

# Radical decomposition and argument structure

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## List of Abbreviations

ABS	Absolutive	$\mathbf{f}$	Feminine						
$\mathbf{AC}$	Anti-causative	FI	Faire Infinitive						
$\mathbf{ACC}$	Accusative	${f fut}$	Future						
ACT	Active Intransitivizer (Salish)	FOC.A/S	Focus Subject						
ADESS	A dessive	$\mathbf{FP}$	Functional Projection						
ADHORT	Adhortative	$\mathbf{GEN}$	Genitive						
adj	Adjectivizer	G&M	Guasti and Moro						
$\mathbf{AGR}$	${ m Agreement}$	IMM	Immediate (Salish)						
AOR	Aorist	IMPF	Imperfective Auxiliary (Salish)						
$\mathbf{ART}$	Article	INCH	Inchoative						
$\mathbf{AS}$	Argument Structure	inf	Infinitival suffix						
$\mathbf{AUT}$	Autonomous Intransi-	INSTR	${\bf Instrumental}$						
	tivizer (Salish)								
$\mathbf{B\&K}$	Butt and King	IRC	Impersonal Reflexive						
			Construction						
$\mathbf{CAC}$	The Co-Affix Con-	$\mathbf{LCS}$	Lexical Conceptual						
	straint		Structure						
$\mathbf{CAU}$	Cause Transitivizer	LSR	Lexical Semantic Repre-						
G A TTG	(Salish)	T 0 0	sentation						
CAUS	Causative	LOC	Locative						
CL:	Classifier (Tariana)	L&R	Levin and Rappaport						
COLL.DET	Collective Determiner	MDP	Minimal Distance Principle						
CON	Compound Connector	m	Masculine						
$\operatorname{cop}$	copula	NACT	Non-Active						
C&S	Cardinaletti and Starke	NOM	Nominative						
C&Sh	Cardinaletti and Shlon- sky	n	$\operatorname{nominalizer}$						
DA	Degree Achievement	(NON)VIS	(Non-)visual (Tariana)						
$\mathbf{DEF}$	Definite	NUM.CL:	Numeral Classifier						
$\deg$	Degree	$\mathbf{neg}$	Negation						
DET	Determiner	$\mathbf{neut}$	Neuter						
dim	Diminutive	nf	Non-feminine (Tariana)						
distr	Distributive	(non)vir	(Non)virile						
DM	Distributed Morphology	nom	nominalization						
DRC	Dative Reflexive Construction	OBJ	Objective Case						
$\mathbf{EC}$	Elsewhere Condition	OBL	Oblique (Salish)						
ERG	Ergative	OC	Obligatory Control						

EXIS	Existential	OOC	Out-of-Control
$\operatorname{emph}$	Emphatic	PART	Partitive
PASS	Passive	$\mathbf{perf}$	Perfectivizing prefix
POSS	Possessive	$\mathbf{p.prt}$	Past Participle
$\mathbf{pf}$	Perfective	$\mathbf{pst}$	Past
pl	Plural	$\operatorname{prt}$	Participle
$\mathbf{pr.prt}$	Present Participle	PROG	Progressive
$\operatorname{pref}$	Prefix	pres	Present
REC.P	Recent Past	REM.P	Remote Past
refl	Reflexive	${ m refl.poss}$	Reflexive Possesive
$\mathbf{REP}$	Reported (Evidential in	RT	Reflexiva Tantum
	Tariana)		
sem	Semelfactive Theme	$\mathbf{s}\mathbf{g}$	Singular
SI	Secondary Imperfective	Clitic <b>SI</b>	Secondary Imperfective
			suffix (Polish)
$\mathbf{STA}$	Stative	SUB	Subordinating
${f Th}$	$\operatorname{Theme}$	TOP.ADV	Topic Advancing Voice
TOP.NON.A/S	Topical Non-Subject	TRANS	Transitive
VERT	Vertical	=	boundary (Salish)

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# Chapter 1

# Introduction

## 1.1 Event decomposition

One of the most prominent debates in the generative literature, starting most probably with Chomsky (1970) concerns the division of labor between processes and rules applying in the Lexicon and processes relevant to Syntax. The problem is especially acute in the domain of argument structure. Thus, researchers working within the lexicalist tradition, and endorsing the Lexical Integrity Hypothesis (cf. di Sciullio and Williams (1987)), still debate how much information should be associated with the lexical item. The kind of information that is being considered includes the notion of a thematic grid, the number and type (i.e. internal vs external) of arguments, the thematic labels of participants, etc.. As research has progressed, lexical entries have grown more and more specific. At the same time it has been noticed that the 'fat' lexical entries run into obvious problems related to a considerable flexibility of the argument structure configurations that a given verb (read: root) can occur in. (1) is from Borer (2005). (2) is an example of a systematic argument frame change that came to be known as 'causativeinchoative alternation' and will be a major topic of this dissertation.

- (1) a. The factory horns sirened throughout the raid.
  - b. The factory horns sirened midday and everyone broke for lunch.
  - c. The police car sirened the Porsche to a stop.
  - d. The police car sirened up to the accident site.
  - e. The police car sirened the daylight out of me.

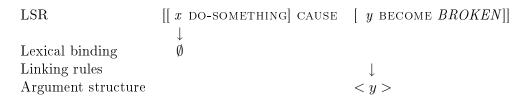
(Borer, 2005:(7))

- (2) a. Pat broke the window.
  - b. The window broke.

This fact lead some researchers to postulate an elaborate module of rules taking place in the lexicon, which relate to the syntactic component via

'linking rules' (cf. inter alia Levin and Rappaport (1995), Reinhart (1996), Reinhart (2002)). To take an example, in Levin and Rappaport's (1995) system the verb break has a complex bieventive Lexical Semantic Representation (LSR). The authors take the intransitive form of this verb to arise as a result of binding the external cause at the level of mapping from LSR to Argument Structure. This is schematically represented in (3):

#### (3) Intransitive break



#### (4) Transitive break



However, as argued in Borer (2005), the theory in which lexicon is a separate module with its own block of rules, (which, incidentally, have to be extrinsically ordered), and which has to communicate with syntax via another block of 'linking rules' essentially amounts to duplicating the same type of information in the lexicon, as well as in a syntactic tree. Moreover, the lexicon conceived of in this way operates with exactly the same kind of vocabulary that the syntax does (i.e. reference to external and internal arguments, passivization, reflexivization, etc.). From this perspective it seems that assuming only one module is the null hypothesis (cf. also Williams (to appear)). Finally, if it turns out that the syntactic principles operating outside the domain of a word (whatever the definition of the latter) are also relevant for the word-internal 'domain', there seems to be enough reason to take syntax to be responsible for handling what has traditionally been seen as lexical rules.

#### Idiosyncrasy of the lexicon

It needs to be emphasized, however, that being derived in syntax is not mutually exclusive with being listed in the lexicon. Thus, the usual lexicalist objection to deriving (some of) argument structure alternations in syntax is high degree of semantic idiosyncrasy and distinct phonological processes seen e.g. in so-called lexical causatives and passives, as opposed to syntactic causatives and passives (cf. Wasow (1977), Shibatani (1976), Hale and Keyser (2002), Travis (2000b) inter alia). This objection might in fact be orthogonal to the number of modules assumed. The property of idiosyncratic or noncompositional meanings associated with stative passives, and the lack

thereof for eventive passives is illustrated below for Chichewa, which uses two different morphemes to express two different passives: -idw for the eventive passive and -ik for the stative passive.

- (5) a. Chimanga chi-ku-gul-**idwa** ku-msika.
  corn AGR-PROG-buy-PASS at-market
  'Corn is being bought at the market.' (no idiomatic reading)
  - b. Chimanga chi-ku-gul-ika ku-msika.
     corn AGR-PROG-buy-STAT at-market
     'Corn is cheap at the market.' (idiomatic reading)
  - c. Chaka chatha chimanga chi-na-lim-idwa. year last corn AGR-PROG-cultivate-PASS 'Last year corn was cultivated.'
  - d. Chaka chatha chimanga chi-na-lim-ika. year last corn AGR-PROG-cultivate-STAT 'Last year corn was bountiful.'

Dubinsky and Simango (1996:756)

As observed, however, in Marantz (1997), the very fact that the eventive passive cannot receive any idiomatic readings seems to argue against equating the building blocks of syntax with 'phonological words', since one would expect that every 'phonological word' has a potential to develop idiomatic readings, as it necessarily belongs to the realm of lexicon.

