

External Argument “Reduction” within a Configurational Theta Theory

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1. Introduction: marked and unmarked anticausatives

- Many languages have two morphologically different classes of anticausative verbs
- One class is morphologically unmarked, the other is morphologically marked
- Crosslinguistically, there are two main types of morphological marking:
 - **reflexive** morphology (REFL, many Germanic, Romance or Slavic languages)
 - **non-active** morphology (NACT, e.g. Albanian, Greek)

- (1) a. Hans zerbrach die Vase (German)
John broke the vase
a'. Die Vase zerbrach (*sich) (unmarked)
the vase broke (REFL)
- b. Der Wind öffnete die Tür
the wind open the door
b'. Die Tür öffnete *(sich) (marked/REFL)
the door opened (REFL)
- (2) a. Gianni ha diminuito la temperatura (Italian)
John has decreased the temperature
a'. La temperatura (*si) è diminuita (unmarked)
The temperature (REFL) is decreased
- b. Gianni ha chiuso la finestra
John has closed the window
b'. La finestra *(si) è chiusa (marked/REFL)
The window (REFL) is closed
- (3) a. O Janis adiase ti sakula (Greek)
the John-nom emptied-Act the bag-acc
a'. I sakula adiase (unmarked)
the bag-nom emptied-Act
- b. O Janis ekapse ti supa
the John-nom burnt-Act the soup-acc
b'. I supa kegete (marked/NACT)
the soup-nom burns-Nact

Questions that should be answered:

- Q1: Why are there so often **two** morphological classes of anticausatives?
- Q2: Do the two types of anticausatives differ semantically?
- Q3: (How) do the two types of anticausatives differ syntactically?
- Q4: What is the **phrase structural position** of the extra morphology?
- Q5: Why do we find the type of morphology that we actually do?
This talk: Why do we find **reflexive morphology** as the most frequent marker on anticausatives?

1.1 Lexicalist accounts of the causative alternation

- Verbs undergoing the causative alternation are basically dyadic.
- Anticausatives are derived from causative entries by a lexical detransitivizing operation which affects the external argument.
 - *Lexical Binding* (Levin & Rappaport Hovav 1995)
 - *Expletivization* (external argument reduction, Reinhart 2000, 2002)
- Special Morphology appears as a sign that a detransitivizing operation has taken place.

Criticism:

- Neither '*Lexical Binding*' nor '*Expletivization*' has ever been formally defined. It is not clear how any operation could eliminate an argument from the theta grid (cf. also Koontz-Garboden 2007).
- As these accounts assume that all anticausatives are derived the same way, they have nothing to say (and do not say anything) about the morphological variation found crosslinguistically (→ no answer to Q1).
- The accounts make no comment about the level of grammar where the anticausative morphology originates; they say nothing about the phrase structural position of the morphology. (→ no answer to Q3/Q4).
- The accounts have no answer as to why a reduction operation should be marked by non-active morphology or reflexive morphology instead of any other device.¹ (→ no answer to Q5).

¹ Reinhart bears on the argumentation by Chierchia (1989/2004) for the source of the reflexive morphology. However, her 'expletivization' operation is totally different from what Chierchia argues for. Chierchia is the only one I know of that provides an account for why we find reflexive morphology with anticausatives; the external argument binds the internal argument. However, his account is semantically not correct. His main argument, the

- The assumption that causatives and anticausatives are in a direct derivational relationship is problematic in a number of respects (cf. Piñón 2001, Doron 2003, Alexiadou et al. 2006a, b).

Outlook:

- I will investigate the source of the reflexive morphology within a theory of the causative alternation that does not assume a direct derivational relationship between causatives and anticausatives.
- Instead, I assume a framework of syntactic event decomposition where both versions of the causative alternation are derived from a common Root.
- The main language of investigation is German. In section 5. I will discuss other languages marking anticausatives with reflexive morphology.
- Answer to Q1: See Haspelmath (1993) for the conceptual reason behind this partition.
I propose that the two morphological classes reflect a (to some extent) transitive and an unaccusative syntax, i.e. they reflect the causative alternation itself (cf. Hale & Keyser (2002)).
- Answer to Q2: The two types of anticausatives do not differ semantically; both are semantically inchoative and lack any (implicit) external theta role.²
- Answer to Q3: Marked anticausatives are syntactically transitive (in the case of reflexive morphology) or passive (in the case of non-active morphology).
- Answer to Q4: Anticausative morphology is connected to the presence of Voice (cf. Embick 1998/2004, Doron 2003, Alexiadou & Anagnostopoulou 2004).

Problem:

The answer to Q2 and the answer to Q4 seem to contradict each other. It is claimed that there should be Voice but no external theta role.

It is the goal of this talk to resolve this contradiction. Specifically, I propose a way how Voice can be deactivated.

- Answer to Q5: The answer should follow within a theory about reflexive pronouns, i.e., it should be derived within the general assumptions about Binding Theory.

interpretation of the Italian phrase ‘*da sé*’ (by itself) is not well grounded; see Schäfer (2007b) for further argumentation.

