associated with a particular difference in morphological marking in Italian by Folli (2002). If an Italian anticausative appears with the reflexive clitic *si*, then its interpretation is telic. An example of such an intransitive is given in (58) – the grammaticality of the time-span PP proves the encoding of the final state:

(58) La finestra si è chiusa in un secondo.
the window REFL is closed in one second
‘The window closed in one second.’

In (59), the inchoative appears without *si* and the durative PP (indicating the atelic behavior of the verb) is now felicitous\(^9\):

\(^9\) Schäfer (2007) points out that some of the unmarked Italian anticausatives can build telic predicates.
(59) La temperatura è diminuita per un’ora.

the temperature is decreased for one hour

‘The temperature decreased for an hour.’

That the same semantic differences occur between marked and unmarked Italian anticausatives, on the one hand, and Polish prefixed and unprefixed inchoatives, on the other, was noted by Frąckowiak and Rivero (2011), who argued that the perfectivizing prefixes in Polish are connected to the intransitive syntax in the same way as si in the anticausative syntax of Italian. The structure of marked inchoatives in Italian proposed by Folli and Harley (2005) is given in (60a), whereas the Frąckowiak and Rivero’s (2011) proposal for Polish (perfective) anticausatives is illustrated in (60b):

(60) a. 

```
(60) a.
```

La casa si é bruciata (Italian)

the house REFL is burn

‘The house burned down.’
According to Folli and Harley (2005), Italian *si* signals the CAUSE flavor of *v* (Voice), i.e. the ability of *v* to license causers and its requirement for small clause complements. As this type of complement encodes the final state of the event, the whole predicate is telic. The same situation is represented by the structure in (60b) with different labels: the Polish perfectivizing prefix *ż-* is the realization of the light verb and signals the CAUSE flavor of *v*. To support their hypothesis, Frąckowiak and Rivero (2011) listed the following evidence:

i) Prefixes in Slavic provide a secondary predicate with a resultative phrase as complement (Svenonius 2004, Žaucer 2009). The fact that Slavic prefixes enable an intransitive verb to take an object (which is illustrated in (61b)) leads Svenonius to parallel their grammatical function to the role of Germanic particles – the prefixes are located in the resultative head *R* in the schema illustrated in (62):
(61)  
a. Ivan pisal (pisjmo).  (Russian, Babko-Malaya 1999)
   Ivan wrote (letter)
   ‘Ivan was writing a letter.’

   a’. Ivan wrote (a letter).  (English, Svenonius 2004)

   b. Ivan na-pisal *(pisjmo).
      Ivan on-wrote (letter)
      ‘Ivan wrote a letter.’

   b’. Ivan wrote up *(a letter)

(62) 

ii) Prefixes in Slavic languages mark telicity independently from the internal argument (c.f. Krifka 1992, Vitkova 2004, MacDonald 2006, a.o.). In the examples in (63), the nature of the internal argument (i.e., whether it is cumulative/non-quantized as in (63a) or quantized as in (63b)) does not play any role in the aspectual interpretation of the event: with the prefixed verb, (63a), the predicate is telic regardless of the lack of quantization of the object, whereas in (63b), the
unprefixed verb allows for the atelic interpretation despite the quantization of the internal argument. In contrast, in the English examples in (63a’) and (63b’), whether the object is a mass noun or a quantized DP is crucial for determining the Lexical/Situation aspect.

(63)  
a. Marie Terese *wypiła czekoladę w pięć minut / *pięć minut

‘Marie Terese drank the chocolade in five minutes / *for five minutes.’

a’. Dudley ate pizza #in ten minutes / for ten minutes (MacDonald 2006)

b. Olga pisała trzy listy *w godzinę / godzinę

‘Olga was writing three letters for an hour.’

b’. Dudley ate a pizza in ten minutes / #for ten minutes (MacDonald 2006)

iii) Inanimate subjects in transitive sentences are infelicitous with Polish verbs in their imperfective, unprefixed variant; if a perfective prefix is present on a verb in the transitive structure, then such subjects become grammatical.

We saw an example of a prefix licensing nominative causer in (42b) – contrasted with a structure in which the verb remained unprefixed and the causer role was deviant (42a). I repeat these examples below. Note that, as (42c) proves, an animate subject is unproblematic for the unprefixed verb.
Frąckowiak and Rivero (2011) conclude that perfective prefixes in Polish signal v\textsubscript{CAUSE} in both causatives such as (42b) and anticausative variants such as (60b).

Before I move on to anticausatives without prefixes, let me specify that my analysis pertains to the class of lexical prefixes which in the literature on Slavic aspect are located in the vP domain (c.f Svenonius 2004, Romanova 2007, Žaucer 2009, a.o.). Another type of prefixes, the superlexical prefixes, are argued to be found outside of the vP and above the Viewpoint Aspectual Phrase. The superlexical prefixes, unlike the lexical ones, can co-

occur with other prefixes and contribute meanings of quantification and measure. Examples of such prefixes in Polish are: po- and na-. Po- has the distributive reading “a little”; na- comes with the cumulative reading “a lot”. Contrast (64a) which contain the lexical perfectivizing prefix prze-, with (64c) which has the lexical prefix prze-, the
secondary Imperfective operator -yw- located in the Viewpoint Aspect (Frąckowiak and Rivero 2011) and the superlexical prefix na-. Na- cannot be merged if the secondary imperfective operator is missing and the verb comes with the lexical prefix only – (64b).

(64) a. Jan przełamał gałązkę.  
   John.NOM PRZE-broke branch.ACC  
   ‘John broke the branch in half.’

b. ?Jan naprzełamał gałązek  
   John.NOM NA-PRZE- broke branch.Gen  
   ‘John broke the branch in half.’

c. Jan naprzełamywał gałązek  
   John.NOM NA-PRZE-YW-broke branch.ACC  
   ‘John broke a lot of branches.’

Under the proposal of Frąckowiak and Rivero (2011), anticausatives which carry no prefixes, i.e. so-called primary imperfectives as in (55), contain v\textsubscript{DO}: what allows to “sense” the DO flavor of Voice is the fact that the primary imperfectives do not tolerate causers and do not encode a resultant state.

(55) a. Aktor łamał stołek.  
   Actor.Nom broke stool.Acc  
   ‘The actor was breaking the stool.’
b. Stołek się łamał.  
Stool.Nom Refl broke  
‘The stool was getting broken.’

Note that the existence of primary imperfective anticausatives is a divergence from this crosslinguistically observed pattern which we discussed in section 2.2:

(40) Only transitive verbs that do not restrict the Θ-role of their external argument to agents enter the causative alternation. (Schäfer and Vivanco, To appear: 4)

Imperfective transitive verbs do restrict the Θ-role of their external argument to agents, as (65a) and (65b) show, but nonetheless they form anticausatives – (65c).

(65)  
Thunder.Nom burned.lpf house.Acc  
‘Thunder was burning the house.’

b. Jan palił gazetę.  
Jan.Nom burned.lpf newspaper.Acc  
‘John was burning newspaper.’

c. Dom się palił.  
House.Nom Refl burned.lpf  
‘The house was burning.’
I suggest that the pattern in (40) applies only to transitive verbs in resultative constructions, i.e. constructions with the causative light verb and a small clause as an internal argument. (Recall that Folli and Harley (2005) specified that if a causer is acceptable in the subject position of \( v \), then the complement of \( v \) must be a small clause.) The imperfective constructions contain \( v_{\text{DO}} \), and no resultative phrase, hence the syntactic structure of their anticausative counterparts differs significantly from the one of prefixed anticausatives.

Example (66a) below represents the syntactic structure of primary imperfectives proposed by Frąckowiak and Rivero (2011). Note that a similar structure becomes ungrammatical just with a change of the [+process] feature on the verb. That is, if there is [-process] instead of [+process] on the verb, the reflexive clitic \( \text{się} \) becomes a reflexivizer. As a consequence, the sentence is deviant because the specifier of \( v \) is identical to the complement of \( V \). This illicit structure is shown in (66b).

(66)a. 

```
\[
\begin{array}{c}
\text{ołówek} \\
\text{się} \\
\text{łamał} \\
\text{[+process]} \\
\end{array}
\]
\hspace{2cm}
\begin{array}{c}
\text{v} \\
\text{v'} \\
\text{VP} \\
\text{DP} \\
\end{array}
\]
```

Ołówek \( \text{się} \) \( \text{łamał}. \)

Pencil.Nom.Masc \( \text{Refl} \) broke.Sg.Masc

‘The pencil was getting broken.’

(66)b. 

```
\[
\begin{array}{c}
\text{peruka} \\
\text{się} \\
\text{gubiła} \\
\text{[-process]} \\
\end{array}
\]
\hspace{2cm}
\begin{array}{c}
\text{v} \\
\text{v'} \\
\text{VP} \\
\text{DP} \\
\end{array}
\]
```

*Peruka \( \text{się} \) \( \text{gubiła}. \)

Wig.Nom.Fem \( \text{Refl lost.} \) Sg.Fem

‘The wig was getting lost.’
Recall that there are two possible readings of imperfective anticausatives: generic/iterative (‘The pencil broke more than once’) and ongoing (‘The pencil was getting broken’). The latter requires a temporal phrase in order to be generated; this was exemplified earlier in the chapter by (56), which I repeat below:

(56) Kiedy rozbudzony Jan ponownie spojrzał na scenę, pod aktorem łamał się stołek.

When awaken John again looked at stage, under actor.Instr broke Refl stool

‘After being awaken, when John looked at the stage again, a stool was getting broken under an actor.’

Both generic and ongoing readings are generated in the domain of Viewpoint Aspect and as it will be argued in Chapter 4 of this thesis, each of these readings is brought by a different Imperfective Operator located above vP. The feature [+process] on the verb must agree with the Imperfective Operator in the Viewpoint Aspect for the ongoing reading to be generated.

I argue that Polish primary imperfectives of the type shown in (67) have an implicit operator above the Voice Phrase in the Viewpoint Aspect and I support my claim by contrasting them with atelic constructions of the type in (68).
Verbs in both these constructions do not carry any aspectual morpheme; there is neither perfectivizing prefix nor secondary imperfectivizing affix in either of them. (68) is atelic – the object *Cavaradossim* does not provide an endpoint to the event of shaking – in the words of Tenny (1994), it does not measure-out the event. (67) is also atelic but only with the ongoing interpretation, reflected by the English progressive: ‘Tosca was waking up Cavaradossi.’ Note the difference in the objective case – the object in (67) appears in the Accusative case whereas the object in (68) is in Instrumental. Kratzer (2004) argued that the interpretable feature [telic] on little v is responsible for the assignment of the uninterpretable [accusative] on the direct object.\(^\text{10}\) I will apply Kratzer’s (2004) analysis of

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\(^{10}\) In the Minimalist Program, formal features appear in pairs: one of the members of a pair is semantically interpretable, the other is not. The uninterpretable feature must be matched with its interpretable counterpart and then eliminated; checking is driven by legibility conditions at the interfaces (PF and LF).
German sentences as in (69B) to (67) with the ongoing interpretation. Kratzer proposed that a non-overt imperfective operator can nullify the culmination requirement (telicity) in German, therefore having the same function as the English overt progressive operator that yields to the so-called imperfective paradox (Dowty 1991). In (69), an event of climbing Mount Monadnock is interpreted as being in the progress at the reference time, although there is no overt marker that indicates such reading:

(69) Bilingual cell phone conversation:

A: What are you doing (right now)?

B: Ich besteige (gerade) den Mount Monadnock.

‘I climb (right now) the Mount Monadnock.’