Although in the present work adjectival or stative passives will only be of secondary interest, it is still hoped that this dissertation will adduce some evidence for the syntactic nature of the argument structure manipulations. To wit, I will take a different stand with respect to the contrast between (5a) and (5b). I will argue, contrary to Marantz and all other accounts postulating a fixed domain to which idiomatic readings are restricted, that the 'special meanings' are in fact possible, although much more rarely, with eventive passives. A good illustration is an idiomatic example: The die is cast. Being 'frozen' in the passive testifies to the idiomatic character of the phrase. One might argue that this is in fact a stative passive. Yet, a similar idiom is available in Polish, but the use of auxiliary zostać ('become') indicates the eventive nature of the passive:

(6) Kości zostały rzuco-n-e. dice  $become_{pst.3pl.non-vir}$  throw-PASS-pl.nonvir 'The die is cast.'

One more piece of reasoning that is missing is motivating the connection between eventivity and the type of auxiliary. I think this can be done by indicating the difference in time adverbial interpretation: if there is an event present in (6), the adverbial will pick up this event and specify it's time frame. If, on the other hand, the construction has only the stative reading, the adverbial will provide a time frame at which the state held. In the last case, if the predicate happens to be an individual-level predicate, the adverbial will coerce it into a stage-level predicate, as in (7):

(7) Yesterday John was intelligent.

To the extent that coercion is possible, the implication in (7) is that at some time either preceding or following *yesterday* John displays a lesser degree of intelligence.

Consider now (8):

(8) Wczoraj kości zostały rzuco-n-e. yesterday bones become<sub>pst.3pl.nonvir</sub> throw-PASS-pl.nonvir 'The die was cast yesterday.'

The interpretation of (8) is clearly eventive, i.e. the state of 'being thrown' holds of the die forever after the event took place (cf. Parsons' 1990 Resultant State).

One more piece of evidence for the eventivity inducing property of  $zosta\acute{c}$  is negation. Assuming, as is rather standard in Polish, that a prefixal negation on the participle induces an adjectival/stative interpretation, we see that whenever the negated participle occurs in the context of  $zosta\acute{c}$  ('become'), the meaning of the latter shifts to 'remain'. In other words, adjectival interpretation of the participle is incompatible with the Auxiliary use of  $zosta\acute{c}$ :

(9) Prawa zostały nie-ograniczo-n-e. rights become<sub>pst.3pl.non-vir</sub> neg-restrict-PASS-pl. 'The rights remained/\*became unrestricted.'

Since the interpretation of the 'Auxiliary' does not have to shift in (8) from 'become' to 'remain', I conclude that (8) is an eventive passive. Consequently, the idiomatic readings, as hard as they might be to find, are in fact available for eventive passives as well. If the idiomaticity of (6) is no different from the idiomaticity of kick the bucket, and the burden of proof is on those that would like to argue otherwise, then it becomes harder to delimit the domain of 'special meanings' (cf. also section 4.3.9 for more discussion on idioms).

Similarly, the claim in McGinnis (2000) to the effect that idioms are not available with category-external causatives does not seem to be borne out. Although McGinnis' claim concerns so-called 'outer' causative in Japanese, it seems that Italian causative in (10) is of the same status, as indicated *inter alia* by its predictable periphrastic nature, almost always compositional and predictable meaning, and the vague nature of causation. Yet, idioms are also available with this type of causative, as shown in (10) (Tarald Taraldsen, p.c.):

(10) far ridere i polli make laugh the chickens 'to do something ridiculous' Italian

Therefore, I will assume in the present work that the degree of frequency with which certain items or phrases are subject to semantic drift is dependent on the portion of the syntactic tree that they lexicalize: the lower the portion of the tree, the more often an item will be listed, and hence more prone to undergo semantic shifts. The demonstration of this particular point, however, is beyond the scope of the present work.

#### Why not Aktionsart?

Following the neo-constructionist view of argument structure alternations (e.g. Baker (1988), Ritter and Rosen (1998), Marantz (1997), van Hout (1996), Borer (1998), Ramchand (1997), Ramchand (2003)), I will decompose the information traditionally taken to reside in a lexical item into a hierarchy of syntactic projections. I will also adopt a post-Davidsonian approach to semantics, where the term is defined in Ramchand (2003) as "the theoretical position whereby verbs do not have events in their 'argument structure', but where events and subevents corresponding to the interpretation of verbal heads are utilised in the expression of compositional semantic meaning." (Ramchand, 2003:fn 10). The decomposition of the macro-event into subevents will not, however, be based on the aspectual properties of the structure (contra e.g. van Hout (1996), Borer (2005)). More explicitly, contrary to much of recent aspectual literature (cf. e.g. Verkuyl (1972), Dowty (1979), Tenny (1987), Krifka (1992)), I will not assume the so-called compositional approach to aspect, where the presence of a specified quantity of an argument X results in a particular (i.e. telic) aspectual interpretation of the verb. In other words, the answer to the question posed by Borer (2005): whether the syntactically relevant argumental roles are reducible to aspectual roles will be negative. Firstly, the priviledged role of the quantized internal argument in Slavic has been shown in Schoorlemmer (1997) not to hold for at least one way of the implication: the presence of the quantized DP does not induce a telic or perfective aspectual interpretation of the verb, i.e. (11), with a quantized internal argument, is atelic and imperfective<sup>1</sup>:

(11) Janek jadł tę kanapkę (przez pół godziny). Janek  $eat_{pst.3sg.m}$  this<sub>ACC</sub> sandwich<sub>ACC</sub> (for half hour) 'Janek ate this sandwich (for half an hour).'

<sup>&</sup>lt;sup>1</sup>For the purposes of this dissertation, it is not crucial to distinguish between (a)telicity on the one hand, and (im)perfectivity on the other, as in the cases considered here, the predicates pattern similarly with respect to all tests, independently whether these are perfectivity of telicity tests. Therefore, I do not wish to engage in a debate whether perfectivity can be reduced to telicity of not. The reader is referred to a vast literature on the topic (e.g. Filip (2003), Filip (2000), Borer (2005) and all the references therein).

Moreover, as argued in Ramchand (2003), even in English there is a group of verbs like push which get interpreted atelically in spite of the presence of a quantized internal argument, as e.g. in John pushed the cart for half an hour. In other words, I subscribe to Ramchand's position where she takes 'the telicity effects in the class of creation/consumption verbs with quantized objects to be semantic entailments and not encoded in the lexical determination of the verb or its syntactic reflexes' (Ramchand (2003:13)). These semantic entailments, I assume, are a general scenario in Polish in cases where the verb is perfective. Since the present work is not about aspect however, the reader is referred to Ramchand (2003) for elaborated arguments why the mapping from objects to events is only relevant for a subset of so-called 'direct arguments'. To a number of her arguments, let me just add one consideration from a Polish perspective.

Let us take the Borerian system (Borer, 2005) as an example of aktionsart approach to thematic roles<sup>2</sup>. Borer (pp. 19-20, ibid.) discusses and rejects Reinhart's argument against aspectual analysis relating to the existence of unaccusative atelic predicates. Borer uses Degree Achievements like *yellow* and *redden* to show that these are in fact *variable behavior verbs*: they can be interpreted as an activity, in which case the reading of (12) is simultaneous, or they can be interpreted as telic, and the reading is sequential:

#### (12) The apple yellowed and reddened.

This type of flexibility is obviously predicted by the radically constructionist system of Borer. Yet, it comes with an additional prediction that the sole argument of (12) on the activity reading will display behaviors associated with an external argument. This is because in Borers system, when  $\mathrm{Asp}_Q$  is not projected, the sole argument can only move to the Specifier of Event Phrase, and be assigned an interpretation of *originator* with all the syntactic consequences of this unergative structure.

Now, in this dissertation I show that precisely the group of verbs of the type of (12) (referred to as  $Degree\ Achievements$ ) in Polish are both atelic and imperfective, while at the same time they display clearly unaccusative behavior (i.e. in the relevant sense of a given level of 'unaccusativity' - cf. the discussion in section 1.4). Their atelicity is manifested in compatibility with a for  $X\ time$  adverbial in (13). In section 2.2.8 I argue that they behave as unaccusative predicates in the sense that they resist Secondary Imperfective formation (cf. (14)). Further substantiation of their unaccusative nature is provided in chapter 3, where incompatibility with the reflexive marker, as well as ungrammaticality in Impersonal Passive (cf. (15) and (16) respec-

<sup>&</sup>lt;sup>2</sup>The choice of this particular system is crucial since Borer (2005), as opposed to e.g. Verkuyl (1972), does derive the presence of only one-way implication in Slavic: the DP in Spec, Asp<sub>Q</sub>P is always interpreted as quantized by virtue of Spec-head agreement with the prefix located in the head of Asp<sub>Q</sub>P; yet, the presence of the DP is not necessary for the telic interpretation to arise.