² It has been claimed for a number of languages that there exist semantic differences between marked and unmarked anticausatives (cf. Folli (2002) for Italian, Labelle (1992) for French, Alexiadou & Anagnostopoulou (2004) for Greek, Cornips & Hulk (1996) for Heerlen Dutch. A number of comments are in order as to why I think that these semantic differences, although interesting, are not relevant for my main point: (i) The differences these authors identify are of an aspectual nature. In none of the languages is there any clue that the two classes of anticausatives differ with respect to the presence or absence of an (implicit) external argument. (ii) The alleged differences are not accepted by all speakers of French. (iii) The alleged differences are at best a tendency but no rule in Italian and French. (iv) None of the differences mentioned holds for German. See Schäfer (in prep.) for further discussion of these points.

2. The core theory of the causative alternation

- Alexiadou et al. (2006a, b) develop a theory of the causative alternation assuming a framework of syntactic event decomposition and a configurational theta theory. Such a theory accounts for the alternation between causatives and unmarked anticausatives as follows:

- Crosslinguistically, verbs expressing a change of state undergo the causative alternation:

(4) a. John broke the window b. The window broke

- The structure of causatives and anticausatives is given below. Strictly speaking, none of the variants is derived directly from the other (cf. also Piñón 2001 and Doron 2003).

(5) The core structure of the causative alternation:

a. [Voice [vCAUS(e) [Root + Theme]]] (causative, passive)

b. [vCAUS(e) [Root + Theme]] (anticausative)

- Agentivity and causation are syntactically represented in terms of distinct functional heads. CAUS is taken to introduce a causal relation between a causing event (the implicit argument of CAUS) and the resultant state denoted by the Root + Theme complex.
- Causatives and Anticausatives have a CAUS head but they differ in that only the former have Voice. The causative alternation therefore is a Voice alternation (presence vs. absence of Voice).
- **Importantly, Voice does not introduce an event** but only introduces the external argument of an event. (This is the original conception of Voice in Kratzer 1996.)
- Roots fall into different classes depending on their Encyclopaedic semantics (cf. also Bhatt & Embick in progress, Harley & Noyer 2000):

1. $\sqrt{\text{agentive}}$ (murder, assassinate) → necessarily transitive / + Voice.

2. $\sqrt{\text{externally caused}}$ (destroy, kill) → necessarily transitive / + Voice

3. $\sqrt{\text{cause unspecified}}$ (break, open) → alternate / \pm Voice

4. $\sqrt{\text{internally caused}}$ (blossom, wilt) → necessarily intransitive / – Voice

- The syntax combining with these roots is completely unrestricted.
- But derivations that contradict our world knowledge (\approx encyclopaedic knowledge about the Root / the verb+theme complex) are filtered out as unintelligible at the CI-Interface.

(6) a. John killed/murdered the president b. #The president killed/murdered

(7) a. John broke the window b. The window broke

(8) a. #John blossomed the flower b. The flower blossomed

3.1 Semantic Intransitivity

- The two types of anticausatives do not differ thematically: Both license ‘*von selbst*’ (by itself) (in contrast to passives) as well as the addition of a causer via a PP.

(11) a. Die Vase zerbrach von selbst b. *Die Vase wurde von selbst zerbrochen
The vase broke by SELF *The vase was by SELF broken*

(12) a. Die Tür öffnete sich von selbst b. *Die Tür wurde von selbst geöffnet
The door opened REFL by SELF *The door was by SELF opened*

(13) Die Tür öffnete sich durch einem Windstoß
The door opened REFL through a gust-of-wind

(14) Die Vase zerbrach durch ein Erdbeben
The vase broke through an earthquake

→ I conclude that both types of anticausatives are semantically intransitive/unaccusative. (in accordance with e.g. Bierwisch 1996, Haider & Bierwisch 1989, Steinbach 2002, Wunderlich 1997). None of them shows any semantic reflex of an external theta role.³

3.2 Syntactic Transitivity

- Reflexive anticausatives in German are syntactically transitive, as has been extensively discussed in Fagan (1992) and Steinbach (2002) (cf. also Haider (1985), Haider & Bierwisch 1989, Abraham 1995, von Stechow 1995, Bierwisch 1996, Wunderlich 1997, Haider 2000).

- Auxiliary selection: marked anticausatives select ‘*have*’ (cf. (10b)) while unmarked anticausatives select ‘*be*’ (cf. (9b)).

- free word order: The reflexive pronoun is as flexible as ordinary noun phrases. It does not behave as a clitic.

(15) dass (langsam) (sich) (langsam) die Rolle der Mutter (langsam) (sich) (langsam)
that (slowly) (REFL) (slowly) the role of-the mother (slowly) (REFL) (slowly)
geändert hat
changed has

- Case: The context of first/second person themes reveals that the theme in reflexive anticausatives, as well as in reflexive middles is assigned accusative. (The example in (16b) is from Reis 1982.)

(16) a. Du hast **dich** verändert
You.NOM have you.ACC changed
b. Du verkaufst **dich** gut; ich meine, dein Buch verkauft **sich** gut
You.NOM sell you.ACC well; I mean your book.NOM sells REFL.ACC well

³ This holds across languages for both marked and unmarked anticausatives (cf. e.g. Alexiadou et al. 2006a, b).