Kratzer proposed that the non-overt progressive operator resides above Voice Phrase and thus, operates over [telic] located in the v head. It renders predicates that mimic atelic

example of such a pair is the gender feature in Slavic: in the sentence given below, the gender feature on the subject noun phrase has a semantic content (feminine) while the matching gender feature on the verb *odnalazła* ‘found’ cannot indicate any semantic value independently. We label the latter as uninterpretable and expect it to be deleted when matched with its interpretable counterpart on the subject noun phrase.

(1) *Leonore odnalazła Florestan.‘*


‘Leonore found Florestan.’

In the Minimalist Program of Chomsky (1999), Case is not treated like Slavic gender (or, crosslinguistically, number - another example of paired features) since it does not have any semantic content. It serves as an exception then: a pure uninterpretable feature with nothing to be checked with. We could tie the Accusative from the sentence in (1) to the grammatical function of an object, and justify the case in that manner. Another possibility is to look at the functional architecture of clauses – this path led Kratzer (2004) and Svenonius (2002b), a.o., to the domain of Aspect as the bearer of the interpretable component of uninterpretable Accusative. The licensing position for [acc], though, was tied to the little v.
VPs. As the English (overt) imperfective aspect operator, it belongs to the domain of Viewpoint (Grammatical) Aspect.

I will argue that we encounter the same situation in the Polish sentence in (67).

The head of Voice bears the interpretable [acc] feature, hence it is responsible for the assignment of the nominal [acc]. The interpretable [acc] feature is, in other words, [telic]. A non-overt imperfective operator located in the Viewpoint Aspect operates over [telic] and nullifies the culmination requirement – with the ongoing interpretation and atelicity being the results.

Note that (67) has also the generic and iterative readings available, both considered telic, and the factual reading, which, as I will argue in Chapter 4, implies telicity. I suggest the [telic] feature is a default feature on Polish verbs that consist of at least two verbal projections in the sense of Ramchand (2008): result projection and process projection (see section 2.4 of this chapter for a description of Ramchand’s proposal). The atelic example in (68), repeated below, lacks the result projection and hence lacks the feature [telic] on Voice. The Accusative case is not assigned.

(68)  

Tosca trzęsła Cavaradossim.  


‘Tosca shook Cavaradossi.’
I conclude that the atelicity of sentences of the type in (68) originates from its syntactic construction whereas atelicity of the primary imperfectives exemplified in (67) comes from a non-overt Operator located in the domain of Viewpoint (Grammatical) Aspect.

In the case of the generic interpretation, the syntax of the unprefixed anticausatives resembles that of inchoatives with prefixed verbs: the little v is causative and requires a small clause complement. In its causative variant, it allows causers in its specifier, as (70) shows:

(70) Silny wiatr zawsze budził Tomka.
    ‘The strong wind always woke up Tom.’

For the structure representing anticausative imperfective constructions when interpreted as generic, such as *Stołek się łamał* ‘The stool broke more than once,’ I argue that the item that realizes \( v_{\text{CAUSE}} \) is not a prefix (as it was the case of prefixed anticausatives) but a null operator with a [telic] feature in the spirit of Kratzer (2004). A non-overt Generic operator resides above Voice Phrase and thus, operates over [telic] located in the v head. It does not cancel the requirement for culmination and hence differs from the Ongoing operator that renders atelicity. As the English (overt) imperfective aspect operator, the Generic operator also belongs to the domain of Viewpoint (Grammatical) Aspect.
Let us sum up. Perfectivizing prefixes in Polish anticausatives have parallel functions to inchoative *si* in Romance (As Folli and Harley 2005 report, reflexive clitics have identical functions in Italian and Spanish inchoatives): they select a state complement encoding the final state; in other words, they mark telicity understood as a manifestation of Situation Aspect. They also signal the Cause flavor of little v – from a complement of the verb where they originate building a small clause, they move to the head of the little v (see Svenonius 2004). On the other hand, Polish reflexive *się* marks anticausativity as its Italian and Spanish counterparts, but differs in structural status from clitics in Romance: it merges in the specifier of v\_CAUSE. Note, that, *się* of primary imperfectives realizes little v and thus parallels Italian inchoative *si*, but it does not signal the Cause flavor of Voice. The complement of the verb in the primary imperfective form may be nominal: (66a).

Having acknowledged the possibility of a telic unprefixed variant of Polish inchoatives, I conclude this chapter with the following proposal for perfective anticausative structures, illustrated in (71a) below:
A perfectivizing prefix in Polish (such as z- in (71a)) moves from the resultative (R) head to the verbal (V) head (c.f. Svenonius 2004), and, finally, realizes v (Voice) with the causative “flavor”. In transitives, such a type of Voice can license Causer external arguments; in the anticausatives represented in (71), it provides the reflexive się with the thematic role of a causer (c.f. Frąckowiak and Rivero 2011).

We are ready now to “enrich” anticausatives with dative logical subjects.
3. Dative Anticausative Constructions

3.1 Introduction

In this chapter, the term “Dative Anticausative Construction” (DACs) is used for the anticausatives containing a dative logical subject interpreted as the causer of a change-of-state event. This condition limits the core of DACs to telic inchoative structures; recall that, crosslinguistically, with change-of-state verbs, causers are licensed in telic/resultative contexts only. In the anticausative atelic frame of (1a) and (1b), dative causers are ungrammatical (another type of causer arguments – nominative – could not be licensed in intransitives). However, as soon as we create a telic context, which in the Polish sentence is done by adding a perfectivizing prefix, and in the German – by adjoining a specific PP, the dative causer reading becomes felicitous – (2a) and (2b):

(1) a. Paulinie moczył się zegarek.
   NO *‘Paula was getting the watch soaked.’
   YES ‘Paula’s watch was getting soaked.’
   (Polish, Frąckowiak and Rivero 2011)
Recall that we concluded Chapter 2 of this thesis with a proposal for two different structures for anticausative constructions, one with $v_{CAUSE}$, the other with $v_{DO}$. They will be our starting point in this chapter. These structures plus the Dative – whose syntactic nature we still have to determine – should lead us to an explanation of the connection between telicity and the unintentional causer reading in DACs on the one hand, and the connection between atelicity and the lack of such reading on the other. That will be our main quest. Before we tackle the main problem, I will summarize the characteristics of DACs and list the restrictions on their Dative subject – section 3.2, knowing these restrictions will be useful for our discussion on the syntactic nature of the Dative subjects.
in DACs. We will consider two proposals: i) Dative subjects in DACs as canonical external arguments – section 3.3; and ii) Dative subjects in DACs as applicatives – section 3.4. Section 3.5 brings the discussion on the link between causation and telicity in DACs and differentiates Polish DACs from their Italian and German counterparts. Section 3.6 concludes this chapter.

I will argue that in Polish, dative DPs are interpreted as Unintentional Causers if applied to intransitives with:

i) CAUSE flavor of Voice/little v; and

ii) The resumptive pronoun (reflexive) for the dative in an Applicative Phrase. Polish DACs differ from their counterparts in German and Romance with respect to the syntactic role of the reflexive which in Italian and German is not a pronoun but an expletive with no thematic role for the Dative.

3.2 Characteristics of Dative Anticausative Constructions

The causer of DACs differs from the canonical nominative causer in that it has the following semantic restrictions:

a) It must be human;


Non-human causers are infelicitous in DACs:
(3) *Deszczowi zamoczył się zegarek.

‘The rain got the watch soaked.’

By contrast, (4) contains a causative variant of (3) with the grammatical use of a non-human subject.

(4) Deszcz zamoczył zegarek.

‘The rain got the watch soaked.’

In (5a), we combine a perfective anticausative sentence containing a dative causer, firstly with an adverb stating intentionality, then with a purpose clause. Both of these adjuncts are infelicitous in this constellation. In contrast, a structure with a nominative agent – (5c) – tolerates both the adverb and the clause. As (5b) exemplifies, causers of DACs are compatible with adverbs expressing non-intentionality.

Paula.Dat Pfsoaked.Masc Refl watch.Nom (*on purpose/ *in order to make her mother angry)

‘Paula soaked her watch (on purpose / in order to make her mother angry).’
b. Paulinie zamoczył się zegarek (niechcący).


‘Paula soaked her watch (involuntarily).’

c. Paulina zamoczyła zegarek (celowo/ żeby rozgniewać mamę).

Paula.Nom Pfsoaked.Fem watch.Acc (on purpose / in order to make her mother angry)

‘Paula soaked the watch (on purpose / in order to make her mother angry).’

As it has been already reported in the introduction, the dative logical subject of DACs can be interpreted not only as unintentional causer but also as possessor (of the theme) or an affected dative participant (the subject being affected by the change-of-state event). Our example in (2a) is actually ambiguous between the following three readings, (2 (i), (ii), and (iii):

(2) a. Paulinie zamoczył się zegarek.


‘Paula got the watch soaked involuntarily.’

(Polish, Frąckowiak and Rivero 2011)

(i) ‘Paula involuntarily got the watch soaked.’ (unintentional causer reading)

(ii) ‘Paula was somehow affected by the watch being soaked.’ (affectedness reading)

(iii) ‘Paula’s watch got soaked.’ (possessor reading)
The last two readings, (2 (ii) and (iii)), are not blocked in the case of atelic syntax; the imperfective anticausative example in (1) – repeated below - still receives the following two interpretations:

(1) Pauline moczył się zegarek.


(i) ‘Paula was affected by the watch getting soaked.’

(ii) ‘Paula’s watch was getting soaked.’

Let’s summarize our observations:

i) Dative subjects cannot be interpreted as Causers if in atelic contexts;

ii) Dative causers must be human and their action is interpreted as unintentional;

iii) The benefactor/malefactor and possessor interpretation of the Dative are unaffected by (a)telicity.

3.3 Unintentional Causers as Canonical External Arguments

It is now time to determine the syntactic status of Dative Causers in DACs. In this section, I summarize Kalluli’s (2006) proposal and I list arguments against it. In section 3.5, I present an alternative account of Dative Causers.
For Kalluli (2006), the syntactic status of the dative causer is exactly the same as the one of the nominative (canonical) causer: both are introduced by little v/Voice. According to this approach, the non-intentionality reading available crosslinguistically with a dative is the result of the suppression of a specific Voice feature: [+intent]. The suppression is caused by the non-active/unaccusative morphology. As neither agent nor causer can be merged in the specifier of Voice whose [+intent] feature has been already crossed out, the affectedness dative (located in the specifier of the lower V projection) moves to VoiceP and checks the remaining [+cause] feature. (6), which represents a construction of the type in (7), illustrates the whole process.

(6)

(7) A Francesca si ruppe il vaso.
    to.DAT Francesca REFL broke the.NOM vase
    ‘Francesca unintentionally caused the vase to break.’ (Schäfer 2012: 10)

The checking of the [+cause] on Voice by the Dative that has already saturated the [+affected] feature residing on the V head results in the semantics of the ‘affected causer’.
In this proposal, the order of the features on Voice is decisive: Kalluli (2006) assumes that from the bundle of Voice features only the first is crossed out by unaccusative morphology. She argues that, in the case of agentive causatives, [+intent] happens to be this first feature.

Schäfer (2008, 2012) argues against this proposal. According to Schäfer, the following differences between the nominative causer and the oblique causer do not allow to assign the same syntactic status to these three types of causers:

(A) Oblique causers that are licensed with non-alternating unaccusative verbs even though these verbs do not project a canonical subject position:

(7) a. Das Kartenhaus ist umgefallen. (unaccusative)

   The.Nom house of cards is toppled-down

   ‘The house of cards has toppled down.’

   b. *Hans hat das Kartenhaus umgefallen. (transitive/causative)

   Hans.Nom has the.Acc house of cards toppled-down

   ‘John caused the house of cards to topple down.’

   c. Das Kartenhaus ist ihm versehentlich umgefallen. (oblique causer)

   The.Nom house of cards is him.Dat. by mistake toppled-down

   ‘He unintentionally caused the house of cards to topple down.’