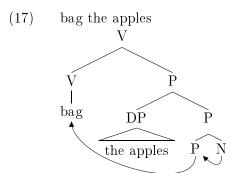
tively) is invoked.

- (13) Jabłko czerwieniało przez dwa tygodnie/\*w dwa tygodnie. apple $_{NOM.neut}$  redden $_{pst.3sg.neut}$  for two weeks/\*in two weeks 'The apple reddened for two weeks.'
- (14) \*przy-ślepn-ywa-ć, \*wy-piękn-ywa-ć pref-blind-SI-inf, pref-beaut-SI-inf intended: 'to be getting blind, to be getting beautiful'
- (15) \*czerwienieć się, \*ślepnąć się, \*pięknieć się redden refl, get.blind refl, get.beautiful refl
- (16) \*Czerwienia-no/ \*Ślepnię-to. redden-NO/ \*get.blind-NO intended: 'There was reddening/ getting blind.'

The conclusion from the preceding discussion seems to be that the aspectual properties of the predicate need to be established independently from the event structure where particular arguments receive semantic interpretation. In the present work I will refer to the latter region of the clause as the 'thematic domain'. That is not to be taken as implying that no Aspectual heads can appear within this domain (cf. also the discussion in Travis (2005) on the distinction between lexical, functional, and event-related categories). The term 'thematic domain' refers to a low region of the clause (roughly the domain of A-movement).

#### Dynamic boundary of l-syntax/ first phase syntax

Certain fundamental assumptions relating to the status of this thematic domain also require elucidation. A variety of terms has been employed in the literature to refer to this domain, which traditionally has been taken to belong to the lexicon, two most known of those terms being Hale and Keyser's (2002) l(exical)-syntax and Ramchand's first phase syntax. The leading idea behind postulating this separate sub-module of syntax is the observation that the information associated with particular lexical items is subject to the same principles that govern the syntactic component, while at the same time displaying certain differences alluded to above (e.g. idiosyncratic character). Thus, Hale and Keyser (ibid.) argue that denominal verb as e.g. bag or shelve are derived through 'conflation' of N with P, as in (17).



The assumption in (17) is a necessary tight relation between (18a) and (18b).

- (18) a. put the apples in the bag
  - b. bag the apples

Conflation is argued to be subject to the Head Movement Constraint (cf. Travis (1984)), as confirmed by impossibility to 'skip' P on the way to V:

### (19) \*bag the apples in

Extending Hale and Keyser's line of argumentation, Travis (2000b) and Travis (2005) provides further evidence for the syntactic looking constraints on the structure of the lexical items. Her argument is based on the formation of lexical causatives being subject to the Doubly Filled Voice Filter (originally from Sportiche (1998:273)) in Tagalog. The main claim is that the lexical as well as syntactic causative morpheme pag- is only allowed to surface overtly in case the argument has moved out of the Specifier of the projection where pag- is located. Otherwise the morpheme has to delete. As has been mentioned before, it is the null hypothesis that if the l-syntax, as well as s-syntax can be described in similar terms, they have to be so described.

Yet, if there weren't any differences between l-syntax and s-syntax, the discussion would never arise in the first place. And as I mentioned before, the differences most often discussed in this context include semantic and phonological idiosyncrasy, as well as lack of productivity of l-syntax. Semantic idiosyncrasy was illustrated in (5) for the 'lexical' passive. The lack of productivity is exemplified in (20), where *arrive* cannot undergo 'lexical' causativization in spite of its being unaccusative (cf. its ability to occur in a presentational *there* sentence in (21), as well as as a prenominal participle in  $(22)^3$ .

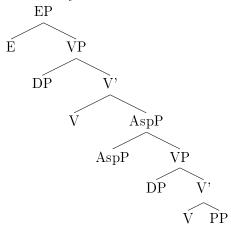
(20) \*Mark arrived some people.

<sup>&</sup>lt;sup>3</sup>Both of these tests might in fact be challenged as unaccusativity diagnostics. I employ 'arrive' as it seems to be the most certain candidate for an unaccusative verb in English in view of the problems with English unaccusativity diagnostics (cf. specifically section 1.4 for more discussion of that point).

- (21) There arrived some people.
- (22) recently arrived guests

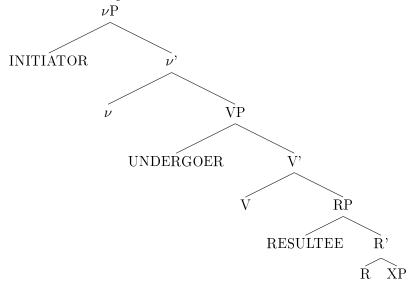
In a radical system which does not assume a boundary between l-syntax and s-syntax (20) is predicted to be possible, contrary to facts. Assuming then that there exists a boundary between the somewhat 'unruly' syntax and the syntax proper, a question arises with respect to the locus of this boundary. This is the point on which different theories diverge. For Hale and Keyser (2002) the external argument can only be introduced in the syntax proper (i.e. s-syntax) by a functional projection. Functional projections by hypothesis do not occur within l-syntax. In Travis (2000b) and (2005) the boundary is instantiated by Event Phrase (EP) located on top of the higher VP shell, as in (23).

#### (23) Travis' l-syntax domain



In this sense l-syntax includes an external argument introduced by the higher verbal head (or by Asp in certain circumstances - cf. chapter 5). Travis' system shares this assumption with Ramchandian tripartite structure for the 'first phase syntax' represented below.

### (24) Ramchandian tripartite lower domain



All of the aforementioned theories represent a 'static' approach to the l-syntax-s-syntax boundary. The main proposal in the present dissertation will relate to a 'dynamic' way of conceiving of the boundary in question. In other words, I will adopt the part of the proposal in Travis' system that postulates the existence of certain morphological devices delimiting one event domain. The morphological exponents in question will be labeled *Event Separators* (ES) and will be instantiated by participial morphology in Polish. However, due to a dynamic nature of ES merger, in different constructions different configurations might arise, yielding various degrees of the presence of an external argument. In this sense, it seems to me, the conflict between Hale and Keyser's on the one hand, and Travis' and Ramchand's system on the other hand seems to be resolved.

In spite of the differences existing between Travis' and Ramchand's systems (e.g. the Aspectual projection intervening between the two verbal shells in the former vs the lack of such a projection in the latter system), many of the aspects of both could be compared. Out of necessity to keep the terminology consistent, but also due to the fact that Ramchandian system seems to be better equipped to handle lexical prefixation in Slavic (due to the existence of a special projection - Result Phrase (RP)) - I will adopt the tripartite division in (24) with certain crucial modifications.

#### Basic assumptions concerning decomposition

According to Ramchand (2003),  $\nu P$  introduces the causation event and licenses different types of external arguments. VP, on the other hand, specifies the nature of the change or process and licenses the entity undergoing change

or process. The latter is a definitional property of every dynamic verb. Finally, RP gives the 'telos' or 'result state' of the event and licenses the entity that comes to hold the result state. Both Causation event, as well as Result event are taken to be states, whereas the obligatory event is a Process. This is meant to lead to a simpler ontology. The particular subevents are 'glued' together by means of a 'cause/lead to' relation (following Hale and Keyser (2002)) under the rubric of *Principle of Event Composition*. Ramchand's definitions of two derived predicates over events based on this event composition rule are illustrated in (25):

$$\begin{array}{lll} \text{(25)} & \text{a.} & \left[\;\exists\; e_1,\, e_2\; [State(e_1)\;\&\; Process(e_2)\;\&\; e_1 \rightarrow e_2\;]\right] \rightarrow_{def} Causing(e_1) \\ & \text{b.} & \left[\;\exists\; e_1,\, e_2\; [State(e_1)\;\&\; Process(e_2)\;\&\; e_2 \rightarrow e_1\;]\right] \rightarrow_{def} Result(e_1) \end{array}$$

I will modify that structure slightly. Firstly, I will assume that the Process (if any) always resides in  $\nu$ P. The reasons for that particular assumption are several. Firstly, it is not clear to me in what sense a State preceding the Transition/Process is necessarily tied to the presence of external initiator. For instance, from the point of view of Déscles and Guentchéva (1995) the preceding state is a characteristic property of every dynamic eventuality (i.e. both unergative run, as well as unaccusative arrive).

Secondly, if causing subevent is always a State, then the question arises how to distinguish between stative causative psych verbs (26a) and remaining causatives (26b):

- (26) a. His behavior surprised Mary.
  - b. He broke the stick.