3.3 Reflexive Anticausatives: Resolving the Contradiction

- (German) reflexive anticausatives are syntactically transitive but semantically intransitive.
- There are two case-marked DPs but only one theta role (*theme*) is involved.
- The reflexive pronoun is a syntactic but not a semantic argument of the anticausative verb (cf. also Haider & Bierwisch 1989, von Stechow 1995, Bierwisch 1996, Wunderlich 1997).

Question: Where should we merge the two syntactic arguments?

Case theory: The theme is marked nominative and the reflexive accusative.

Binding Principle A: An Anaphor needs an antecedent.

→ This suggests that the theme is merged externally and the reflexive pronoun internally.

Configurational theta theory: Themes are always merged internally.

→ This leaves the external argument position for the reflexive pronoun.

← But ‘*sich*’ has no theta role. How could it be merged in an argument position?

Question: Can we test empirically whether the reflexive pronoun is higher than the Theme?

- **The interpretation of bare plurals and indefinites** suggests that the theme originates lower than the reflexive pronoun. Scrambling of the theme to the front moves it out of the domain of existential closure (cf. Schäfer (in prep.) for further discussion).⁴

(17) a. weil **sich Türen** öffnen und schließen sollten (*generic, existential*)
because **REFL doors** open and close should

b. weil **Türen sich** öffnen und schließen sollten (*generic, *existential*)

(18) a. weil nichts *(von dem) sich verändern wird
because nothing (of this) **REFL** change will

b. weil sich nichts verändern wird

- I will assume that Themes are always merged internally (*configurational theta theory*).
- → The Reflexive Pronoun is merged externally (see Embick 1998, McGinnis 2004 for Romance).
- Therefore Principle A cannot be respected. The reflexive Pronoun does not have a c-commanding DP as its antecedent.
- Despite this violation of Principle A, the structure survives syntactically (see below).

⁴ A full discussion of the behaviour of German reflexive anticausatives with respect to other unaccusativity diagnostics is beyond the scope of this talk. See Schäfer (in prep.) for such a discussion where it is argued that some tests indeed show that the theme is an internal argument in both marked and unmarked anticausatives while the other tests are at least compatible with this result.

- Following the post-syntactic mode of configurational theta role assignment in (19), I assume that an unbound anaphor (without denotation) is not assigned a thematic role.

(19) Configurational Theta-Role Assignment:

The **Denotation** of a DP *X* bears a specific thematic relation *R* (*R* = Agent, Causer, Theme, ...) to an event *E* due to the specific syntactic relation of *X* to the syntactic structure expressing or modifying *E*.

- Since reflexives have no reference/denotation on their own, an unbound reflexive remains without reference/denotation. Therefore it cannot realize a theta role. If the unbound reflexive is merged in SpecVoice this results in an expletive Voice projection⁵ which does not introduce an external thematic role. We get unaccusative/anticausative semantics in a transitive syntax.
- If the verb (-al root) is not compatible with such semantics, the structure is filtered out as incomprehensible at the CI-Interface (e.g. activity verbs such as ‘*read*’ or agentive change of state verbs like ‘*murder*’). But verbs undergoing the causative alternation pass the CI-interface even if no external theta role is assigned.⁶
- That a verb forms marked instead of unmarked anticausatives needs to be coded somewhere. Following Haspelmath’s (1993) crosslinguistic study (cf. TABLE 2) I assume that some verbs/roots have the formal requirement to occur in the context of Voice, i.e. to be at least syntactically transitive even if no external theta role is involved.⁷

4. The Analysis

4.1 Binding Theory

- I assume that (local) binding is syntactically derived via an Agree relation where the antecedent acts as a probe and a variable acts as a goal (cf. Heinat 2006, Fischer 2004, 2006 and also Burzio 1996, 1998, Reuland 2001). The effects of Principle A and B are derived derivationally.
- This means that not only heads but also phrases (antecedent) can act as probes (cf. Heinat 2006, Fischer 2004, 2006)⁸ to get their unvalued features valued as soon as they are externally merged.
- A (locally bound) variable is totally underspecified with respect to Φ -features; it is a set of a categorical D-feature and unvalued Φ -features {D, u Φ }.⁹ Therefore it is referentially defective. Further, it needs an antecedent to value its features under Agree (see below).

⁵ Cf. Doron’s (2003) ‘middle Voice’ and Embick’s (1998) typology of *v*.

⁶ Generic Middles have the same syntax (expletive Voice); see Schäfer (2007a) for a proposal how generic middles of agentive verbs can pass the CI-Interface although no external theta role is projected in the syntax.

⁷ This means we need some counterpart of the lexical c-selectional features assumed in Ramchand (2006).

⁸ Heinat (2006) argues that the restriction that only heads are probes is a mere stipulation within Bare Phrase Structure and he shows that having phrases as probes does not have unwanted consequences for the computation of standard constructions (active, double object, passive, raising, ECM) due to the PIC and inactive goals.

⁹ My definition of variables and referential pronouns differs from the definition in Heinat (2006) who assumes that both originate from a root pronoun in combination with different functional material on top (D vs. N+D). Further he follows Pesetsky & Torrego (2004) in separating valuation and interpretability.