   (Schäfer 2012: 17)
The verb in (7) – *umgefallen* ‘topple down’ – is a pure unaccusative; it does not have a causative/transitive counterpart as (7b) shows. Nonetheless, the oblique causer is possible in the context of this verb – (7c).

(B) Oblique causers that do not tolerate instrumental phrases (example (8a)), are different from canonical nominative causers which do allow instrumental phrases to be licensed. The latter are felicitous even if the subject acts unintentionally (example (8b)).

(8)  

a. Dem Mann zerbrach die Vase versehentlich (*mit einem Hammer)  
the.Dat man broke the.Nom vase unintentionally (with a hammer)  
‘The man unintentionally caused (with a hammer) the vase to break.’

b. Der Mann zerbrach die Vase versehentlich mit einem Hammer  
the.Nom man broke the.Acc vase unintentionally with a hammer  
‘The man unintentionally acted with the hammer so that the vase broke.’

(Schäfer 2012: 17-18)

(C) Oblique causers display a certain interpretative vagueness which is not found with nominative causers. Schäfer lists three possible interpretations of oblique causers: (a) unintentional causer, (b) involuntary facilitator, (c) unexpected, but highly intentionally acting causer. These readings are exemplified in (9):
Als dem Mädchen die Tür (dann doch noch) aufging.

Reading A: The girl accidentally opened the door (because she pushed it with her elbow while playing with her toys on the floor).

Reading B: (The mother told the girl to hold the door so that the wind could not open it, but her efforts were not enough.) The girl accidentally opened the door / let the door open.

Reading C: (All the children tried but no one could open the tightly closed door, however it happened so that…) The girl managed to open the door.

(Schäfer 2012: 18)

A note with regards to Reading C: Polish DACs do not have this reading available. In the same context provided – a group of children trying to open a box – the Polish sentence in (10) has the affectedness reading (i.e. Mary was positively affected by opening the box), hence it is not an example of a DAC:

(10) Skrzynka otworzyła się Marysi.

Box.Nom opened Refl Mary.Dat

‘Mary was affected by the box opening.’

As we saw in Chapter 2 of this dissertation, a Polish telic inchoative construction, has the specifier of little v (the place of the canonical external argument) occupied by the reflexive
się (resumptive pronoun). The Dative subjects cannot be merged into the structure as canonical external arguments since the specifier of vP has the resumptive pronoun in it. The next section presents a proposal that disagrees with Kalluli (2006) and that does not treat Unintentional Causers as arguments of the verb.

3.4 Unintentional Causers as Applicatives

Cuervo (2003), Rivero (2004), Rivero and Savchenko (2005), Schäfer (2008, 2012), Frąckowiak and Rivero (2011) all place the Dative subjects in DACs in an Applicative Phrase (in the sense of Pylkkänen 2002). The type of Applicative present in DACs (a so-called High Applicative, cf. Cuervo 2003) denotes a semantic relation between an individual (denoted by the Dative DP) and an event (denoted by the VP). Rather than being an argument of the verb, it is a syntactic adjunct with an inherent case; it does not contribute any independent thematic role. Schäfer (2008, 2012), following Cuervo (2003), argues that the semantic relation between an individual and an event is that of possession: the oblique DP “establishes an abstract, possessive have-relation between its specifier and its complement (here, the change-of-state event)” (Schäfer 2008). The construction is shown in (11).
Schäfer (2012) argues that the “possessive have-relation” in the structure in (11) is responsible for the [+human] restriction on oblique causers. He points out that it was observed by McIntyre (2006), among others, that a non-human entity can become an applied argument only if it stays in a whole-part relation either to the complement of the applicative head or to the entity embedded in that complement. In the Polish example in (12), the board was a part of the door.

(12) Jan wyłamał drzwiom deskę.
    John broke-away door.Dat board.Acc
    ‘John broke away the board from the door.’

This part-whole relation restriction between the applicative and the DP embedded in its complement does not apply to humans, as (13) shows:

(13) Jan wyłamał Markowi deskę w drzwiach.
    John broke-away Marc.Dat board.Acc in door
    ‘John broke away a board in Marc’s door.’
Since the complement of the applicative head in (11) is a small clause (resultant state), the DP possessed by the Applicative must be embedded in the complement. Schäfer argues that “it is hard to imagine that a non-human entity (e.g. a natural force) is in an inalienable [part-whole – E.F.] relation to an entity undergoing a change-of-state and, at the same time, can cause this entity to undergo the change of state. This would mean that the entity would cause the change of its subpart” (2012: 21). Hence, the human restriction on dative causers has its source in the DAC construction.

The stative character of the possessive relation in (11) is responsible for yet another restriction on the Dative subjects – the [-intention] restriction, Schäfer (2012) argues. Stative predicates cannot license agentive adverbs as (14a, b, and c) show:

(14)  

a. *John knew the answer intentionally/voluntarily/on purpose.  

b. *John had the car intentionally/voluntarily/on purpose.  

c. (*) John had Mary clean the floor intentionally/voluntarily/on purpose.

(Schäfer 2012: 21)

Note that (14c) is not stative – it involves the causative use of have. Schäfer compares (14c) to DACs; he argues that both these types of constructions involve a stative subevent. In the case of DACs such subevent results from the possessive relation in (11); in the case of sentences of the type in (14c) – from causative have. In (14c) the adverbs cannot modify John, only Mary. But as Schäfer himself points out stative predicates cannot
license ALL types of agentive adverbs – those expressing intentionality and unitentionality alike. Why do the DACs allow adverbs expressing unintentionality then? Schäfer suggests that these adverbs in Dative Anticausatives are not licensed structurally but that they are licensed by pragmatic considerations. His reasoning goes as follows. In sentences with human subjects, the default reading is that such subjects act intentionally. The use of the Dative subject over the canonical subject is a speaker’s way to avoid the default reading and to express unintentionality instead. Although I am leaving the source of [-intention] on Dative applicatives for further research, I will point out at the moment that this feature on applicatives is not exclusive to DACs only. The West Slavic and Russian Involuntary State Constructions also express unintentionality (c.f. Rivero, Arregui and Frąckowiak 2010, Frąckowiak and Rivero 2011, a.o.). Rivero, Arregui and Frąckowiak (2010) argue that the unintentionality (out-of-control) reading exemplified in (15) below should be understood in terms of an implicit circumstantial modal.

(15) Jankowi tańczyło się dobrze.

Janek.DAT danced.NEU REFL well

‘Janek danced, and could not help enjoying it.’

(Rivero, Arregui and Frąckowiak 2010: 706)

I refer the reader to the cited articles for more details. Further research should aim at explaining the unintentionality restrictions on Dative applicatives while taking into
account both types of constructions with Datives: DACs and Involuntary State Constructions.

### 3.5 Causation and (a)telicity in DACs

Recall that in Chapter 2 we provided two syntactic structures for anticausatives without the Dative: one for telic anticausatives (repeated here in (15)) and one for atelic anticausatives (repeated in (16)).

![Diagram](image.png)
DACs are generated only when an Applicative Phrase merges into the first construction – that is the construction with the v\textsc{cause} – (15). Adding dative to an imperfective/atelic anticausative in any of the languages under discussion will not result in the causer reading of the dative; oblique causes, like nominative (canonical) causes, need telic syntax in order to be licensed. Let us reformulate this using Folli and Harley’s (2005) terms:

(17) Dative DPs are interpreted as Unintentional Causers if applied to intransitives with \textit{CAUSE} flavor of Voice/little v.

Different morphological elements (perfectivizing prefixes in Polish, inchoatives \textit{se} in Spanish and \textit{si} in Italian) realize the causative \textit{v} in the languages under discussion. Note, however, that neither prefixes in Polish nor the reflexive in Italian are the only options
available to speakers for this task. As we saw in Chapter 2, even if no perfectivizing prefix is merged, a Polish anticausative construction may be perfective/telic (and, thus, lead to the Unintentional Causer interpretation of the dative: *Jankowi łamał się stolek* ‘John broke the stool involuntarily more than once’). This is the case of the inchoatives leading to generic interpretation – we saw that the verbal head in such constructions can be realized by a null element. The generic reading is generated via an Imperfective (Generic) Operator in the Viewpoint Aspect above v\textsubscript{CAUSE}P (Second Phase Syntax). We conclude that a necessary element of Polish DACs is one of the two: perfectivizing prefix, or a null element realizing v\textsubscript{CAUSE} paired with a Generic Operator located higher in the structure.

Recall that Polish perfectivizing prefixes play the same role in Polish DACs as the reflexive clitic *si* in their Italian counterparts. Schäfer (2007) pointed out that Italian anticausatives that lack *si* are not always atelic (as it was prognosticated by Folli 2002). In (18), an example of such a verb licenses the time-span PP but not the durative PP which, if felicitous, would have indicated atelicity of the structure:

(18) *Il pacchetto è esploso in un secondo / *per un secondo*  
the parcel is exploded in one second for one second  
‘The parcel exploded in one second / for one second.’ (Schäfer 2007)

The Unintentional Causer reading is still obtainable even when the inchoative *si*, which signals the CAUSE flavor of v is missing:
(19) A Francesca è bollito fuori il latte (per errore).

to Francesca is boiled.Sg over the milk (by mistake)

‘The milk boiled over on Francesca.’

‘Francesca accidentally caused the milk to boil over.’

(Schäfer 2007)

Note that the reflexive in Polish has a different syntactic status from its Italian and Spanish counterparts. Frąckowiak and Rivero (2011) put się in the specifier of the $v_{\text{CAUSE}}$ Phrase and interpret the reflexive as a bearer of the causer thematic role. The high applicative phrase contributes in such a structure by providing a reduced intentionality only – this limited semantics interacts with the causer role on się which represents a resumptive pronoun for the dative. The effect is the familiar Unintentional Causer reading.

The schema of Frąckowiak and Rivero’s (2011) proposal is presented in (20).
The above proposal treats the reflexive as a necessary element for the Oblique Causer reading to be obtained in perfective/telic structures. My Polish database of (perfective) anticausatives cannot provide us with a proof of the compulsory status of się in DACs as it seems to lack any example of a structure without the reflexive. (We cannot concoct an example in which the unintentional causer reading will be blocked due to the absence of się). However, relevant examples which show that, indeed, the proposal of Frąckowiak and Rivero (2011) is on the right track can be found among Polish non-alternating unaccusatives: if they lack the reflexive, the applied dative cannot be interpreted as an unintentional causer even in the presence of telic syntax. In all the examples in (21), the unintentional causer reading is blocked – the adverb expressing involuntariness is deviant in each case:
    John.Dat (involuntarily) Pf.rotted tomato.
    NO: ‘John caused the tomato to rot involuntarily.’

    b. Jankowi (*niechcący) zakwitły kwiaty
    John.Dat (involuntarily) Pf.bloomed flowers
    NO: ‘John caused the flowers to bloom involuntarily.’

Recall that in German we saw an opposite situation – DACs were felicitous with ‘pure’ unaccusatives:

(7)  c. Das Kartenhaus ist ihm versehentlich umgefallen. (oblique causer)
    The.Nom house of cards is him.Dat. by mistake toppled-down
    ‘He unintentionally caused the house of cards to topple down.’
    (Schäfer 2012: 17)

That non-alternating Polish unaccusatives are nonetheless causative becomes evident in (22) where another type of causer – the one that is introduced by a specific preposition (in the case of Polish: od ‘from’) – is licensed.
(22) Kwiaty zwiędły od gorąca.