Ramchand considers psych-verbs of the 'fear' type as different from regular causatives in that their object is Rhematic (i.e. further specifies the event, but is not an 'inner Subject'). Those, however, are crucially different from the verb in (26a), which passivizes and the interpretation of the object is clearly as 'undergoing' some change. One might distinguish between (26a) and (26b) by postulating that the Process denoting head is present only in (26b), but this is not an option in a system where the Process-denoting head is the obligatory nucleus of every verb. Therefore, I will assume (following Marantz (2003)) that the subevents out of which a macro-event is built can be of various types. Specifically, the causing subevent can be both a Process (as in the majority of causative verbs) and a State (as in stative causatives in (26a), as well as so-called 'anticausatives', cf. chapter 3 for further discussion).

Although the aforementioned issues might still be considered peripheral, there is one important consequence related to shifting the Process event upwards (i.e. from V into  $\nu$ ). The side-effect of this move is that process is no longer a definitional property of verbs. In other words, I will claim that

in verbs which lack  $\nu P$  augmentation, the Process part is only exceptionally available due to the operation of S-summing<sup>4</sup>. That means that the semantics of VP is Transition exclusively. This will have crucial consequences for the restrictions on the formation of so-called Secondary Imperfective (cf. section 2.2.8). Furthermore, I will also delimit a group of verbs where even the light verb layer has transitional (and not stative or processual) semantics, i.e. transitive directed motion verbs. More generally speaking then, the claim is that  $\nu$  denotes a Process (usually) or State (e.g. with psych-verbs or anticausatives).

One important property distinguishes Ramchandian system from the radically constructionist view expressed e.g. in Borer (2005). The latter claims, building on Marantz (1997) that the lexicon, or rather encyclopaedia, is a repository of unstructured 'stuff' whose relation to syntax is completely arbitrary. In Ramchand's words, "in the absence of any syntactic information at all, the lexicon reduces to a nomenclature whose cooption by the syntactic combinatoric system is reduced to an accident, or at best a mystery." (Ramchand, 2003:3). Since I share with Ramchand the concern to adequately capture the restrictions on argument structure flexibility, e.g. the fact that arrive in English can never be used transitively, I will not embrace the radical Borerian view either. The way Ramchand restricts the flexibility of the system is by 'tagging' a lexical item with categorial features which are syntactically relevant. Thus, e.g. her lexical entry for defuse is in (27):

(27) 
$$defuse: [\nu, V_i, R_i]$$

That means that the lexical item in question will associate its lexical encyclopaedic content with all the three heads: Cause (or Initiation in a more updated terminology), Process and Result. Coindexing is taken to indicate that one argument checks/identifies two subevents. This is due to the EPP requirement on each of the subevents.

The lexical entry for Process Intransitive dance is illustrated in (28).

(28) 
$$dance: [\nu_i, V_i]$$

Identifying the sole argument with the Subject of Process is forced by the assumption that VP is an obligatory part of every dynamic verb. If that is so, however, than the sole argument of dance should show at least some of the properties of objects, since Spec, VP is a prototypical object position. As far as I can see, however, no evidence to that effect is available, e.g. ne/en-cliticization out of unergative verbs in Romance is impossible. It might be contended, however, that the ne/en-cliticization is contingent on the fate of

<sup>&</sup>lt;sup>4</sup>What I call 'process' here corresponds to what is referred to as [+stages] in Rothstein (2004) and implies that the event is not an atomic entity, but has some internal constitution.

the argument after it has been merged in its initial position<sup>5</sup>. In other words, the movement from Spec,VP to Spec, $\nu$ P in the Ramchandian system might be argued to destroy the configuration relevant for subextraction. There is another argument, however, against the presence of VP, although it concerns a different set of data. Consider (29), where the presence of a lexical prefix in (29b) and (29c) induces a change in selectional properties with respect to the ACC object:

- (29) a. Janek bił kolegę/\*zęby. Janek $_{NOM}$  beat $_{pst.3sg.m}$  colleague $_{ACC}$ / \*teeth $_{ACC}$  'Janek beat a colleague.'
  - b. Janek **wy**-bił zęby/ \*kolegę. Janek $_{NOM}$  pref-beat $_{pst.3sg.m}$  teeth $_{ACC}$ / \*coleague $_{ACC}$  'Janek lost his teeth.'
  - c. Dyrygent śpiewał piosenkę/ \*dzieciaki. conductor $_{NOM}$   $\operatorname{sing}_{pst.3sg.m}$   $\operatorname{song}_{ACC}$ / \*kids $_{ACC}$  'The conductor sang a song/ \*the kids.'
  - d. Dyrygent roz-śpiewał dzieciaki/ \*piosenkę. conductor $_{NOM}$  pref-sing $_{pst.3sg.m}$  kids $_{ACC}$ / \*song $_{ACC}$  'The conductor got the kids into singing.'

Although unprefixed transitive  $bi\acute{e}$  ('beat') allows only animate objects, and unergative or cognate object  $\acute{s}piewa\acute{e}$  ('sing') allows a very restricted set of inanimate objects, once they are prefixed, the selectional properties switch around: wy- $bi\acute{e}$  can only take a very restricted set of inanimate objects, and roz- $\acute{s}piewa\acute{e}$  animate ones. In the Ramchandian system, the 'unselected' object would be introduced in the Specifier of RP, and due to the obligatory presence of VP and the EPP requirement on it, it would have to remerge in Spec,VP. If that is so, however, it is not clear how the selectional requirement of VP might be satisfied. One might propose alternatively that it is the external argument that is the UNDERGOER (i.e. it is merged in Spec,VP). Yet, the truth conditions of the prefixed sentences in (29) belie that sort of explanation: Janek did not have to drink as much as a drop of wine in order to get Maria drunk, as shown in  $(30)^6$ :

<sup>&</sup>lt;sup>5</sup>Although embedded in the present theory of anticausatives (cf. chapter 3), this line of argumentation would not work either since subextraction out of anticausatives is clearly possible in both Italian and French. If anticausatives are identical to unergatives in terms of the final landing site of the argument in Spec, initP, the subextraction test is predicted to come out identically, contrary to facts.

<sup>&</sup>lt;sup>6</sup>The choice of verbs in (29) is meant to exclude the analysis whereby the unprefixed versions do not involve a VP, but instead are Rhematic objects in Ramchandian system. In that case the argument would not hold, as the selectional restrictions in unprefixed (29bc) would only hold of the Rhematic complements. The only type of verbs that does not, as far as I can see, change selectional properties of objects when prefixed, is verbs participating in causative/inchoative alternation (cf. section 2.2.2 for discussion). These are precisely the verbs that possess VP layer, as I argue in subsequent sections. Thus,

(30) Janek u-pił Marię, za każdym razem wylewając Janek $_{NOM}$  pref-drink $_{pst.3sg.m}$  Maria $_{ACC}$  for each time pour.out $_{pr.prt}$  zawartość swojego kieliszka do zlewu. content his wine.glass into sink 'Janek got Maria drunk, each time pouring out the content of his wine glass into the sink.'

Considering the above, if optionality of VP has to be assumed at least for some cases, and if there is no evidence for the presence of VP with unergatives, it seems to be the null hypothesis that VP should also be absent in unergatives of the *dance* type. Therefore, I will simply assume that VP is missing with unergatives of that kind. The sole argument is interpreted as a Subject of Process in Spec, $\nu$ P.

Finally, Ramchand's lexical entry for a verb which has a very impoverished specification, i.e. widen (intransitive) is in (31).

#### (31) widen: V

Now, if transitivization amounts to causativization, then under Ramchandian assumptions, it follows that only verbs which lack  $\nu$ -shell will be able to be transitivized, as shown in (32):

(32) a. John widened the gap. b. \*John danced Mary<sup>7</sup>.

This type of reasoning, however, has to be taken with caution. Thus, e.g. based on the ungrammaticality of (33), Ramchand proposes that all of the relevant verbs are specified in the lexicon as in (34):

- (33) \*John arrived/fell/disappeared Mary.
- (34)  $arrive: [\nu_i, V_i, R_i]$

She claims that the sole DP is the instigational force behind its own transition to 'arrival'. That would imply that there are certain semantic nuances that get lost when translated to other languages with clearer unaccusativity diagnostics. Yet, from the Polish perspective, it seems especially unmotivated to propose (34), since as I will try to show in this dissertation (cf. especially in section 2.2), there is a substantial number of stems which do not have causative equivalents, in spite of not having  $\nu$ -shell. Moreover, if arrive was non-unaccusative in the sense of possessing  $\nu$  layer (cf. section

in order to refute the argument in the main text, one would have to assume that all verbs other than the ones participating in the causative/inchoative alternation involve Rhematic complements. To the extent that I understand Ramchand's system, this was not an intention

<sup>&</sup>lt;sup>7</sup>The cases of *John danced Mary out of the room* would probably be analysed as 'Mary' being interpreted as RESULTEE only.