- At LF the syntactic Agree relation is evaluated semantically as a binding relation (as expressed via coindexation in earlier stages of the theory).
- At PF the Agree relation is evaluated morpho-phonologically and the variable is spelt out in a language specific way (Halle & Marantz 1993, Heinat 2006). The specific spell out (as a reflexive or as a (locally bound) pronoun) depends on the Φ -features of the antecedent and language dependent morpho-phonological economy conditions (cf. Burzio 1998).
- Full fledged referential pronouns are the combination of a D-feature and a set of interpretable Φ -features $\{D, \Phi\}$ and always spell-out their full set of Φ -features.

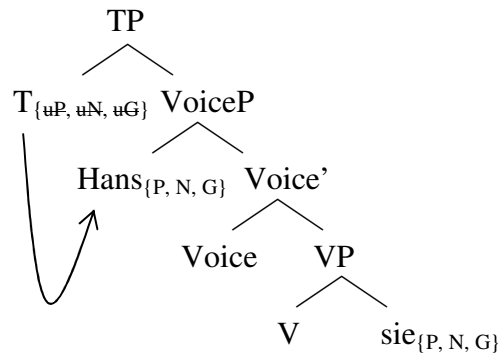
4.2 Verbal Agreement and Case

- I assume that overt verbal agreement as well as morphological case are mainly PF phenomena accounting for the fact that both are not universal (see for example Marantz (2000), McFadden (2004), Sigurðsson (2003, 2005) for Case).
- Yet, I assume that PF evaluates syntactic Agree relations, e.g. the Agree relation between Tense (or a decomposition of it) and the closest accessible DP in the domain of Tense.
- At PF Tense might spell out the Φ -features of the DP it has undergone Agree with.
- At PF this DP might be spelled out with nominative due to this syntactic Agree relation (cf. Haider (2000)).
- Any other DP in the same relevant domain which is not lexically case marked gets dependent accusative case.
- PROBLEM: Having disregarded case as a syntactic phenomenon (i.e., feature) leaves me without a formal explanation of how the antecedent of an anaphor is activated as a probe (and how a DP is activated as a Goal, e.g. for Tense). Heinat assumes that the unvalued case feature activates the subject as a probe which checks the ϕ -features of the anaphor. The case feature is valued later when Tense is merged.
- I will simply stipulate that every DP can act as a probe exactly then when we see that it can bind an anaphor in its c-command domain. If a syntactic binding theory is on the right track a formal account of what activates potential antecedents has to be developed. Case as activator of antecedents faces a number of shortcomings, too. For example it only works for subject antecedents but not for antecedents which are inherently case marked. Further probing/antecedency sometimes must be optional as for example an indirect object never binds a direct object obligatorily.
- [I exemplify the derivations below with a case system that relates nominative to tense. Among other arguments, phase theory suggests that this view is not completely correct. I think that the account developed here can easily be rearranged in a system that assumes that case is negotiated within VoiceP. This can be done by combining the proposals on case checking in Marantz (2006) and Müller (2004). What is important is that nominative depends on the checking of Φ -features, in this case with the Voice head. This is done by the element in Spec of Voice (if possible), alternatively by an element in the c-command domain of Voice. See Schäfer (in prep.) for details about this alternative.]

4.3 The Derivations

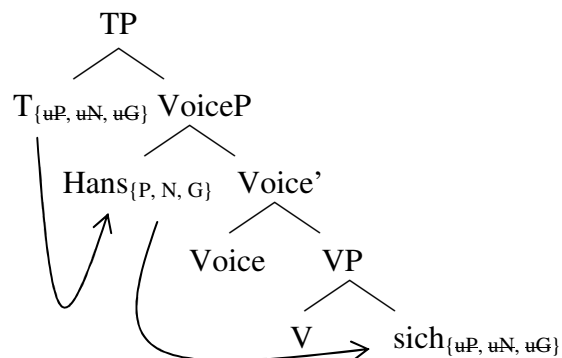
- The derivation of a sentence with referential object pronoun is shown in (20).

(20) Hans besucht sie
Mary visits her



- Tense probes down the tree and agrees with the closest goal, the subject. At PF the Agree relation leads to the overt verbal agreement with the subject's Φ -features and nominative morphology on the subject which in turn triggers accusative morphology on the object.
- (21) shows the derivation for a locally bound variable in object position.

(21) Hans mag sich
John likes himself

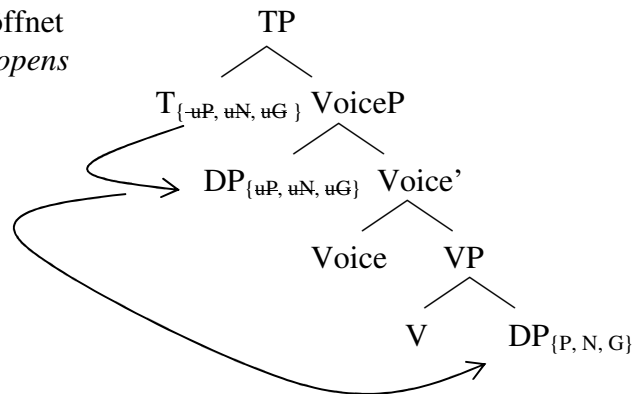


- The variable enters the derivation with unvalued Φ -features. The subject is merged with a full set of Φ -features. I have to stipulate that the subject¹⁰ can act as a probe although it is not clear what activates it. The subject DP probes down and values the anaphor's features. This Agree relation is evaluated at LF and PF. Tense is merged and agrees with the subject. At PF we get verbal agreement with the subject, nominative on the subject and dependent accusative on the variable. The variable is spelt out in a language specific way, in German as a reflexive pronoun due to the third person antecedent.