Flowers.Nom. Pf.wilted from heat.Gen

‘The flowers wilted from the heat.’

The deviance of the causer reading in (21) prompts us to add another condition to our claim in (17), in order to describe the situation in Polish precisely.

(23) In Polish, dative DPs are interpreted as Unintentional Causers if applied to intransitives with:

i) CAUSE flavor of Voice/little v

ii) The resumptive pronoun (reflexive) for the dative in the specifier of voice

The latter condition makes Polish contrast with other languages discussed in this dissertation. On the one hand, as we saw in Chapter 2, si in Italian (and also se in Spanish, cf. Folli and Harley 2005) represents an expletive not a pronoun, and does not bear any thematic role. (Italian si and Spanish se have the same function as the reflexive in Polish primary imperfectives). On the other hand, in German, the role of the reflexive sich in anticausatives with a dative has the opposite role relative to się in Polish DACs; as Schäfer (2007) reports, reflexive sich blocks the Unintentional Causer reading. In the pair of examples taken from Schäfer (2007), the oblique causer interpretation is obtainable only with the unmarked anticausative in (24b); (24a) containing a morphologically marked anticausative (i.e. anticausative with sich) is deviant with the causer reading.
3.6 Conclusions

In the languages discussed in this dissertation (i.e. Polish, German, Italian and Spanish), the Unintentional Causer interpretation of dative logical subjects surfaces only with telic/resultative syntax. For Ramchand (2006), telicity of anticausatives is the result of a c-commanding relation between a process event and a state which is introduced by a resultative phrase (result projection in Ramchand’s terms). In this dissertation, I adopted the view of Folli and Harley (2005), which correlates the presence of the resultative phrase with the projection of causative Voice, i.e. Voice that licenses causers. Polish displays two types of anticausatives: perfective/telic, with the resultative phrase projected, and imperfective/atelic, dubbed primary imperfectives, which lack the result state. Perfective anticausatives resemble transitive structures in that they contain a thematic Voice licensing causers. However, in the case of inchoatives, the bearer of the causer role is the
reflexive się – the maximal projection of Voice Phrase. The projection of się is compulsory in the structure of Polish anticausatives – a situation not found in languages like German, Italian and Spanish which, alongside morphologically marked anticausatives, display inchoatives without special morphology. The Polish reflexive functions as a resumptive pronoun for the dative in Dative Anticausative Constructions; as Frąckowiak and Rivero (2011) claim, the causer role of the pronoun interacts with the [-intention] feature of the dative which is merged in the head of the High Applicative Phrase (c.f. Cuervo 2003, Rivero 2004). As a result of such interaction, the dative is interpreted as Unintentional Causer of the change-of-state event. In Polish primary imperfectives (i.e. anticausatives with atelic syntax), się occupies the Voice head position, hence it does not bear any theta-role and cannot build up the Unintentional Causer interpretation with the dative head. Although in primary imperfectives the syntactic position of the Polish reflexive clitic is exactly the same as the one of reflexives in Italian and Spanish anticausatives, its status is different: Italian si and Spanish se function as markers of telicity – their presence in the anticausative structure signals the causative type of Voice and the option of interpreting dative applicatives as Unintentional Causers. This function of marking telicity is reserved in Polish for perfectivizing prefixes – but these prefixes are not present in the syntax of Polish atelic anticausatives/primary imperfectives.
4. When Epistemic Modal Needs Imperfective Aspect

4.1 Introduction

This chapter provides evidence in support of the imperfective being a semantically vacuous morpheme whose presence is guaranteed by specific conditions that rule out the perfective. It enriches the recent discussions concerned with the puzzle of how to account for various readings of the imperfective (Cipria and Roberts 2000, Hacquard 2006, Deo 2009) by providing a semantic analysis of an interpretation not attested in languages like French, Italian and Spanish on which the discussions have focused so far. I argue that the Russian and Polish patterns dubbed as Existential Factual Imperfectives (cf. Grønn 2003) carry a silent Epistemic Modal that selects the imperfective due to its right semantic type: \(<s,t>\) in contrast to the \(<t>\) type of the perfective.

This chapter is organized as follows. In section 4.2, I introduce the Polish and Russian Existential Factual Imperfective (EFI from now on) and I explain how the reading of these constructions differs from readings obtainable with the imperfective aspect in Romance. In section 4.3, I discuss the Viewpoint Aspect in Polish and Russian and I summarize some recent accounts of Factual Imperfectives. Section 4.4 presents Portner’s (2003) proposal for the English Perfect and compares the semantics of EFIs with the semantics of English
Perfect. In section 4.5, first I introduce the Situation Framework and then I develop an account of EFIs in such a framework. Section 4.6 concludes this chapter.

### 4.2 Introducing Existential Factual Imperfective

The Polish (Pol) and Russian (Rus) constructions in (1-2), and their counterparts in other Slavic languages, have recently attracted attention (Grønn 2003, Dočekal and Kučerová 2009, Altshuler 2012, a.o.) due to the complete event denotation in the presence of the imperfective (lpf) past.

\[(1)\]
\[\begin{array}{ll}
\text{(1)} & \text{a. Czy} \quad \text{kiedykolwiek} \quad \text{rzucales} \quad \text{dziewczynę?} \quad \text{Pol} \\
& \text{operator} \quad \text{ever} \quad \text{throw.lpf.Past.2Sg.Masc} \quad \text{girlfriend.Acc} \\
& \text{‘Have you ever broken up with a girlfriend?’} \\
\text{b. A: Pięknie} \quad \text{u-dekorowali} \quad \text{choinkę.} \\
& \text{Beautifully} \quad \text{prefix-decorate.Past.3Pl} \quad \text{Christmas tree.Acc} \\
& \text{B: Kto} \quad \text{dekorowal} \quad \text{?} \\
& \text{Who} \quad \text{decorate.lpf.Past.3Sg.Masc} \\
& \text{A: ‘They decorated the [Christmas] tree beautifully.’} \\
& \text{B: ‘Who decorated it?’} 
\end{array}\]
(2) a. Ty kogda-nibud’ razbival’ cennuju vazu? Rus (Padučeva 1996: 51)

‘Have you ever shattered a valuable vase?’


‘Who gave shoes [as a gift]?’

Sentences of the type in (1a) and (2a) entail the existence of a past event but also make a claim about “a current state of affairs” (Grønn 2003: 26). Their interpretation has been compared to that of the English Perfect (cf. Borik 2006, a.o.). On the other hand, the imperfective morphology in (1b) and (2b) is justified because the events over which the verbs predicate are already present in the discourse context. Neither of these two types of imperfectives is attested in languages like Spanish, French or Italian, on which the recent discussions on the imperfective (cf. Cipria and Roberts 2000, Hacquard 2006, Deo 2009) have focused so far.

The analysis for such patterns (dubbed factual imperfectives, FI, cf. Grønn 2003)\(^\text{11}\) will be conducted in the framework of situation semantics (Kratzer 1989, 2014). The core proposal is that an interpretation of factual imperfectives is dependent on an event from a discourse. What is interesting, in the contexts in which FI are acceptable, is that perfective constructions are deviant. This chapter will solve the puzzle of why the perfective is

deviant in such configurations and what is the property of the imperfective that is responsible for the readings in (1-2).

The syntax of factual imperfectives is characterized by two properties:

(i) A verb either in its primary imperfective form (with no prefixes and suffixes as in (1a), (1b) and (2b) above) or with the so-called secondary imperfectivization morpheme (e.g. suffix -iv in (2a));

(ii) The lack of any temporal clause or temporal argument. Let us compare Polish (3b) with Italian (3a). According to Giorgi and Pianesi (2004), the Italian sentence, if uttered without any temporal referent provided by the context, is infelicitous. Its Polish counterpart in (3b) is perfectly fine:

(3) a. #Gianni studiava matematica. Ita
   ‘Gianni studied.lpf. math.’ (Giorgi and Pianesi 2004: 261(2))

b. Jan studiował matematykę. Pol
   John studied.lpf. math
   ‘John studied math.’ / ‘John has studied math.’

The literature on Slavic aspect (Forsyth 1970, Padučeva 1996, Grønn 2003, a.o.) discusses two ways in which FIs make claims about complete events: the event denoted by the verbal predicate can be either focused/asserted or backgrounded/presupposed. (1a) and (2a) above exemplify the first type, dubbed existential (Grønn 2003, a.o.): in both
sentences the intonational focus lies on the verbs and what is being introduced to the discourse in each case is the existence of an event. Moreover, although existential FIs refer to some event in the past, the focus of the speaker is actually “on the current state of affairs” (Grønn 2003: 26). At the utterance time of (1a), it is important whether the addressee has the property of being a causer of a break-up. Similarly, at the time of the utterance of (2a), it is relevant whether the addressee experienced the event in question or not. In the second type of FI, dubbed presuppositional (Grønn 2003) or actual (Forsyth 1970, Padučeva 1996), no such relevance between the past event and the “current state of affairs” occurs. One view on this group of FI is that the existence of the event referred to is already given or presupposed in the context/in the discourse (cf. Grønn 2003). Note that in (1b) and (2b), which represent this class of FIs, the focus lies not on the verbs but on another constituent.

Since I will use the labels presuppositional and existential in my dissertation, I must clarify here that what matters for the present research in such a distinction is not the presence or absence of an event presupposition but rather the relation of the (past) event, over which the verb predicates, to the discourse topic. I adopt Büring’s definition of discourse topic: “a set of sentences/propositions with which the conversation might be continued” (Büring 1999: 1). I will show that although both groups of FIs are anaphoric, the nature of their dependence on elements of discourse is different. As we will see in the next section, an existential FI indirectly answers the question established by a discourse topic. On the other hand, the presuppositional FIs are used in order to avoid repetition: they come with
free situation variables that receive their values from a situation already present in the discourse.

The dissertation captures the semantics of factual imperfectives in Polish and Russian within a situation semantics of the kind proposed in Kratzer (1989, 2014).

4.3 Viewpoint Aspect in Polish and Russian

In Polish and Russian, like in other Slavic languages, any given verb is either perfective or imperfective. In the majority of cases the non-derived verb stems are imperfective, and the perfective forms are derived by means of a prefix. In the cases where prefixes bring a semantic change that is additional to the aspectual change, the prefixed forms can be further imperfectivized through the addition of a suffix. Very often the term secondary imperfective is used to refer to the forms with such suffixes, and the name primary imperfective signals the lack of aspectual morphemes. (4) shows the derivation pattern and (5) contains examples of all its stages12:

(4) simple imperfective → prefixed perfective → secondary imperfective (prefixed perfective + imperfective suffix (SI))

12Not all Polish and Russian verbs fit in with the schema in (4); in the class of perfective verbs, for example, there are also morphologically simple forms, and forms derived from imperfective stems via the addition of a suffix. Moreover, Polish has also aspecual pairs in which perfective and imperfective forms come from different morphological stems. However, the schema in (5) represents a very productive morphological process which the majority of Polish and Russian verbs can undergo.
The perfective forms usually convey punctual, terminative or definite sense. They are not compatible with durative, continuous and indefinite interpretations due to the fact that the input to perfective AspP, a prefixed predicate, has already in its denotation a complete and non-homogenous event. I will assume that it is so because the verbal prefix, a type of a derivational morpheme, originates inside the VP and functions as eventuality modifier (cf. Zucchi 1999, Filip 2005, Borik 2006, a.o.)