1.4), it is not clear why it does pass all the other of the remaining few unaccusativity diagnostics, namely the possibility to occur in presentational *there* constructions, and attributive participle:

- (35) There arrived some people.
- (36) recently arrived guests

Of course, it is possible that presentational 'there' test is not really sensitive to the presence of  $\nu$ -layer, e.g. in Norwegian a corresponding construction allows unergatives such as danse ('dance'), sove ('sleep'), etc. (Tarald Taraldsen, p.c.). Furthermore, the prenominal participle test in (36) also presents certain problems: as observed in (Pesetsky, 1995:23), many of seemingly unaccusative verbs fail it. In this sense, however, arrive seems to be as 'unaccusative' as it could, as not only does it pass the presentational construction diagnostic, but also the very restrictive prenominal participle one. Thus, when faced with verbs such as arrive one has at least two strategies at one's disposal: either to accept that there can be some accidental gaps in causativization, which is what the Ramchandian system in any case does by means of the featural specification on verbs, or else to propose that the relevant verbs already display a causative tripartite structure and hence disallow further (morphological) causativization. Even if one is willing to assume that English arrive is in fact as in (34), the latter type of strategy for dealing with gaps in causativization would not help in Polish, since there exists a group of verbs in Polish which are unaccusative by all sorts of diagnostics (cf. chapter 2 and 3) and still do not possess causative equivalents. Some examples of this kind are in (37):

(37) przybyć ('arrive'), umrzeć ('die'), więdnąć ('wilt'), sczeznąć ('vanish'), kamienieć ('get stone-like'), marnieć ('get miserable')

In principle there is nothing wrong with identifying all three projections with one and the same argument. Polish, in fact, is transparent in that respect since it has a minimal pair: przybyć ('arrive') and udać się ('go, depart'), where the argument of the latter has clearly more 'instigational' properties than the argument of the former. This semantic difference correlates with unaccusativity diagnostics, i.e. only the latter is acceptable in the Impersonal Passive (cf. section 3.2 and 3.2.3).

- (38) a. \*Przyby-t-o na przyjęcie. arrive-PASS-o at party
  - b. Uda-n-o się na przyjęcie.
     go-PASS-o refl at party
     'Someone departed to the party.'

An important detail of (38b) is that the verb is necessarily marked with the reflexive marker. I will argue in section 3.1 that the reflexive marker signals identification of two  $\Theta$ -roles in one participant. If Polish requires identification of the external and internal  $\Theta$ -role to be licensed morphologically by means of the reflexive clitic, then it is only the verb in (38b) (but not (38a)) that represents a lexical feature specification proposed for *arrive* by Ramchand.<sup>8</sup>

At this point it is also necessary to take a stand with respect to the nature of  $\nu/v$ , which has been extensively used in the literature starting from Chomsky (1995b), and has grown to be the locus of a multiplicity of different functions. Some of the functions are enumerated below.

1. ν/v is a category-defining head, which selects for a particular root (cf. Marantz (1997) and subsequent work). Thus, Marantz (1997) postulates that v is only one of the three functional heads that determine the syntactic category of a root: v's, n's, a's. I will not adopt that assumption for two reasons. Firstly, Marantz claims that little v constructs verbal meanings like 'causative', 'stative', etc. That seems to suggest that the morphology displayed in the causative variant of alternating causative-inchoative verbs should be associated with little v. On the other hand, he also takes Semitic templatic morphology - a more plausible candidate for a category-defining head - to be associated with 'the little v system' (cf. Marantz (2001)). Clearly, there are languages which possess both: causative augments deriving the transitive variants of alternating verbs, as well as verbal templatic morphology. Consider e.g. Amharic in this respect:

(39) 
$$Amharic$$
  $\sqrt{dkm} - d\ddot{a}kk\ddot{a}m\ddot{a}$  ('be tired') -  $a$ - $d\ddot{a}kk\ddot{a}m\ddot{a}$  ('make tired')

The transitive variant of the relevant predicate has to be prefixed with the causative morpheme a-, while the verbal templatic morphology stays. Clearly, both the prefix and the template cannot occupy one head, unless some heads adjoined to little v are postulated. Therefore, in the present work, I will analyse causative morphological augments as occupying  $\nu$  and standing for a Process/State subevent with bleached encyclopaedic content. On the other hand, Polish, like Semitic, displays morphological verbalizers manifested in the shape of thematic vowels. I will take these vowels to be only indirectly determining the category of the root by spelling out the verbal functional sequence

<sup>&</sup>lt;sup>8</sup>The verb in (38b) is also lexically prefixed, which makes its lexical entry analogous to English *arrive* in the sense that it also includes RP.

(henceforth,  $f_{seq}$ ) (cf. section 1.2 for discussion). In this sense they might (as in the case of 'high' thematic vowels), but do not have to be associated with the Process/State subevent that I use  $\nu$  to denote. Apart from this empirical consideration, there is a more fundamental issue related to a general theory of lexical categories: V, N, A. Although it is beyond the scope of this work to prove the particular point (but see chapter 4 for arguments based on Polish participial passives and nominalizations), I believe Michal Starke's recent idea (nanosyntax seminar) to be on the right track: the distinctions between what we call 'adjectives', 'nouns' or 'verbs' are contingent on the region of the clause being spelled out by a particular lexical item. The lowest region of the clause receives the inflection perceived as 'adjectival'. If the derivation continues into higher regions, 'nominal' morphology occurs. Finally, an 'outgrown' noun becomes a verb. Hopefully, the investigations in chapter 4 will provide some substantiation of this claim.

- 2.  $\nu$  is the locus of manner (cf. Hale and Keyser (2002)). I will adopt that assumption with certain modifications with respect to Hale and Keyser's assumptions. Firstly, manner features (licensing manner adverbials) will depend on the nature of  $\nu$  (i.e. Process vs State). Secondly, Hale and Keyser (ibid.) distinguish between patient-manner and agent-manner verbs (e.g. splash vs smear respectively). Since in the latter verbs the manner component relates to the external argument, they are ungrammatical in the inchoative variant, which lacks an agent (cf. (40) vs (41)):
  - (40) a. The cars splashed mud on the wall.
    - b. Mud splashed on the wall.
  - (41) a. They smeared mud on the wall.

- (i) a. Książki nie zostały prze-czyt-a-n-e. books neg become $_{pst.3pl.non-vir}$  pref-read-**TH**-PASS-pl.non-vir 'The books have not been read.'
  - b. Książki zostały nie-prze-czyt-a-n-e. books remain neg-pref-read-TH-PASS-pl.non-vir 'The books remained unread.'

The theme vowel is glossed 'TH'. This point suggests that the presence of a thematic vowel cannot indicate that a given item is or has been a 'verb' at any point in its derivational history.

<sup>&</sup>lt;sup>9</sup>The *indirect* relationship between thematic vowels and a lexical category is manifested e.g. by the presence of thematic vowels in passive participles displaying essentially adjectival morphology. To the extent that participles employed in eventive passives might be argued to be adjectives derived from verbs, the latter strategy seems impossible in any neo-constructionist framework for stative adjectival participles, which do not entail any event taking place. Yet, both involve thematic vowels. I illustrate with a minimal pair (cf. the above discussion concerning *zostaé* ('become/remain')):

b. \*Mud smeared on the wall.

Hale and Keyser (2002:35)

I will however assume that the manner component on a  $\Theta$ -assigning head can only relate to the argument that it assigns a  $\Theta$ -role to (i.e. only an external argument in the case of  $\nu$ ). In this sense, however, the verbs in (41) are indistinguishable. The ungrammaticality of (41b) is thus taken to be due to the same reason that yields (42) ungrammatical, with inanimate mud as an external argument:

(42) \*Mud smeared butter on the carpet.

The reader is referred to chapter 3 for a detailed discussion of the anticausative structure involved in (40b).