¹⁰ Languages differ in whether indirect objects can bind anaphors. What is important here however is not so much the spell out of the variable with an indirect object antecedent but its interpretation. If an indirect object can license a variable in the direct object position we have to conclude that an Agree relation is established. The fact that such an Agree relation is realised as a pronoun in some languages but as an anaphor in other languages is a mere PF phenomenon. If however indirect objects cannot license direct object variables, we have to conclude that the indirect object cannot act as a probe. As mentioned above, probing/antecedency of an indirect object is optional.

- Next I turn to anticausatives with a variable in Spec *Voice*.

(22) weil sich die Tür öffnet
because REFL the door opens



- The theme DP is merged in object position and the variable is merged in Spec, *Voice*.
- I assume that the variable is not a probe.¹¹
- When Tense is merged it probes down the tree. Assuming *multiple Agree* as well as a conception of *Agree* as *feature matching* (Chomsky 2004)¹², Tense agrees with the variable but since both have the same unvalued features, no valuation takes place. Tense probes further down and agrees with the theme. The features of the variable get thereby checked and deleted too.
- The result is that the spell out of both the verbal agreement and the variable depend on the features of the theme. Further, since the theme values Tense, it gets nominative at PF and the variable gets dependent case, i.e. accusative.
- An interpretative evaluation of the variable cannot take place. There is an *Agree* relation but the *c-command* relation is not right. The referential DP is *c-commanded* by the non-referential one. This is not the right constellation for index transfer/semantic binding at LF. The anaphor remains without interpretation (expletive) and is probably deleted at LF (Full interpretation).
- This is syntactically no problem. All unvalued features are deleted. But we have to interpret the result. The result is a structure where no external theta role is assigned/realized. This is typically unacceptable; it is filtered out as interpretative rubbish at the CI-Interface. Only with verbs that are unspecified for external causation the result is acceptable.

¹¹ This might be problematic in cases where an anaphor binds a second anaphor as in (i).

(i) He shows himself to himself

¹² Or feature sharing (cf. Frampton & Gutmann 2000).

5. Motivating the derivation of non-thematic reflexives: Dative Causers

- This section gives further motivation for the formal derivation of the non-thematic reflexive pronoun/expletive Voice (Section 4.2/4.3).
- The formal derivation of the non-thematic reflexive pronoun/expletive Voice crucially builds on the assumption that the variable in SpecVoice does not have any antecedent.
- It makes the prediction, that the variable gets assigned an external theta role as soon as it has a (local) antecedent.
- This section argues that this prediction is indeed borne out. It explains why the Dative causer construction is blocked in the context of German reflexive anticausatives.
- Many languages have a construction where a (human) Dative DP combines with an inchoative event.
- The dative DP in such a context can have **two readings** (cf. Cuervo (2003), Härtl (2003), McIntyre (2006), Schäfer (in prep.), Wegener (1985)).
 - i) *'affectedness'* reading: The Dative denotes the *benefactor* or *malefactor* of the event
 - ii) *'unintentional causer'* reading: The Dative is the *'unintentional causer'* of the event.¹³ This second reading can be forced by adding adverbs like 'by mistake/unintentionally' to the sentence.

- (23) a. Dem Hans zerbrach die Vase (German)
 The.DAT John broke the.NOM vase
 i) 'The vase broke and John was affected by this'
 ii) 'John unintentionally caused the vase to break'
- b. A Francesca è bollito fuori il latte (per errore) (Italian)
 To Francesca is boiled.M.SG over the milk (by mistake)
 i) 'The milk boiled over on Francesca'
 ii) 'Francesca accidentally caused the milk to boil over'

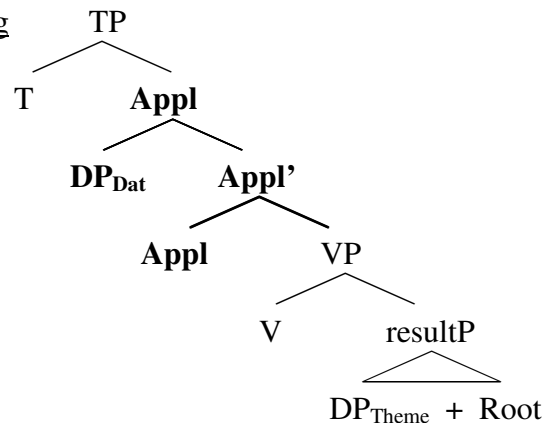
¹³ I use the term 'unintentional causer' as a cover term. Crosslinguistically the dative can be interpreted as the causer of the inchoative event under the following three scenarios identified by Ganenkov, Maisak & Merdanova (2007). These authors discuss the three readings for the East Caucasian language Agul illustrated below, where the 'unintentional causer' which combines with an inchoative event is marked by Adelative case. Crucially, exactly the same three scenarios are compatible with the corresponding dative causer construction in at least German, Italian and Greek. This interpretative parallelism strongly suggests that we are concerned here with basically the same construction. Note that reading C cannot really be called 'unintentional'.