Renée Fleming za-śpiewała „Glitter and Be Gay”.
‘Renée Fleming sang Glitter and Be Gay.’

The event in the perfective sentence in (6) is understood as complete and viewed as the entire event of Renée Fleming singing this particular aria, not as some subevent of her vocal performance.

The imperfective, on the other hand, can co-occur with both classes of eventualities: (i) durative, continuous and homogenous, and (ii) punctual, terminative and non-
homogenous. It gives raise to several distinct interpretations, including progressive, habitual, iterative and factual.

(7)  
a. Virginia *pisała* artykuł, gdy Nelly weszła z herbatą.

V.Nom.Fem write.1Sg.Ipf. article.Acc when Nelly entered with tea

‘Virginia was writing an article when Nelly came with tea.’  
*Progressive*

b. Ewa *grała* Balladynę w każdy piątek.

Eve.Nom play.Ipf.Past.3Sg.Fem B.Acc in each Friday.

‘Eve played Balladyna each Friday (used to play).’  
*Habitual*

c. Jan *kopał* piłkę przez 10 minut.

John.Nom kick.Ipf.Past.3Sg.Masc ball.Acc for 10 minutes

‘John kicked the ball for ten minutes.’  
*Iterative*

d. Jola *czytała* ‘Wojnę i pokój’.

Jola.Nom read.Ipf.Past.3Sg.Fem War and Peace.Acc

‘Jola has read *War and Peace*.’  
*Factual*

The denotations of the verbs in the first three sentences predicate over activities, a type of durative, continuous and homogenous eventualities. (7d), an example of the *factual imperfective*, stands out in this group of sentences in the sense that: (i) the event predicated over by the imperfective VP is viewed as non-homogenous, (ii) the sentence carries an implicature that the event is complete, i.e. that Jola has read the entire book.
Moreover, while in order to obtain the progressive, habitual and iterative readings, a temporal phrase is usually needed, the FI reading is the default option that surfaces if such a phrase is absent. In the next section I will specify which data should classify as FIs, therefore preparing the ground for the analysis to be presented in the situation semantics framework.

4.3.1 Characteristics of the factual imperfective

In the three examples below, the factual imperfective (8a) is juxtaposed with a progressive and a perfective construction. All three sentences have past tense morphology.

(8)     a. Renée Fleming śpiewała „Glitter and Be Gay”


        ‘RF has sung / sang *Glitter and Be Gay.*’

b. Kiedy weszłam na salę, Renée Fleming śpiewała


        „Glitter and Be Gay”.

        Glitter and Be Gay

        ‘When I entered the concert hall, RF was singing *Glitter and Be Gay.*’

c. Renée Fleming za-śpiewała „Glitter and Be Gay”.


        ‘Renée Fleming sang *Glitter and Be Gay.*’
The perfective and FI both make a claim about a complete and non-homogenous event of RF singing “Glitter and Be Gay”. The difference in truth conditions between them boils down to a difference in the parts of the world about which these statements are. The perfective refers to a specific situation (in the past) in which the event predicated over by the verb is contained. For example, (8c) may be a part of a narrative of somebody describing the 2004 gala in Madrid. The utterer wants to inform the hearer what Renée Fleming, the American opera star, sang during this particular concert. The factual imperfective may also be used in such a narrative but only if parts of the event are already in the discourse background. Consider (9a) and (9b) below: because a particular event of singing is already given (A’s utterances), B’s responses contain the verb in the imperfective form. Perfective in both examples will be grammatical but odd: B’s answers would be taken as repetitions of what was already said.

(9)  
a. A. Czytałem, że Natalie Dessay zaśpiewała w Madrycie „Glitter and Be Gay”.  
‘I read that Natalie Dessay sang Glitter and Be Gay in Madrid.’

B. Renée Fleming śpiewała „Glitter and Be Gay”.

b. A. Czytałem, że Fleming zaśpiewała w Madrycie „No Word from Tom”

‘I read that Renée Fleming sang No Word from Tom in Madrid.’

B. Śpiewała „Glitter and Be Gay”.

‘She sang Glitter and Be Gay.’
As it was stated in the introduction, the aspectual literature uses the term *presuppositional* in regards to this subclass of imperfective (cf. Grønn 2003, a.o.). Note that they differ in terms of the information structure: in (9a), the agent receives (contrastive) focus, whereas in (9b) it is the theme that is focused. I will not discuss the *presuppositional* FIs in much detail in this dissertation: there is a dependency between the presence of imperfective morphology and a specific topic/focus structure and I leave such dependency for further research.

The imperfective construction of the type in (8a) can also indicate relevance of the (past) event denoted by the verbal predicate to the situation which can be retrieved from the discourse topic. In order to illustrate this, I concocted the following scenario:

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As it was noted by Forsyth (1970) and Grønn (2003), a.o., in the case of the existential FI, it is the verb that receives focus, whereas with the presuppositional FI, the focused constituent is not the verb itself. Consider the pair in (i):

(i) a. Marcin malował już obraz.  
Pol

‘Marcin has already made a painting’

b. Ten obraz Sargent malował.  
Pol

‘This picture, Sargent made it.’

In (i), which represents the existential reading of the FI, we expect the existence of a relevant result situation with Marcin having the property of having made a painting – the verb *malowal* ‘make’ receives focus. On the other hand, in the example of the presuppositional reading ((ii)b), the verb remains unfocused, the direct object (*this picture*) is topicalized, and the agent (*Sargent*) – focused. We can imagine ((ii)b) being uttered by a museum guide who is showing a specific painting to a group of visitors; since the spectators see the painting in front of them, they do not have to be informed that the event of making this painting had occurred – such event is, using the terms from Grønn (2003), backgrounded/presupposed.

Within this study, topic is defined as a question, i.e. a set of propositions, or as a set of questions (a set of sets of propositions), cf. von Fintel (1994), Büring (1997), a.o.
I am a general manager of an opera house and I am planning a concert in honour of Leonard Bernstein. I am about to hire opera singers to perform a couple of arias from Bernstein’s operas. However, there is not much time left before the concert and I am afraid that many singers may not accept my invitation due to the short notice. A dialogue develops between me and my music director:

a. Me: Kogo powinnam zaprosić?
   ‘Whom should I invite?’

b. The music director: Renée Fleming śpiewała „Glitter and Be Gay”.
   ‘RF has sung Glitter and Be Gay.’

The imperfective construction of (8a) is repeated in (10b). Note that this sentence is not about any specific situation in which Renée Fleming sang the aria; the music director does not intend to inform me about a particular music event from the past. What he is able to convey is that because Renée Fleming has already sung “Glitter and Be Gay”, I should invite her to perform in the gala which I am organizing. The discourse topic for (10b) is established by the question “Whom should I invite?” and contains all the propositions that can be an answer to such question: {You should invite Christine Schäfer; You should invite Anne Sophie von Otter, You should invite Renée Fleming...}.

Since (10b) becomes a legitimate answer to the question in (10a), there must be a causal relation between the proposition in (10b) and what the participants of the discourse
know, such that it is possible for (10b) to imply that Renée Fleming is the best singer to be invited for my show. Let’s assume the music director and I share the following knowledge:

(11) {Opera singers need more time to prepare for a performance than my invitation would give them, They can turn down my offer due to the short preparation time, If someone has already performed an aria which I would like to have as a part of my gala, she/he may not mind the short notice, I would like to put in the program “Glitter and Be Gay”}.

The set of propositions in (11) had been already established in the conversation by the time (10b) was uttered. It represents the so-called Common Ground (cf. Stalnaker 2002). The proposition in (10b) enters the set in (11) and, as a result, a casual relation between the propositions in the Common Ground is established such that it is understood that since Renée Fleming has already sung “Glitter and Be Gay” she is a good choice for my last-minute show of Bernstein’s songs.

Such causal relation disappears if the sentence in (10b) is replaced with its perfective counterpart. Let’s have a look at (12), for which the scenario is the same as for (10). The perfective sentence in (12b) by no means serves as an answer to my question.

(12) a. Me: Kogo powinnam zaprosić?

‘Whom should I invite?’
b. The music director: # Renée Fleming *za-śpiewała* „Glitter and Be Gay”.

‘Renée Fleming sang *Glitter and Be Gay*.’

In (12), the director ignored my question and simply informed me that Fleming sang “Glitter and Be Gay”. Because he did not locate the event in time, I assume that the singing took place shortly before his answer was uttered. Contrary to the imperfective construction in (10b), (12b) does not stand in any logical relation to the discourse topic.

Before I analyse what that relation is in (10), I will compare the existential reading of the FI to the reading of the so-called English Resultative Perfect (cf. Portner 2003). As it has been already noted in the literature on several occasions (Borik 2006, a.o.), the two types of constructions have a very similar semantics. If the Polish imperfective sentence in (10) is replaced by an English Resultative Perfect construction as in (13), (the scenario stays the same, I am asking whom I should invite for my gala), the English sentence will imply that I should invite Renée Fleming, which is exactly how I understand my Polish FI in (10).

(13) Renée Fleming has sung *Glitter and Be Gay*.

In section 4.4, I review the analysis of the semantics of Resultative Perfect developed in Portner (2003). My own proposal for Polish and Russian EFI constructions is inspired by his approach. But first I summarize some accounts of Polish and Russian Factual Imperfectives.
4.3.2 Recent accounts

4.3.2.1 Śmiech (1971), Karolak (2010)

Śmiech (1971) reports that in Polish there exists a possibility of expressing a completed event with a verb in the imperfective form. “In the appropriate situation, the sentence Jadłem już [I ate.IMP already] means ‘I am after breakfast, dinner or supper’, whereas Zjadłem już [I ate.PF already] means usually that the speaker finished eating” (1971: 44).

Note that the imperfective sentence conveys the state of the utterer and requires more information from the discourse context (“the appropriate situation”). Śmiech explains: “This possibility of using an imperfective form in place of a perfective one occurs when the result of the action is known or when, from the situation, it can be inferred that the result of the action was achieved” (1971: 44).

Karolak (2010) describes two different readings of Polish factual imperfectives: general and specific. General meanings “relate to single or repeated events characterized by the fact that “certain qualities or knowledge are attributable to the agent due to previous experience” as a result of the event(s)” (Karolak 2010: 68; the inner quote is from Bybee et al. 1994: 62, as cited in Karolak 2010). Karolak (2010) also notes that usually context is

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15 Both quotes from Śmiech (1971) are translations from Polish by me.
necessary to determine the reading of general factuals. This type of factual imperfectives is exemplified in (14):

(14) **Naprawiałem** kiedyś mój komputer i wiem, jak to się robi.

    I **repaired.**IPF.1SG my computer and I know how to do this.

    (Karolak 2010: 68 (2))

(14) is an example of an Existential Factual Imperfective.

The specific factuality constructions denote events that happened once in the past and that “do not seem to have any effect on the life experience of the subject.” (Karolak 2010: 68)

(15) **Co jadłeś** na obiad?

    what you have.IPF.2SG for lunch

    ‘What did you have for lunch?’

They fall onto our category of presuppositional factual imperfectives.
4.3.2.2 Grønn (2003)

Grønn (2003) presented a uniform, truth-conditional semantics for the Russian Imperfective. He proposed that it encodes an overlap relation between the run time of an event over which the verb predicated and the Reference Time which is ‘the time we speak about’ and which is specified by the tense (Paslavskaya and von Stechow 2003: 313, in the spirit of Reichenbach 1947). Grønn’s (2003) proposal is shown in (16):

\[(16) \quad \text{OVERLAP (‘RUSSIAN IMPERFECTIVE’)} \rightarrow \lambda P \lambda t \exists e [e \bigcirc t \land P(e)]\]

In the case when Reference Time is too big to be contained in the event time, or if there is an event anaphora, the relation \(e \bigcirc t\) in (15) becomes \(e \subseteq t\) giving raise to factual imperfective readings. In all other cases, \(e \bigcirc t\) is “strengthen” to \(t \subseteq e\) resulting in the progressive (imperfective) reading.