- 3.  $\nu$  is the locus of agentivity, i.e. features relevant to the licensing and interpretation of external arguments. That will be adopted only with the reservation made above (i.e.  $\nu$  has to be a Process to involve agentivity). Furthermore, I restrict the licensing of external argument to the 'implied external argument', i.e. only licensing of adjunct by-phrases in a regular case (see below).
- 4.  $\nu$  checks/values ACC Case on the object. I will not adopt this assumption. In general, I will not adopt the Probe-Goal approach to Case checking (cf. e.g. Chomsky (1999)). Although  $\nu$  seems to be instrumental in ACC Case assignment, this is only due to the fact that a certain level in  $f_{seq}$  needs to be reached in order for the ACC Case to emerge. This assumed notion of Case is based on the idea by Michal Starke, where a structural Case has to emerge from oblique Case in the course of the derivation (cf. especially section 1.7 on more on 'peeling', as well as chapters 4 and 5 for the relevant discussion).
- 5.  $\nu$  introduces an external argument. That assumption requires some discussion. Although I argue that the presence of  $\nu$  licenses a Subject of Process/State, this is not yet the external argument that surfaces in a vanilla-flavor active sentence. Instead the Subject of Process is only an implied adjunct, and if it occurs, its morphological shape is oblique (i.e. a by-phrase). That means that I need to reject Ramchandian EPP feature on  $\nu$ .
- 6.  $\nu$  of a different flavor (i.e.  $\nu_{Become/Result}$ , cf. Alexiadou and Anagnostopoulou (2003)) is present with unaccusatives. I will not adopt that assumption. Thus, what I will sometimes refer to as 'unaccusatives' (although see the discussion in section 1.4) are structures where the verbal stem spells out bare VP (i.e. no  $\nu$  system is involved). The

issue relating to the presence of  $\nu$  with unaccusatives seems to be purely terminological in the following sense. In order to distinguish between 'unaccusative' and 'non-unaccusative' structures one of the two strategies seems to be available: (i) postulating multiplicity of different 'flavors' of a given functional head; (ii) pursuing a very fine-grained decomposition analysis of the relevant structures. Since in the present work I adopt the latter strategy, the difference between 'unaccusative' and 'non-unaccusative' verbs in the present system will boil down to a different number of functional heads involved. Had I chosen to assume  $\nu$  in the structure of inchoative 'unaccusatives', one additional head  $\nu_n$  would have to be involved in unergatives and transitives. Since the crucial border that seems to emerge out of empirical investiations in the present work is between inchoative 'unaccusatives' (i.e. Theme<sub>low</sub> stems) and other verbs (i.e. Theme<sub>high</sub> stems), I decide to label the transition head involved in the former as  $VP_{Become}$  in order to separate it from the light verb system involving multiplicity of  $\nu$ 's.

7.  $\nu$  defines the first phase. This assumption is representative of a strand of research building on Chomsky's (1999) proposal to the effect that syntactic derivations undergo semantic and phonological interpretation in incremental chunks or phases. Apart from  $C^0$  and  $D^0$ ,  $\nu^0$  assigning a Θ-role is claimed to head a 'strong phase'. The gist of the idea is that once a phasal head is complete, movement and agreement operations can only target the head of the phase and its edge (i.e. the Specifier and adjuncts), but its complement is 'frozen' or impenetrable. This hypothesis, combined with the empirical work on l-syntax or 'the domain of special meanings' instigated many accounts arguing for the phasal status of category-defining heads:  $\nu/v$ , a, n (cf. e.g. McGinnis (2000), Arad (2003) among many others). Thus, the major distinction between root-external and category-external material in a sense translates into the above discussion between l-syntax and s-syntax boundary. I will not adopt the phasal status of  $\nu$  either. The first, empirical reason is that certain unpredictable morphophonological processes are still happening above  $\nu$ . One example is the suppletive choice of a Secondary Imperfective (SI) morpheme in Polish. The usual Secondary Imperfective suffixes are: -aj- for the -i/y- conjugation class verbs, and -i/ywafor all the remaining classes. However, with some movement verbs the SI morphology is completely unpredictable, i.e. either suppletive or only vaguely related to the non-SI form:

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(43) a. wy-jść ('go out') vs wy-chodzić ('go out<sub>imp</sub>')
b. wy-jechać ('depart') vs wy-jezdzać ('depart<sub>imp</sub>')
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I argue in section 2.2.8 that the SI morphology hosting head is located on top of  $\nu$ . That seems to indicate that  $\nu$  cannot be the boundary delimiting the domain of special phonology, meaning, etc.

More generally speaking, I will argue that the stem is stretchable, and the boundary of the event (usually brought up in connection with so-called 'first phase') is dependent on the level where the so-called *Event Separator* merges.

Summarizing, the only function that  $\nu$  is fulfilling under current assumptions is introducing one of the subevents in a possibly complex macro-event. This is due to radical decomposition, where other features traditionally taken to be carried by  $\nu$  are taken over by other functional projections on top of  $\nu$ . Thus, all the assumptions enumerated above concerned the projection that I will label  $\nu_{NEUT}$  (or, more generally,  $\nu_1$ ). I will, however, propose that there is in fact a hierarchy of light verbs located on top of  $\nu_{NEUT}$  that license subsequent levels of 'externality' of an argument. In that sense, the distinction between 'internal' and 'external' argument will not be conceived of as a dichotomy, but rather as a gradient property correlating with the position of the DP in a functional sequence<sup>10</sup>.

It also emerges from the above discussion that I will have to make extensive use of a movement from one  $\Theta$ -position to another. This is firstly due to having three (inner) Subject positions: INITIATOR, UNDERGOER and RESULTEE (where a Subject should really be taken as Subject of some predication relation), and only two structural Cases: NOM and ACC. The second reason involves a particular analysis of the reflexive marker, whereby one DP needs to check two  $\Theta$ -features. This is tantamount to rejecting the  $\Theta$ -Criterion - a topic to which I turn in section 1.3. As for which participants can get identified with which other participants (Ramchandian coindexing convention), I take it that the underlying principle must be some version of Relativized Minimality (Rizzi (1990) - cf. section 1.3, as well as 3.1).

## 1.2 The lexicon

The question of 'unpronounced' lexical items, or zero morphology is related to the general view of the lexicon. As already mentioned, in Ramchand's system syntactic information is represented as 'tags' on lexical items. The lexical encyclopaedic content is associated with particular functional projections through the tags. In cases of predictable alternations (e.g. causative-inchoative alternation) the tagging on particular lexical items would miss an important generalization, and therefore the existence of zero morphology (for  $\nu$ ) needs to be assumed. The question is not restricted to so-called

<sup>&</sup>lt;sup>10</sup>This, obviously, is not tantamount to giving up the dichotomy between external and internal argument in the Subject vs Object sense. In the present work I am only preoccupied with Subjects.

substantive (open-class) items, but concerns also the nature of so-called port-manteau morphemes.

One possible approach to these is along the lines of Giorgi and Pianesi (1997), where a fusion of particular syntactic projections is taken as a lexical parameter (cf. also Bobaljik (1995) and Pylkkänen (2002)). The 'static fusion' approach à la Giorgi and Pianesi, however, faces a challenge whenever there occurs some other material, which splits the two purportedly fused heads. A different execution is presented in Borer (2005). Functional heads are taken to be open values to which range needs to be assigned by a variety of means. One of these means involves range assignment by a head feature (e.g. English <pst> Tense feature), which requires successive head movement of the lexical head to support it. Borer takes this head feature to be in a sense a-morphous (thus complying with the Word and Paradian view of morphology). Consequently, no zero-morphemes are assumed. Instead The Great Phonological Dispenser needs to return an output for the relevant structure. In that kind of system portmanteau morphemes are conceived of as double range assigners. Consider e.g. English indefinite article a. Borer assumes the existence of innate universal functional hierarchy - an assumption that I will share. Her nominal structure universally contains a Classifier Phrase (CLP) dominated by the Quantity Phrase (#P).

(44) 
$$[\#P < e>_d [CLP < e>_{DIV}]]$$

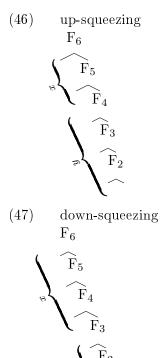
Open value  $\langle e \rangle_{DIV}$  can be assigned range by the head feature  $\langle Plural \rangle$ . Open value  $\langle e \rangle_d$  is assigned range by cardinals. Since singularity is not overtly marked on listenes in English, yet they are not interpreted as default mass, something must assign range to  $\langle e \rangle_{DIV}$ . Borer takes it to be a. Therefore, English a is taken to be a double range assigner: a divider, and a counter - an example of open value fusion.