- (i) ruš.a-f-as raḱ daqu-ne.
 girl-Ad-Elat door:Abs open-Perf
 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: (Father 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 so happened that) The girl managed to open the door.

- c. Na Ivan mu izgorjia kahstata. (Bulgarian)
 John.Dat he.Dat burned.3S house.the
 i) ‘John was affected by his house burning’
 ii) ‘John involuntary caused his house to burn’

- We find the same construction in many different languages, e.g. in Spanish, Bulgarian, Romanian, Albanian and in many Caucasian languages (cf. Cuervo (2003), Rivero (2004), Kallulli (2006), Ganenkov, Maisak & Merdanova (2007), Kittilä (2005)).
- Following the analysis in Cuervo (2003) I assume that the Datives are introduced into the inchoative event via Applicative heads which express an abstract ‘have’-relation. (cf. also Anagnostopoulou (2003), Harley (1998), McGinnis (2000), Pylkkänen (2002); for German McFadden (2004), McIntyre (2006).)
- Here I will only discuss the syntax of the ‘*unintentional causer*’ reading. The ‘*affectedness*’ reading has a different syntax where ApplP is sandwiched between VP and the resultP (“the affected Dative HAS the resultant state of the theme”, cf. Cuervo (2003), Schäfer (in prep.)).
- Following Cuervo (2003) I assume that in the causative reading the Dative is applied to the whole inchoative event. The structure expresses that “the Dative DP HAS the change of state event”. This constellation is interpreted as responsibility/causation.

(24) The unintentional causer reading



- Some motivation that abstract possession is indeed the source of the responsibility/causation interpretation comes from the western Daghestan language Tsez, that shows by its overt case morphology that a possessive relation is involved in the ‘unintentional causer’ construction (cf. Kittilä (2005), Comrie (2000)).
- In (25a, b) you see the ordinary causative alternation, in (26) you see that a DP marked with possessive case combines with the anticausative verb and gets interpreted as the ‘*unintentional causer*’.

- (25) a. už-ā č'ikay y-exu-r-si
 boy.ERG glass.ABS II-break-CAUS-PAST.WIT
 ‘The boy broke the glass’
 b. č'ikay y-exu-s
 glass.ABS II-break-PAST.WIT
 ‘The glass broke’

(26) uži-q č'ikay y-exu-s
 boy.POSS glass.ABS II-break-PAST.WIT
 'The boy accidentally broke the glass'

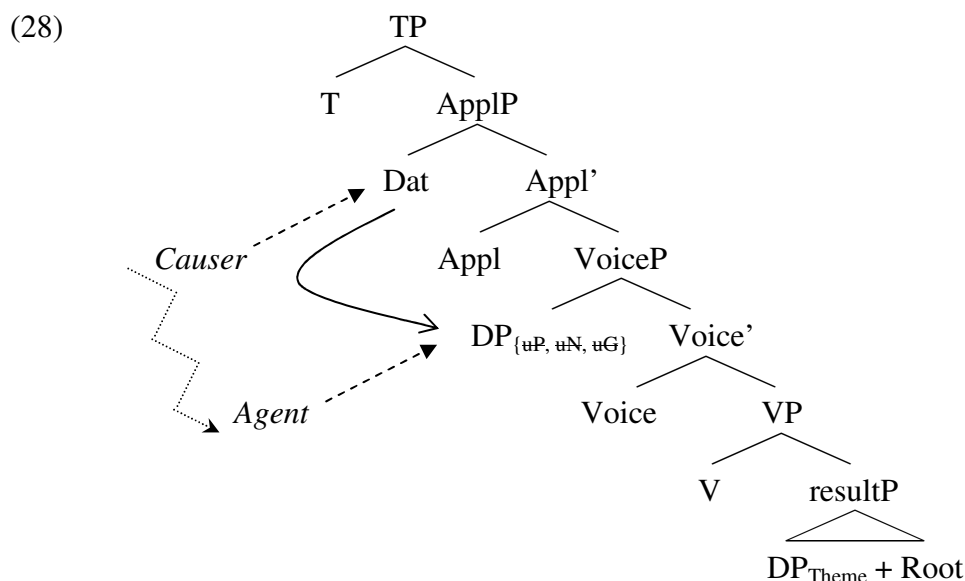
- **Question:** What happens with the dative in the context of marked anticausatives?
- **Observation:** German is very special here. Marked and unmarked anticausatives differ in the interpretations the dative can get.
- With *marked anticausative* verbs the Dative can **only** receive the 'affectedness' reading; the '*unintentional causation*' reading is **not** available. This can be made clear by the addition of adverbs like 'by mistake' or 'unintentionally' which are deviant in this context.