One problem related to this proposal (as noted first by Altshuler 2012) is that (16) fails to represent the ‘pluperfect’ reading of the Russian imperfective represented here in (17).

\[(17) \quad \text{a. Nedelju nazad Marija po-celova-l-a} \quad \text{Dudkina.} \]

\[\text{Week ago} \quad \text{Maria PFV-kissed-PST.3S-FEM Dudkin}\]

‘A week ago, Maria kissed Dudkin.’
b. On daril ej cvety.

He give.IPF-PST.3S her flowers.

‘He had given her flowers.’ (Altshuler 2012; underscoring is mine)

As Altshuler (2012) points out when the proposition in (17b) is uttered after (17a), the understanding is nonetheless that the event denoted in (17b) preceded the event denoted in (17a).

Grønn’s (2003) account cannot be applied to Polish as his proposal does not deal with the difference in entailments between the factual imperfectives and perfectives. Grønn’s (2003) assumes that both FI and perfectives in Russian entail telicity. Polish FI only imply (and do not entail) the existence of a singular complete event. This puts them in opposition to perfective constructions.

(18) a. Renée Fleming śpiewała „Glitter and Be Gay”, ale nie skończyła całej arii.

‘Renée Fleming has sung Glitter and Be Gay but she did not finish the aria.’

b. Renée Fleming za-śpiewała „Glitter and Be Gay”, (*ale nie skończyła całej arii).

‘Renée Fleming sang Glitter and Be Gay, (*but she did not finish the aria).’

As (18a) indicates, the assertion that the entire aria was sung is merely an implicature, because it can be cancelled. Note the contrast between (18a) and the perfective (18b),
where such cancellation is impossible. Hence, the relation \( \lambda P \lambda t \exists e [e \subseteq t \land P(e)] \) cannot be applied both to perfective constructions and FI constructions.

### 4.3.2.3 Altshuler (2012)

Altshuler (2012) uses the Russian Factual Imperfectives (‘konstatacija fakta’) in a discourse context in which a sentence with imperfective aspect follows a sentence in perfective – as in (19):


Week ago Maria PFV-kissed-PST.3S-FEM Dudkin

‘A week ago, Maria kissed Dudkin.’

b. On daril ej cvety.

He give.IPF-PST.3S her flowers.

‘He had given her flowers.’

Note that the reading is quite surprising for an English speaker and also for a speaker of any Romance language: the event of flower-giving preceded the event of kissing, and, moreover, BECAUSE of that flower-giving, the kissing occurred.

Altshuler explains this reading as follows: the Russian imperfective in (19b) describes the consequent state of the event denoted by the verb in (19b), i.e. flower-giving. The
reference point of that consequent state is provided by the kissing event denoted by the verb in (19a) – this is justified by the following observation by Altshuler himself:

(20) While PFV requires e to lie within t and s, IPF requires e to lie within t and requires s to lie within the beginning of the consequent state of e. Moreover, while the PFV introduces a new state into the discourse context (which may serve as a topic state in a subsequent discourse), IPF does not.\(^\text{16}\) (Altshuler 2012: 71-72)

‘t’ is a time input that functions as location time (c.f. Kamp and Reyle 1993); ‘s’ is a state input that may function like Moens and Steedman’s (1988) consequent-state-as-a-reference-point (which Altshuler dubs topic state).

Hence, in (19), the consequent state of flower-giving lies within the beginning of the consequent-state of kissing, a state which serves as the topic state/reference point for this discourse. From that follows the reading obtained in (19): flower-giving preceded kissing.

The Imperfective, argues Altshuler, is a stativizer – it introduces a consequent state of a VP-event and this state is related to the Reference Point (provided by the PFV).

Instead of providing a systematic analysis that would explain the causal relation between events in (19), Altshuler (2012) refers to coherence relations that characterize the possible

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\(^{16}\) I found a similar observation in Boguslawski (1981): “PFs [perfective verbs – EF] (...) have only one, very general and purely structural, common semantic feature: they indicate SOME situation extending up to A CERTAIN MOMENT and some other, partially contrasting, situation which affects the same object and extends from that very moment on. This feature is absent from IMPFs [imperfective verbs – EF]” (1981: 38).
ways in which successive utterances could be connected to form a coherent discourse. Such ways have their source in world knowledge. My proposal, which will be presented in section 4.5 of this chapter, explains the causality in a systematic way by means of modality. Before presenting my account of Existential Factual Imperfectives, I summarize a proposal for the semantics of English Perfect which inspired my own analysis.

4.4 Portner’s (2003) proposal for the English Resultative Perfect

First of all, let me clarify a point: the semantic equivalence between Polish Factual Imperfective and English Perfect, illustrated in examples (10) and (13), is obtainable with only one out of numerous interpretations of the Perfect. What we are talking about here is an analogy between existential FIs and a reading of the Perfect, as exemplified in (21):

(21) Mary has read Middlemarch. (Portner 2003: 459 (2))

Intuitively, (21) can be paraphrased as follows: there is some current state caused by Mary’s having read Middlemarch (Portner 2003: 499). We do not know yet what the current state is because we were given (21) out of the blue, out of the discourse context. If we take (21) as a reply to “We need to get an explanation of George Eliot’s style. Who can we ask?”, then this current state is Mary’s understanding of Eliot’s style (cf. Portner 2003: 499-500). Whoever says (21) in such context means that Mary will be a good choice in our search for a person able to explain the style of Eliot. Such reading is obtainable,
because at the time (21) is uttered, the following set of propositions is established in the conversation:

\[
\text{(22) } \{\text{If someone who isn’t stupid reads an author’s book, they understand her style; Mary is smart; George Eliot wrote } \textit{Middlemarch}\} \quad \text{(Portner 2003: 500 (73))}
\]

(22) represents the knowledge shared by the participants in the discourse at the time (21) is uttered, the so-called Common Ground (cf. Stalnaker 2002). In Portner’s approach, this set restricts the domain of quantification of a modal operator that resembles the epistemic ‘must’. The proposition that Mary has read \textit{Middlemarch} is added to (22) – call it a subset of a Common Ground – and a causal relation is established between the members of this set. In view of all the propositions in (22), plus the causal relation between (22) and \textit{Mary has read “Middlemarch,”} (21) states that Mary must be able to explain Eliot’s style.

For Portner (2003), the modal operator in the English Resultative Perfect (and also in so-called Current Relevance Perfect) comes from a presupposition like this:

\[
\text{(23) } \text{A sentence } S \text{ of the form } \text{PERFECT}(\phi) \text{ presupposes: } \exists q[\text{ANS}(q) \text{ and } P(p,q)].
\]

\[
\text{Where ANS is true of any proposition which is a complete or partial answer to the discourse topic at the time } S \text{ is uttered.} \quad \text{(Portner 2003: 499 (71))}
\]
The operator P is similar to epistemic ‘must’ and p is the proposition uttered by φ. (23) reads that sentence S presupposes that in the set of worlds compatible with what the speaker and the hearer know in the world of evaluation, the proposition uttered by φ is a complete or partial answer to the discourse topic at the time S is uttered.

Note the similarities between such an interpretation of the English Perfect and the reading of Polish Factual Imperfectives as discussed in section 4.3.1 of this chapter:

(i) Both RP and existential FI constructions stand in logical relation to the discourse topic. In other words, they indirectly answer the question that the topic sets;

(ii) The propositions that RP and FI represent become a part of Common Ground and enter into a causal relation with the elements participating in the CG.

I repeat the scenario and the example of a Polish Existential Factual Imperfective construction from section 4.3.1. As we discussed, at the time the Polish (10b) is uttered, the Common Ground in (11) is formed:

(10) I am a general manager of an opera house and I am planning a concert in honour of Leonard Bernstein. I am about to hire opera singers to perform a couple of arias from Bernstein’s operas. However, there is not much time left before the concert and I am afraid that many singers may not accept my invitation due to the short notice. A dialogue develops between me and my music director:

a. Me: Kogo powinnam zaprosić?

‘Whom should I invite?’
b. The music director: Renée Fleming śpiewała „Glitter and Be Gay”.

‘RF has sung Glitter and Be Gay.’

(11) {Opera singers need more time to prepare for a performance than my invitation would give them, They can turn down my offer due to the short preparation time, If someone has already performed an aria which I would like to have as a part of my gala, she/he may not mind the short notice, I would like to put in the program “Glitter and Be Gay”}.

When (10b) is added to the set in (11), an implication about a certain result state arises:
Renée Fleming is the best singer to be invited for my show.

Both English RPs and Polish EFIs “highlight a result” of the event over which verbs in these construction predicate. What that result state is depends on the discourse topic and the knowledge and presuppositions shared by the discourse participants (i.e. Common Ground).

In the remaining parts of this subsection I will highlight the semantic differences between the two types of constructions. I will specify why instead of adopting Portner’s model presented in (23), I develop a different solution in order to account for the semantics of Polish and Russian existential FIs.
First, the notion of a result state is necessary for the interpretation of existential FIs, whereas Portner’s model in (23) does not set any restrictions on the kind of relations between the Perfect sentence and the material in the Common Ground. Portner has a good reason not to pose such restrictions though: a Perfect construction (rather than relying on causal relations in the CG) may rely on what Portner describes as ‘evidentiary’ relations, giving rise to the so-called current relevance interpretation. The utterer of (25), for example, gives us information about his current state: out of the blue or as an answer to How are you? this sentence will suggest that the speaker is still ill.

(25) I have been diagnosed with cancer. (Portner 2003: 502 (77a))

A Polish FI construction would not refer to a current state if there is no causal relation in the CG available to the discourse participants that could lead them to such state. The FI in (26) is deviant in the context provided.

(26) A: Jak się masz?
   ‘How are you?’

   B: # Chorowałam.

   Be.sick.Ipf.Past.1Sg.Fem
   ‘I was sick.’ / ‘I have been sick.’
Similarly, the Polish sentence in (28) would be an odd answer to the question in (27A) – we cannot infer that because of past accounts of the Earth being hit by asteroids, the planet is currently in danger of being struck again (which is the reading of English (27B) in this scenario).

(27)  
A: Is the Earth in danger of being struck by giant asteroids?
B: The Earth has been struck by giant asteroids before.  

(28) Wielki asteroid zderzał się z Ziemią wcześniej.
Big asteroid hit.lpf.Past.3Sg. Refl with Earth earlier.

‘A big asteroid has hit/hit the Earth before.’

The ineligibility of (28) as an answer to (27A) surfaces from the lack of a causal relation in the Common Ground: do the speakers believe that if Earth was struck by asteroids in the past, it is unlikely that it will be struck again, or on the contrary, they believe that it is very likely it will be hit again? It seems it can go both ways and we need more information in the Common Ground for a causal relation to be established either between the proposition in (28) and the state of Earth being in danger of being struck by asteroids, or the proposition and the state of Earth not being in danger of an encounter with asteroids...
For Portner (2003), the eligibility of (27B) as an answer for (27A) comes from the presupposition in (23). Because of the Perfect, it is presupposed that the proposition in (27B) is an answer to the question in (27A).

The idea of a Perfect equipped with a presupposition such as in (23) allows for a unified account of various readings of Perfect constructions. In our approach to the semantics of existential FIs we should aim at a more specific account.