Although the results that I aim to achieve in the present work, could probably also be restated in Borerian system, due to a controversial status of head movement in linguistic theory (cf. e.g. Matushansky (to appear)), I will adopt a different view of the lexicon. Instead, my way of conceiving of the lexicon is closest to the one presented in Williams (2003) and Starke (nanosyntax seminar), i.e. I assume that lexical items realize/ spell out subsequences of the universal functional hierarchy. This is the idea that I will often refer to under the rubric of lavish insertion. Lexical items are hierarchically structured bundles of features. How big a chunk of functional hierarchy is lexicalized by a particular item is essentially a lexical accident of a particular language. Furthermore, building on the ideas by Michal Starke, I will also assume that in certain circumstances a lexical item x can spell out a subset of the features that it lexicalizes. The relevant circumstances are when another lexical item y lexicalizes a part of the subsequence belonging

to x. Suppose the relevant lexical items are specified in the lexicon as:

(45) a. 
$$x: [F_6 ... F_4]$$
  
b.  $y: [F_4 ... F_2]$ 

In principle, there are two situations possible. I will refer to them as 'upsqueezing' (cf. (46)) and 'down-squeezing' (cf. (47)) respectively:



In principle, both of the scenarios are possible. The particular execution will have to depend on the way lexicalization algorithm works. E.g., if insertion is early, in a bottom-up derivation, only one head will be accessible, and therefore the most specific lexical items should be selected. If lexical insertion is late, however, all the syntactic heads in the relevant subsequence are already accessible, and hence there is a choice with respect to how specific items are chosen. Assuming that insertion algorithm is top-down, however, would result in the prediction that only down-squeezing is allowed. Since the cases discussed in this dissertation will in fact involve both scenarios in (46), as well as (47), I will assume that late insertion happens no earlier than when the highest projection in the thematic domain is merged (i.e. initP) and the insertion algorithm processes the whole tree simultaneously. In other words, in cases where two items in the Numeration have overlapping lexical specifications, as x and y above, all the possible insertion variants are tried, including the one with both items spelling out their full specifications, but

only the two combinations in (46) and (47) can be interpreted at the the interfaces. The insertion of both x and y causes the derivation to crash. Cases of up- and down-squeezing discussed in the present thesis include the following:

- one type of so-called thematic vowel, which I will label as Theme<sub>high</sub>, will be argued to be specified lexically as spelling out the subsequence starting from VP<sub>Become</sub> with transitional semantics including the whole hierarchy of light verbs. Yet, it will be pushed down by the Event Separator merged on top of it. The relevant conjugation class marker is illustrated in (48):
  - (48) Ten film mnie o-głup-**i**-ł. this movie me<sub>ACC</sub> pref-stupid-**TH**-pst.3sg 'This movie made me stupid.'

Abstractly speaking, let us say the lexical entry for a Theme<sub>high</sub> like -i- looks as in (49):

(49) -i-: 
$$[V, \nu_n, (\nu_{n+1} (, \nu_{n+2} (, \nu_{n+3} (, ...))))]$$

What the lexical specification in (49) implies is that the presence of -i-will always entail the structural presence of both the transitional and the processual subevents (i.e. VP and  $\nu_n^{-11}$  respectively) since these are the only obligatory elements of its lexical specification. However, as the present work pursues the idea of a very fine grained syntactic decomposition, where ultimately each functional head contributes only one feature in the semantics (an agenda pursued by Michal Starke and attributed to Richard Kayne), Ramchandian  $\nu$  will in fact be decomposed into multiple light verb projections. With the lexical specification in (49), the presence of the light verbs starting from  $\nu_{n+1}$  is contingent on the specification of other lexical items present in the Numeration.

- Event Separator i.e. participial/nominalizing morpheme -n/t- in Polish specified in the lexicon as lexicalizing the subsequence on top of the light verb, gets pushed upwards by the Theme<sub>high</sub> and that situation results in a variety of different constructions (cf. chapter 4), including Periphrastic Passive (in (50)), nominalization in -nie/cie (in (51)), as well as so-called Impersonal Passive (in (52)):
  - (50) Książka została prze-czyt-a-**n**-a przez Marka. book $_{NOM.f}$  become $_{pst.3sg.fem}$  pref-read-TH-**n**-f by Marek 'The book has been read by Marek.'

The reader will recall that  $\nu_n$  will be labelled  $\nu_{NEUT}$  as the argumentation unfolds. The present terminology is motivated by exposition-related reasons.

- (51) prze-czyt-a- $\mathbf{n}$ -ie książki pref-read-TH- $\mathbf{n}$ -ie book $_{GEN}$  'reading the book'
- (52) Prze-czyt-a-n-o książkę.
  pref-read-TH-n-o book<sub>ACC</sub>
  'There was book-reading/ Someone read the book.'

The lexical entry for the ES -n/t- in Polish<sup>12</sup> will turn out to be as in (53) (for the relevant fragment of the functional sequence<sup>13</sup>):

(53) -**n**/**t**-: 
$$[(\nu_{n+1} (,\nu_{n+2} (,\nu_{n+3},...))), \nu_m]$$

This particular lexical specification entails that the ES can attach as early as on top of  $\nu_n$ , but depending on the lexical specification of some other item, it might compromise its lexical specification to the effect that (some of the) higher light verbs will not be spelled out by it.

• the reflexive marker, which can undergo up-squezing in the presence of Theme<sub>high</sub> but can also compromise its upper boundary. The relevant configurations will involve different degrees of up-squezing of the reflexive clitic by the Theme<sub>high</sub> manifested in the following constructions: Mediopassive, Dative Reflexive Construction (DRC), Middle, as well as Impersonal Reflexive Construction (IRC).

Apart from these functional vocabulary items, the lexicon contains also substantive open-class items corresponding to Marantz's categoryless roots or 'stuff' (cf. Marantz (1997), e.g.  $\sqrt{cat}$ ,  $\sqrt{str}$  (as in destroy, construct), etc.) These function essentially as predicate modifiers, but in Polish they do not participate in syntax almost at all. The only exception is the case of a group of roots which get inserted into Ramchand's Result<sup>0</sup> (cf. section 2.2.4). In that sense the stand I take for Polish is closest to the Borerian system, where roots find themselves in a Lexical Domain (L-D), and only later on move outside of it. ROOT insertion is, however, taken here to be language-dependent. In other words, Polish is argued to display stem-building morphology specialized to spell out chunks of functional sequence. English, on the other hand, does not possess such functional items. In view of the non-existence of zero-morphology (see below), English verbs must in fact have lexical specification comparable to Polish Themes. This essentially obliterates the distinction

 $<sup>^{12}{\</sup>rm The~choice}$  of the allomorph -n- vs -t- is due to a complicated and not fully understood interaction of morphophonological factors.

<sup>&</sup>lt;sup>13</sup>The entry in (53) abstracts away from the adjectival passive use of -n/t- - cf. chapter 4 for more detailed discussion.

between functional vocabulary items and roots. This result is in fact corroborated by the existence of languages which posses only a very restricted number of verbal roots, and in this sense constitute a border case for the open- and closed-class distinction (one example is Kalam (cf. Pawley (to appear))).

One more thing that needs to be added with respect to lexical entries of Polish roots is that they contain information about the choice of the Theme. I will illustrate specific lexical entries as the argumentation unfolds (cf. chapter 2 in particular).

### Morpheme-based vs A-Morphous Morphology

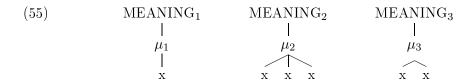
The approach presented here can essentially be considered a representative of a morpheme-based system, as opposed to the Word and Paradigm or amorphous systems of e.g. Anderson (1992) and Borer (2005). Let us then address at least two of the major problems that Anderson (2004) mentions with respect to morpheme-based systems:

- (i) circumfixes
- (ii) zero morphs

Anderson (2004), drawing on the Bloomfieldian definition of a morpheme as a 'linguistic form which bears no partial phonetic-semantic resemblance to any other form' (Bloomfield (1933:161)), pinpoints cases where the one-to-one relation between form and meaning is not preserved, i.e where one of the four claims is violated:

- (54) a. Each part of the content is linked to exactly one  $\mu$ .
  - b. Every X is linked to exactly one  $\mu$ .
  - c. Every  $\mu$  is linked to at least one X and to some part of the content.
  - d. None of the lines cross.

X is a segmental position,  $\mu$  a morpheme. Thus, an abstract representation of a lexical item in a morpheme-based system is in (55):



Consider now a purported example of circumfixation provided by Anderson, i.e. Indonesian *ke-bisa-an* ('capability'). According to Anderson (2004), this is an example of a violation of (54d), where the relation between the meaning level and the morpheme level results in line crossing. However, even the English gloss suggests that there are in fact three elements of meaning

present in *kebisaan*: (i) the meaning of the root; (ii) modality; (iii) the property of X (or: 'the property of (being able (to cope))). Since the word is tri-morphemic as well, there is at least some chance of avoiding the violation of (54d), although this would require a detailed analysis of the function of both the prefix and the suffix within Indonesian.