(27) a. Der Maria öffneten **sich** (*aus Versehen) alle Türen
 The-DAT Mary opened **REFL** (by mistake) the door
 i) 'All the doors opened and Mary was the beneficiary of this'
 ii) *'Mary (unintentionally) caused all doors to open'

b. Mir hat **sich** (*aus Versehen) der Wecker verstellt
 Me-DAT has **REFL** (by mistake) the alarm clock shifted
 i) 'The alarm clock shifted and I was affected by this'
 ii) *'I (unintentionally) caused the alarm clock to shift'

c. Der Menschheit verändert **sich** (*aus Versehen) das Klima
 The-DAT mankind changed **REFL** (by mistake) the climate
 i) 'The climate changed and the mankind is affected by this'
 ii) *'The mankind (unintentionally) caused the climate to change'

- The structure of the '*unintentional causer*' reading is given below. The dative is applied to the inchoative event which in the case of reflexive anticausatives has a Voice projection with a variable/reflexive in the specifier.



- Such data pose a problem for what is known as Burzio’s generalization, especially as the accusative behaves as a structural case under passive formation.

- (32) a. Stormurinn blés strompinn af húsinu (nom-acc causative)
the.storm.NOM blew the.chimney.ACC off the.house
 ‘The storm blew the chimney off the house’
- b. Af húsinu blés strompinn (acc -> acc anticausative)
off the.house blew the.chimney.ACC
 ‘The chimney blew off the house’
- c. Strompurinn var blásinn af húsinu (acc -> nom passive)
the.chimney.NOM was blown off the.house
 ‘The chimney was blown off the house’

- It has been argued by Haider (2001) that the German counterpart of the Icelandic ‘stray accusative’ construction is the ‘*es*-construction’ illustrated below in (34a, b):

- (33) a. Sein Durst trieb ihn ins Lokal b. Der Wind trieb den Kahn an Land
His thirst drove him in-the bar The wind drove the boat to.land
- (34) a. Oft treibt es ihn ins Gasthaus b. Es trieb den Kahn an den Strand
Often drives it him.acc to-the bar It drove the.acc boat to the beach

- The Icelandic ‘stray accusative’ construction and the German ‘*es*-construction’ are similar in their syntax as well as their semantics.

7.1 Syntactic Transitivity

- Burzio’s Generalization can be derived from Case Theory if we assume a licensing dependency between structural cases (e.g. Haider 2000, Marantz 2000, McFadden 2004, Siggurðsson 2003, 2005). In a NOM-ACC system licensing of structural accusative is dependent on the presence of Nominative/structural case on a higher element (in a relevant domain). Nominative is either the default case or it is licensed functionally, e.g. by finite tense.
- Haider (2001) argues that the ‘stray accusative’ construction is syntactically transitive and therefore in line with Burzio’s Generalization. These constructions have a *pro* in the external argument position (cf. also Platzack (2006)). The accusative DP is EPP-attracted to the functional domain.

- (35) a. [F° [VP *pro*_{nom} [V’ V° DP_{Acc}]]] →
 b. [C° [DP_{Acc} [F° [VP *pro*_{nom} [V’ V°]]]]]

- More concretely, the ‘stray accusative’ construction is the Icelandic counterpart of the German ‘*es*-construction’ seen before.¹⁵
- **Question:** What is the nature of the covert external argument?

¹⁵ For further empirical motivation of this claim see Kainhofer (2002).

- It is a so called quasi argument, the weather-*it*. Crucially, quasi arguments in Icelandic weather-predicates are phonetically silent and analyzed as *pro* by Sigurðsson (1989) while they are spelled out as ‘*es*’ in German.

- (36) a. Rignði (*það) mikið í gær (Icelandic)
Rained it much yesterday
 b. Gestern regnete *(es) viel (German)
Yesterday rained it much

- The weather-*it* is NOT an expletive; it originates in the external argument position.

7.2 Semantic Transitivity

- If the quasi argument is merged in the external argument position, it should have a theta role, especially under a configurational theta theory (Spec of Voice).

Question: What is the theta role of *es/pro*?

A simpler question: Can we identify some thematic/semantic effect connected with *es/pro*?

- Haider (2001:5): “... [It] is an impersonal construction with **the interpretation of an unidentified cause of the event...** “
- Sigurðsson (2005:105): “... the peculiar ‘accusative unaccusative’ construction in Icelandic has **a special uncontrolled process semantics, a get-passive fate reading** of a sort, hence the term Fate Accusative ...”
- Platzack (2006: 82): “... cases like (...) have an **uncontrolled process or fate reading, often with a natural force as a kind of hidden agent. ...**”

Question: Can we make this FATE meaning component somehow tangible?

- The *by itself* test is typically taken to diagnose the presence of an external argument (agent, causer). Crosslinguistically, anticausatives but not passives license *by itself*. The ‘*es*-construction’ can not be modified with ‘*by itself*’ (and patterns thereby with passives).