Another characteristic of these constructions that differentiates them from the English Resultative Perfect is that it is possible for FIs to imply (and not to entail) the existence of a singular complete event. Let us repeat here our example (18):

(18) Renée Fleming śpiewała „Glitter and Be Gay”, ale nie skończyła całej arii.

‘Renée Fleming has sung Glitter and Be Gay (*but she did not finish the aria).’

As (18) indicates, the assertion that the entire aria was sung is merely an implicature, because it can be cancelled. Note the contrast between (18) and the perfective in (6), repeated here as (29), where such cancellation is impossible.

(29) Renée Fleming zaśpiewała „Glitter and Be Gay”, (*ale nie skończyła całej arii).

‘Renée Fleming sang Glitter and Be Gay, (*but she did not finish the aria).’
In (29), the completeness of the event (with respect to the length of the aria) is entailed. In the case of English RPs, the completeness of the event denoted by the verb is also entailed, hence Perfect parallels Polish Perfective in this respect: Renée Fleming has sung “Glitter and Be Gay”, (*but she did not finish the aria).

Finally, adopting Portner’s proposal and attributing the reading of existential FIs to the presence of a presupposition would separate the FIs from other Polish Imperfective constructions (i.e. Progressive, Habitual, Iterative, Generic). I would rather assume that the usage of Imperfective morphology is not coincidental in all of these readings and direct my analysis to check this assumption.

4.5 Factual Imperfectives in the Situation Semantics Framework

4.5.1 Situations (Kratzer 1989, 2014)

In the framework chosen in this dissertation, utterances are evaluated with respect to partial worlds. Consider the following scenario and the Polish sentence in (30) – the complete actual world might be too coarse-grained if used to evaluate A’s utterance.

Scenario: A and B talk about their friend Piotr. B entered the conversation knowing that Piotr has a girlfriend whose name is Marta and that she is his second girlfriend. With his first, named Ala, Piotr broke up some time ago. But now A informs B:
What B most likely understands from such statement is that the word *girlfriend* refers to *Marta* and A talks about the event of Piotr breaking up with Marta rather than Ala. If, in fact, Marta and Piotr are still together and B has good evidence for it, he will, we can imagine, object to A’s statement. Note that A’s utterance, although false when referring to the actual situation with Piotr and Marta, is true with respect to another part of the actual world – the situation in which Piotr broke up with Ala.

A particular situation about which an utterance is, will be referred here as this utterance’s *topic situation*17 (cf. Kratzer 2014). Topic situations covertly restrict domains for nominal and verbal quantification. In (31), for example, the particular situation talked about by A provides a semantic value for the definite description *dziewczyna ‘girlfriend’* and determines which event of Piotr’s breaking up with his girlfriend the VP denotes. To account for this type of restrictions, I follow Percus (2000) and Kratzer (2014), a.o., and assume that verbs and NPs introduce their own situation arguments and that such arguments are articulated via syntactically represented variables. (31) gives us the syntax and semantics of (30) in this framework, in the spirit of Kratzer (2005, 2014).

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17The idea that every utterance is about a particular situation goes back to John L. Austin (1950); other terms used in the literature are: *focus situation, described situation, reference situation*.
The topic situation $S_0$ binds situation variables $(s_1)$ which are arguments of lexical predicates. Such variables are exactly like pronouns, with the only difference that they are unpronounced. The $\lambda$-abstractor gives us the function that characterizes the situation we

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18Following Filip (2005), I assume that in Slavic languages there is a connection between perfectivity/imperfectivity and the semantics of nominal arguments. In (29) where the verb is perfective, the operator in the specifier of the NP functions as the definite D-quantifier (in the sense of Partee, Bach, and Kratzer 1987).
are quantifying over. This function, given the situation $S_0$, yields the truth value 1 as long as, in $S_0$, Piotr, who is located in $S_0$, broke up with whoever the girlfriend in $S_0$ is.

This type of account is in the spirit of Creswell 1990 who argued that natural languages have the expressive power of object-language quantification over worlds and times.\textsuperscript{19}

### 4.5.2 Factual Imperfectives in Situation Semantics

I start with the same scenario that I used in the previous section but A’s utterance is now factual imperfective: A and B talk about their friend Piotr. B entered the conversation knowing that Piotr has a girlfriend whose name is Marta and that she is his second girlfriend. With his first, named Ala, Piotr broke up some time ago. A informs B:

(32) Piotr rzuc\'ał dziewczynę.

Piotr.Nom broke.up.2lf.Past.3Sg.Masc girlfriend.Acc

‘Piotr has broken up with a girlfriend.’

The topic situation of (32) is not any past situation (not even the close-to-the-utterance time situation as it would be implied with the Perfective aspect) but it is the situation of the discourse between A and B. In this “now” of A and B, Piotr has a certain property due to the fact that there was a past event of him breaking up with his girlfriend. Since we do

\textsuperscript{19}For more discussion on overt situation variables, see also Percus (2000) and Kratzer (1989, 2014).
not have enough information about the utterance situation for (32), that is, we cannot
deduce how the event of Piotr’s breaking up with his girlfriend affects such a situation, the
sentence sounds odd.

Before proceeding with our analysis, let us create a scenario for (32) that will make this
utterance justifiable: B’s friend, Tomek, has recently broken up with his girlfriend. B
worries about him - Tomek seems to be depressed. Who is the best person to give Tomek
support and advice in this situation? – wonders B. Then A replies with (32). With such
scenario, we can understand how the event denoted by the VP in (32) is related to the
utterance situation. Such a situation is reflected by the Common Ground: a set of
propositions such that each of these propositions expresses what A and B know at the
time (32) is uttered. Given my scenario, I can reconstruct the Common Ground in the
following way:

(33) {Tomek is depressed because he has recently broken up with his girlfriend,
Tomek needs advice, If somebody has the experience of going through a break-up,
he/she is the best person to give advice, …}

The discussion topic (Question under Discussion, QUD): “Who is the best person to give
Tomek advice?” has in its denotation a set of propositions that answer this question:
{Maciej is the best person to give advice to Tomek, Alina is the best person to give advice
to Tomek, Piotr is the best person to give advice to Tomek, …}. 
When the TP in (32) becomes a part of the Common Ground in (33), it indirectly answers the QUD; what B actually states by uttering (32) is that, in view of what is known by A and B at the time of the discourse, Piotr is the best person to give advice to Tomek. The perfective counterpart of (32) – the sentence in (30) – cannot deliver such an indirect answer and would be viewed as deviant if offered as a reply to B’s question. My aim is to capture the reason why the perfective is infelicitous in such a configuration and to find out what property of the imperfective is responsible for the reading in (32).

Recall that in Portner’s (2003) proposal for the Resultative Perfect, if a sentence in Perfect indirectly answers the QUD, this is due to a presupposed epistemic modal operator: there is a relation between the QUD and the proposition uttered by the Perfect sentence such that in view of what the participants of the discourse know, the proposition must be an answer to QUD (see (23) above). Inspired by Portner’s analysis, I propose an epistemic modal operator (MOD) in FI constructions. In my account of existential FIs, such an operator, rather than being part of a presupposition of the type discussed in Portner (2003), is an intrinsic element of the FI structure. This epistemic operator takes two arguments: a restrictor (a set of propositions that are compatible with what is known at the time of the utterance) and a nuclear scope (a salient TP that answers the question established by the discourse topic). The proposition denoted by the (overt) TP with the Imperfective AsP in its scope is part of the restrictor; that is, it belongs to the epistemic modal base. We can now formally account for the fact that the proposition denoted by EFI enters the Common Ground and highlights a result state which answers the QUD. In (34)
that gives us the structure of the EFI in (32), the Common Ground, as discussed so far, will be the first argument of MOD.

Note that this argument comes from predicate modification: to the set of propositions from the epistemic accessibility relation, another proposition (here: “Piotr has broken with a girlfriend”) was added. The TP2 in the nuclear scope represents the salient proposition “Piotr is the best candidate to help Tomek.”

CON in (34) stands for CONTENT – a set of propositions that the speaker believes are true in the actual world (Hacquard 2006). CON has in its restriction an event variable (e₀). I follow Hacquard (2006, 2010) in assuming that modals are relative to an event, rather
than a world, of evaluation. The event relativity of modals as proposed by Hacquard allows us to explain the correlation between the type of modal interpretation (epistemic or root) and a modal’s syntactic behaviour (epistemics scope higher than roots; see Hacquard 2006 for discussion). An event of evaluation provides a time (the event’s running time) and individual(s) – the participant(s) of the event. There are three possible event binders: a speech event, an attitude verb (e.g. hope, believe) and aspect. I propose that the modal in (34) is restricted by an epistemic modal base that is relativized to the speaker and the speech time (the agent and temporal trace of the speech event). Note that the possibility expressed by the modal in (34) – that Piotr is the best person to help Tomek – is relativized to the evidence of the speaker and hearer at the time of the utterance. This is captured in (34) where the variable e₀ from the modal base is co-indexed with a speech event represented syntactically (cf. Hacquard 2010). The CON(e₀) relation picks out a set of propositions that provide the doxastic alternatives of the agent of e₀ at the time of e₀. In EFIs, this accessibility relation is further modified by a proposition denoted by a TP with imperfective AspP in its scope (TP1 in (34)). Hence, to the set of beliefs, the proposition Piotr broke up with a girlfriend is added. CON(e₀) with such proposition is, in other words, our Common Ground, as discussed earlier. In the nuclear scope of the Modal in (35), I locate the proposition that answers the question from the discourse topic. The proposition is salient since it is easily retrievable by the hearer because of the information in the Common Ground. I encapsulate the result of applying the denotation of modal Mod to its two arguments in the following proposal:
\[\text{[[Mod]]}_{\text{w,e}} = \lambda P_{\text{std}}, \lambda Q_{\text{std}}, \forall w'. P(w') = 1 \cdot Q(w') = 1\]

where \(P\) is the modal’s restrictor and \(Q\) the modal’s nuclear scope.

The denotation of \textit{Mod} in (35) reads as follows: in all the worlds \(w'\) that are compatible with the CONTENT of the speech event, the proposition \(Q\) is true. Applied to our scenario, if Piotr broke up with a girlfriend in all of the speaker’s doxastic alternatives, then in all the worlds compatible with what the speaker knows, Piotr is the best person to give Tomek advice.

A correct prediction of my analysis of FIs is that a perfective TP cannot replace the imperfective TP1 in (34) without creating uninterpretability. CON(e) is defined when \(e\) has a propositional content (for example when \(e\) is an event like \textit{believe}; cf. Hacquard 2010); hence, it must be modified by a proposition (type <s,t>). Any perfective construction is of the type <t> since its proposition is always bound by a \textit{topic situation}.

As it was discussed in section 4.5.1, an utterance with a perfective aspect is about a particular actual situation. If such a situation is not explicit, as in (30), it is assumed that the event (Piotr breaking up with his girlfriend) is contained in the situation immediately preceding the utterance time. Such an assumption does not surface if the sentence is imperfective. Note that (36a) is infelicitous on its own – in order to make it interpretable one must either: (i) provide a situation that will be contained in the situation over which the imperfective verb predicates, or (ii) know the discourse topic that will allow to
determine the set of beliefs of the discourse participants (the content of the speech event) to which the proposition in (36a) can be added. The (i) case represents the progressive in (36b); here the topic situation is introduced by the temporal phrase *kiedy go poznalam* ‘when I met him’ and is a situation of me meeting Piotr for the first time. The second case is the familiar case of existential Factual Imperfectives, as in (36c).

(36)  

a. # Piotr rzucił dziewczynę.

‘Piotr broke up with a girlfriend.’

b. Kiedy go poznalam, Piotr rzucił dziewczynę.

‘When I met him, Piotr was breaking up with a girlfriend.’

c. A. Tomek jest załamany, bo właśnie rzucił dziewczynę. Kogo wyślemy, by mu teraz coś doradził?

‘Tomek is depressed since he has just broken up with his girlfriend. Whom will we send with advice in this situation?’

B. Piotr rzucił dziewczynę.

‘Piotr has broken up with a girlfriend.’

I propose that the imperfective aspect in FIs is a semantically vacuous morpheme selected as the right type for an argument of the epistemic modal operator. My account is consistent with the view advocated by Hacquard (2006) and Anand and Hacquard (2010): distinct meanings of the imperfective are introduced by distinct, phonologically null operators. The imperfective in FIs does not describe situations in terms of the temporal
relations of *contain* and *being contained*; neither does it reflect the presence of a generic or habitual operator: \[|\text{lpf}| = \lambda \text{P}. \lambda \text{s}. \exists \text{s}_1 [\text{P}(\text{s}_1) \text{ and } \text{s}_1 = \text{s}].\]

Let me return briefly to the presuppositional factual imperfectives to which my analysis does not apply. I will argue that the two types of factual imperfectives: existential and presuppositional, should not be classified under one label as they differ in function and in semantics. The existential imperfectives are temporally indefinite, whereas the presuppositional imperfectives are not. (The difference has been already pointed out in Grønn 2003.) The latter resemble perfectives as they are about particular actual situation and differ from existential factuals that refer to unspecified (past) situations. Both types are anaphoric. (Anaphoricity is the signature characteristic of imperfectives across languages according to Giorgi and Pianesi 2004.) In order to be interpretable, the existential imperfective needs a discourse topic and a causal relation between the set of propositions in the Common Ground to which the propositions it represents is added. No such causal relation occurs with presuppositional imperfectives. A presuppositional imperfective construction receives its topic situation from the discourse topic.

I am aware that an approach arguing for a modal construction with a silent nuclear scope is a novelty. In the Kratzerian model of modality what is contextually silent is the modal base, whereas in (34) our existential factual imperfective construction *is* the modal base. I will argue that this approach although controversial is worth pursuing.
My first argument is that the modal analysis of EFIs accounts for the causal relations in the speakers’ Common Ground, relations for which neither Grønn’s (2003) nor Artshuler’s (2012) proposals find a systematic explanation. Note that the following observations and conclusions by Altshuler (2012) are in line with ours: (20) is a DRT-way of describing Perfective as being always about a particular actual situation, and characterizing the Imperfective as requiring a situation from the discourse in order to be interpretable. The advantage of our analysis over Altshuler’s is that it provides an account for the causal relation between propositions like the ones in (19), repeated here as (37).

(37)  a. Nedelju nazad Marija po-celova-l-a Dudkina.  
Week ago Maria PFV-kissed-PST.3S-FEM Dudkin
‘A week ago, Maria kissed Dudkin.’

b. On daril ej cvety.  
He give.IPF-PST.3S her flowers.
‘He had given her flowers.’

To explain the fact that the flower-giving event in (37) caused the kissing event, Altshuler (2012) points out the so-called coherence relations – which are closely linked to world knowledge and which characterize the possible ways in which successive utterances could be connected to form a coherent discourse. In our own account the causality is further elaborated.
On the other hand, our proposal explains the similar semantics between the Polish and Russian EFIs and the English Resultative Perfect (known to Slavicists; c.f. Borik 2006). We showed that the modality Portner (2003) ascribed to Resultative Perfect might be responsible for the readings of EFIs but it must be an intrinsic element of the construction rather than having its source in a presupposition.

Finally, there exists a proposal for another Polish construction – so-called Involuntary State Construction, c.f Rivero et al. (2010) – in which the authors argue for a lexically specified modal base. Paraphrasing Rivero et al. (2010), I dare to say that in examining Polish ISCs and EFIs “we see a new way in which languages may (re)combine the basic building blocks of modal meanings mediated by syntax and morphology” (Rivero et al. 2010: 712)

4.6 Conclusions

In this Chapter, I analysed Polish and Russian existential factual constructions in which the imperfective is a default – a semantically vacuous morpheme whose presence is guaranteed by specific conditions that rule out the perfective. In both languages, in addition to the reading under discussion, the imperfective verb forms can express also: progressive, habitual, iterative, and presuppositional factual readings. Within an ongoing

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20 For a recent paper on imperfectivity, see: Arregui, Rivero and Salanova (2014), “Cross-linguistic variation in imperfectivity,” Natural Language and Linguistic Theory 32: 307-362. This article appeared too late for me to consider its implications for the dissertation, but I will come back to it in my future research.
discussion concerned with the puzzle of how to account for distinct readings of the imperfective (cf. Cipria and Roberts 2000, Hacquard 2006), my analysis supports the view advocated by Hacquard (2006) and Anand and Hacquard (2010) that various meanings of the imperfective are introduced by distinct operators. The way in which the progressive and habitual imperfectives are associated with modality differs from the relation between the epistemic modal and imperfective aspect in existential FIs. In the case of the latter constructions, the imperfective is selected by a modal merged above TP. This makes existential FIs unique among other types of imperfectives.
5. Conclusions

This dissertation examined the interplay of Situation (Inner) Aspect and Viewpoint (Outer) Aspect in two classes of constructions in Polish: (i) anticausatives with and without Dative subjects, ex. ‘(Jankowi) złamały się okulary’ John broke the glasses involuntarily / The glasses broke, and (ii) Factual Imperfectives, ex. ‘Jadłam obiad’ I have eaten my dinner.

Polish anticausatives were divided into two classes: those with perfectivizing prefixes on the verbs and those without. The anticausatives that belong to the former group display a more complex syntactic structure than the so-called primary imperfective anticausatives: the prefix is a secondary predicate building a resultative phrase in the sense of Ramchand (2006). Since the argument of Voice in prefixed anticausatives is a small clause, as shown in (1), the Voice is causative, that is, in its transitive variant it allows Causer external arguments to be licensed. (Folli and Harley 2005 described the correlation between small clause arguments and Causer licensing for Italian constructions with the reflexive si. My analysis is inspired by theirs.) Since the prefix in (1) provides a secondary predicate requiring a resultative phrase as complement, it is a telicity marker and a stativizer.
We showed that transitive verbs with no prefixes (so-called primary imperfectives) do not tolerate Causers:

```
*Silny
  wiatr
  budził
  Tomka.
```

*‘The strong wind was waking up Tom.’

According to Folli and Harley (2005), little verbs that disallow causers as their external arguments are of different types than the one represented in (1) above: they allow both nominal and small clause complements whereas the causative verbs come with small clause complements only. Based on that, I argued for the following structure of the anticausative counterparts of primary imperfectives:
I argued that a necessary element of primary imperfectives (both causative and anticausative) is an implicit Viewpoint Aspect operator. We saw two instances of such operators: ONGOING and GENERIC. I assumed, following Kratzer (2004), that the assignment of accusative case is linked to telicity. More specifically, [telic] is an interpretable feature paired with uninterpretable accusative feature on the direct object. I assumed [telic] is present on the verb in (4) and licenses accusative case on the direct object.

(4)  Tosca budziła Cavaradossiego.

‘Tosca was waking up Cavaradossi.’
The construction hence differs from the one in (5) where: (a) no condition for culmination is possible, and (b) the direct object appears in the instrumental case:

(5) \text{Tosca trzęsła Cavaradossim.}
   \hspace{1cm} \text{Tosca.Nom shake.Ipf.Past Cavaradossi.Instr.}
   \hspace{1cm} ‘Tosca shook Cavaradossi.’

In primary imperfective constructions as in (4), a non-overt imperfective operator located in Viewpoint Aspect operates over [telic] and nullifies the culmination requirement – the ongoing interpretation and atelicity are the results.

The Generic operator differs from the ONGOING operator in that it tolerates Causer as its external argument, as shown in (6).

(6) \text{Silny wiatr zawsze budził Tomka.}
   \hspace{1cm} \text{Strong wind.Nom.Masc always Imp.woke.Masc Tom.Acc}
   \hspace{1cm} ‘The strong wind always woke up Tom.’

It does not nullify [telicity] and has a causative Voice Phrase as its complement.

I argued that the reflexive clitic się in Polish plays a different syntactic and semantic role, depending on the type of anticausative construction, i.e. whether it is a primary
imperfective construction or a causative one with the prefix realizing little v (Voice). In the former class, się is a resumptive pronoun residing in the specifier of Voice Phrase. It carries the Causer theta-role from the causative Voice. On the other hand, się in primary anticausative constructions is an expletive – it does not carry a thematic role and it resides in the head of Voice.

The projection of się is compulsory in the structure of Polish anticausatives – a situation not found in languages like German, Italian and Spanish which, alongside morphologically marked anticausatives, display inchoatives without special morphology. The Polish reflexive functions as a resumptive pronoun for the dative in Dative Anticausative Constructions; as Frąckowiak and Rivero (2011) claim, the causer role of the pronoun interacts with the [-intention] feature of the dative which is merged in the head of the High Applicative Phrase (c.f. Cuervo 2003, Rivero 2004). As a result of such an interaction, the dative is interpreted as an Unintentional Causer of the change-of-state event. In Polish primary imperfectives (i.e. anticausatives with atelic syntax), się occupies the Voice head position, hence it does not bear any theta-role and cannot build up the Unintentional Causer interpretation with the dative head. Although in primary imperfectives the syntactic position of the Polish reflexive clitic is exactly the same as the one of reflexives in Italian and Spanish anticausatives, its status is different: Italian si and Spanish se function as markers of telicity – their presence in the anticausative structure signals the causative type of Voice and the option of interpreting dative applicatives as Unintentional Causers. This function of marking telicity is reserved in Polish for perfectivizing prefixes, but these
prefixes are not present in the syntax of Polish atelic anticausatives/primary imperfectives.

My analysis of DACs in Chapter 3 led me to the following conclusion regarding the syntactic status of imperfective aspect. I showed that the different readings of the imperfective originate from the different imperfective operators situated in Viewpoint Aspect and that these operators depend on the different structures of Voice Phrase. This conclusion was tested in Chapter 4 of my thesis which was devoted to Existential Factual Imperfective Constructions (EFIs).

One of the issues examined in Chapter 4 was the anaphoric nature of the imperfective aspect. I argued that the perfective and imperfective differ in their semantic types. Perfective is of type $t$ – it refers to a topic situation, whereas the imperfective is dependable on a situation from the context (or from a temporal phrase). I showed that, because of that type difference, only the imperfective can lead to interpretations known in the aspectual literature as existential factual imperfectives.

(7) Renée Fleming śpiewała „Glitter and Be Gay”.

‘Renée Fleming has sung Glitter and Be Gay.’

I proposed a semantic analysis of constructions such as the one illustrated in (7), arguing that a proposition denoted by EFIs is part of an epistemic modal base and, due to causal
relations in the modal base, it yields a specific interpretation parallel to that of the English Resultative Perfect.

The outcome of my analysis supports the view that different readings of the imperfective come from different operators situated in Viewpoint Aspect. I argued that one of the imperfective operators alongside GENERIC and ONGOING is the semantically vacuous FACTUAL operator which is selected as the right type for an argument of the epistemic modal in EFIs.

Finally, my analysis led me to the conclusion that the Imperfective in Polish (both primary and secondary) depends on not only a specific Viewpoint operator but also on a specific type of Voice Phrase (causative or agentive).
6. Bibliography