- (37) a. The plate broke by itself b. *The vase was broken by itself
- (38) a. Die Vase zerbrach von selbst b. *Die Vase wurde von selbst zerbrochen
The vase broke by SELF The vase was by SELF broken
- (39) a. weil es den Kahn (?? von selbst) ans Land trieb
because it the boat.ACC by itself to-the beach drove
 b. Den Kamin hat’s (*von selbst) vom Dach geweht
The.chimney.ACC has it (by itself) from-the. roof blown

- Icelandic anticausatives with nominative themes allow the ‘*by itself*’-phrase (Ottósson 1989). Case preserving anticausatives pattern with the German *es*-construction.¹⁶

¹⁶ p.c. Gunnar Hrafn Hrafnbjargarson and Thórhallur Eythórssón.

- (40) a. Dyrnar opnuðust af sjálfum sér
Door.the.NOM opened of self REFL
 b. Rúðan brotnaði af sjálfri sér
Window.glass.the.NOM broke of self REFL
- (41) a. Bátinn rak að landi (?af sjálfum sér)
Boat.the.ACC drove at land of self REFL
 b. Stropinn blés af húsinu (*af sjálfum sér)
chimney.the.ACC blew from house of self REFL
 c. Sögunni lauk (*af sjálfri sér)
Story.the.DAT finished of self REFL

- The *by itself* test shows that a thematic external argument is involved in the ‘*es*-/stray accusative’ construction. These constructions are syntactically and semantically transitive.

7.3 The origin of the FATE semantics

- I claim that the ‘stray accusative/*es*-construction’ is related to the causative alternation. More precisely, the following constructions are syntactically connected and can be seen as ordered on a “transitivity scale” as in (42).

(42) *Transitivity scale:*

causative > *es*-construction > reflexive anticausative > unmarked anticausative

- Motivation: The constructions are in a subset relation, at least in German.

(43) [[[causatives] *es*-construction] anticausative]

- Virtually all verbs that form causatives as well as (+/-reflexive) anticausatives can also occur in the ‘*es*-construction’ (e.g. (44)).
- Some verbs form causatives and the ‘*es*-construction’ but not anticausatives (e.g. (45)).

Some verbs form causatives but neither the ‘*es*-construction’ nor anticausatives (e.g.

- (46)).

- (44) a. Hans zerriss das Papier b. Die Explosion zerriss den Kessel
Hans tore the paper The explosion ruptured the boiler
 c. Es hat den Kessel zerrissen d. Der Kessel zerriss
It has the boiler ruptured The boiler ruptured

- (45) a. Der Jäger/Der Fels erschlug das Reh
The hunter/the rock struck-dead the deer
 b. Da hat's das Reh erschlagen c. *Das Reh erschlug (sich)
There has it the deer struck-dead the deer struck-dead (REFL)

- (46) a. Hans hat den Präsidenten ermordet
John has the president murdered
 b. *Es hat den Präsidenten ermordet c. *Der Präsident ermordet (sich)
It has the president murdered The president murdered (REFL)

- I propose that the scale in (42) reflects *degrees of referentiality* of the structural subject.
- Referentiality in turn depends on the ϕ -feature content of the element in *SpecVoice*.
- In principle any subset of Φ -feature specification should be possible (cf. Reuland 2001). I assume that weather-pronouns are *referentially reduced* because of a reduced Φ -feature set.

(47) *The referentiality scale:*

R-expression	Pronoun	weather-pronoun	Variable
{D {P, N, (G)}} + $\sqrt{\text{root}}$	{D {P, N, (G)}}}	{D, {N}}	{D {uP, uN, uG}}

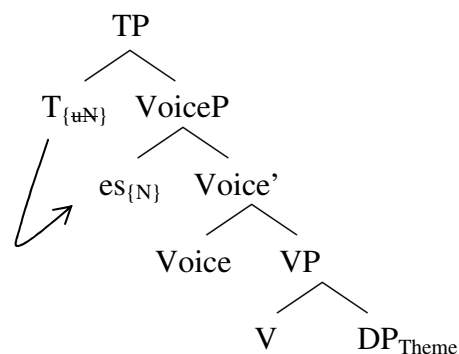
Proposal: FATE semantics is due to the abstractness of the external argument bearer.

- *es/pro* is referentially defective (e.g. we cannot question it, we cannot focus it with *selbst/self*) because it has a reduced ϕ -feature set.
- Nevertheless, since it is not totally defective, it can be assigned a theta role.
- The bearer of this theta role however remains abstract due to the referential defectiveness.

Question: What is the origin of the FATE meaning component?

- The FATE reading arises at the CI-Interface. It is the result of the fact an external theta role is assigned but the referent of this theta role cannot be made concrete.
- The FATE reading typically occurs if the external argument remains underspecified (and if in principle a more specified external argument would be compatible with the event.)¹⁷
- The derivation of the ‘stray accusative/*es*’-construction is given below. The question whether the subject is spelled out as a reduced pronoun or as *pro* is a pure PF-phenomenon.

(48) weil es die Tür aufdrückte
because it the door open-pushed



- The reduced pronoun is merged in the external argument position. If tense is reduced in the same way, it can check its ϕ -feature against the subject; we get verbal agreement and nominative on the subject; the theme gets accusative.¹⁸

¹⁷ This might explain why we do not get (so much) the FATE feeling in the case of weather verbs.

¹⁸ Alternatively one could assume that number on ‘*es*’ is valued while the other ϕ -features are unspecified. The result on Tense would be default agreement.

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