Similarly, Grzegorczykowa and Puzynina (1999:366) give the following examples of discontinuous morphology in Polish:

- (56) a. prefixal-suffixal: anty-państw-owy (anti-country-adj)
  - b. interfixal-suffixal: cudz-o-ziemi-ec (foreign-o-land-er, 'foreigner')
  - c. prefixal-postfixal: na-jeść sie (na-eat refl, 'eat to satiation')

As far as (56a) is concerned, however, it has to be observed that distributionally speaking both the prefix and the suffix do not display any mutual dependence and can occur in the absence of the other: anty- is a known Greek-derived prefix present also in other languages (e.g. anty-semita ('anti-Semite'), anty-faszysta ('anti-fascist')), and -owy <sup>14</sup> is an adjectivizing morpheme (as in e.g. dom-owy ('home-adj'), pro-państw-owy (pro-country-adj)). Clearly, the meaning component contributed by the prefix in (56a) is distinct from the meaning component of the suffix.

Similar remarks apply to (56b): -o- is a compound forming element, which is totally independent of the agentive noun-deriving suffix -ec (cf. żyw-o-płot (alive-o-fence, 'hedge'), północn-o-wschodni (northern-o-east, 'northeaster')).

Finally, turning to (56c), in section 3.1 I will offer a proposal to derive the mutual interdependence of certain types of prefixes and the reflexive clitic, whereby the reflexive clitic is a licensing mechanism enabling identification of the Resultee in Spec, RP (a projection whose morphological exponent is a prefix) with an Initiator (cf. specifically the structure in (99), section 3.1)<sup>15</sup>. It emerges from the preceding discussion that (57) is an important property of lavish insertion:

#### (57) Lavish insertion applies to contiguous heads.

(57) results not only in the non-existence of circumfixation, but it also has specific consequences for the nature of lexical entries. To wit, the functional heads that are optional in a given lexical entry (cf. e.g. (59)) also have to be continuous strings of  $f_{seq}$ . In the specific example of  $-\mathbf{n}/\mathbf{t}$ - it is impossible

 $<sup>^{14}</sup>$ In fact, it is -ow-y (adj-sg.m).

<sup>&</sup>lt;sup>15</sup>This is not to be taken as implying that the prefix in (56c) is necessarily in R<sup>0</sup>. This issue needs to be thouroughly investigated. If it happens to be located in some higher projection, the relevant identification will involve the subject of this projection and Initiator. The point in the text should be taken as an example of a general strategy to explain away purported cases of circumfixation.

to have both  $\nu_{n+1}$  and  $\nu_{n+3}$  optional, but  $\nu_{n+2}$  obligatory. Such an entry would entail that the item would have to be inserted violating (57).

One more point that needs to be explained is the question under which circumstances is up- or down-squeezing allowed.  $Prima\ facie$  it might seem that squeezing should be only allowed as a Last Resort option, i.e. to avoid a crashing derivation in cases where lexical specifications overlap. Consider the interaction between the Theme<sub>high</sub> and Event Separator with lexical entries repeated in (58) and (59) respectively.

(58) -i-: 
$$[V, \nu_n (,\nu_{n+1} (,\nu_{n+2} (,\nu_{n+3} (,...))))]$$

(59) -**n**/**t**-: 
$$[(\nu_{n+1} (,\nu_{n+2} (,\nu_{n+3},...,))) \nu_m]$$

(60) a. 
$$[V, \nu_n, \nu_{n+1}, \nu_{n+2}, \nu_{n+3}, \dots, \nu_{n+m}]$$

$$\vdash i \vdash \vdash \vdash n/t \vdash$$

b. 
$$[V, \nu_n, \nu_{n+1}, \nu_{n+2}, \nu_{n+3}, \dots, \nu_{n+m}]$$

c. 
$$[V, \nu_n, \nu_{n+1}, \nu_{n+2}, \nu_{n+3}, \dots, \nu_{n+m}]$$

d. 
$$[V, \nu_n, \nu_{n+1}, \nu_{n+2}, \nu_{n+3}, \dots, \nu_{n+m}]$$
 $i \longrightarrow h \cap h$ 

e. \*[V, 
$$\nu_n$$
,  $\nu_{n+1}$ ,  $\nu_{n+3}$ , ...,  $\nu_{n+m}$ ]

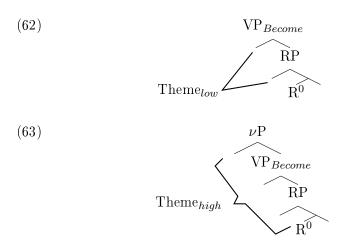
All of (60) will be converging derivations except for (60e), where Theme<sub>high</sub> compromised its upper hierarchy by not spelling out  $\nu_{n+2}$  and  $\nu_{n+3}$ , whereas Event Separator compromised its lower boundary by not spelling out  $\nu_{n+2}$ . In this scenario there is no item which would lexicalize  $\nu_{n+2}$ , and therefore the derivation crashes. This might suggest that squeezing should be prohobited when there is no need for it. The data analysed in the present work, however, specifically the constructions involving the reflexive morphology, seem to suggest that squeezing is in fact optional. I will therefore adopt the latter assumption, and rule out (60e) as a violation of the general constraint in (61):

- (61) Every (nonoptional) functional projection in a universal functional sequence must have a morphological exponent.
- (61) makes sure that no 'wholes' are allowed in  $f_{seq}$ , but crucially it does not apply to optional projections as RP, VP, or the light verb system. As the

lexical specification of Theme $_{high}$  guarantees that the first of the light verbs has to be present in its spell out, all of the higher ones must also be present, no matter which element will spell them out.

#### Lavish insertion vs zero morphology

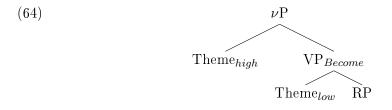
Thus, incorporating a modified Ramchandian  $\nu$ -V-R sequence, I will posit the presence of so-called thematic vowels/ conjugation class markers in Polish filling up the verbal functional sequence. These will fall into two types: Theme<sub>high</sub> and Theme<sub>low</sub>, depending on how big a subsequence they lexicalize. I illustrate the two lexicalization options below<sup>16</sup>:



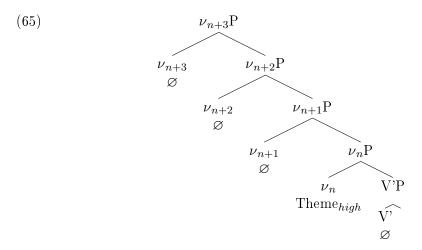
I will argue in chapter 2 that the low Themes in (62) are lexically specified as spelling out no more than up until  $VP_{Become}$  projection. That is why they will define a group of verbs which is in a certain sense unaccusative. High Themes in (63), on the other hand, will be argued to lexicalize more structure, including the light verb.  $\nu$  in (63) should be taken as an abstraction over the whole hierarchy of light verbs.

One might obviously think of a more traditional way of lexicalizing in a by hypothesis fine-grained syntactic structure, i.e. zero morphology as exponents of the multiple functional heads. Compare the type of lexicalization in (62) and (63) to a traditional way, where the two types of thematic vowels would simply be morphological exponents of different functional projections, as in (64):

 $<sup>^{16}\</sup>mathrm{The~reason}$  why Theme $_{low}$  is represented as lavishly inserted, although only one projection is present, is to allow for potential heads located between RP and VP. As in the present thesis I am concerned with verbal argument structure, I do not analyse these cases.



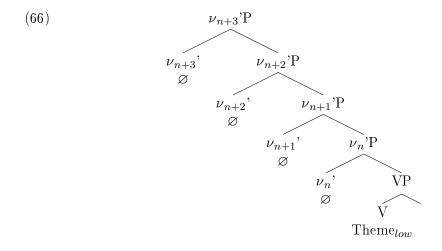
Let us in fact consider somewhat prematurely the fragment of the  $f_{seq}$  that I will propose consisiting of five different functional heads:  $\nu_{n+3} > \nu_{n+2} > \nu_{n+1} > \nu_n > V$ . A plausible hypothesis is that Theme<sub>high</sub> is an exponent of the first light verb  $(\nu_n)$  introducing a causing subevent (for the argumentation to the effect that the presence of Theme<sub>high</sub> correlates with the presence of the processual causing subevent cf. chapter 2). This particular  $\nu_n$  selects for a particular 'flavor' of V, let us call it V', whose morphological exponent is  $\varnothing$  (the root, by assumption, never lexicalizes V). This selection property is necessary since the cooccurrence of the two Themes (as in (64)) is excluded. Furthermore, in view of the lack of any other morphology, all the remaining light verb projections need to be morphologically  $\varnothing$ . The structure would thus look as in (65):



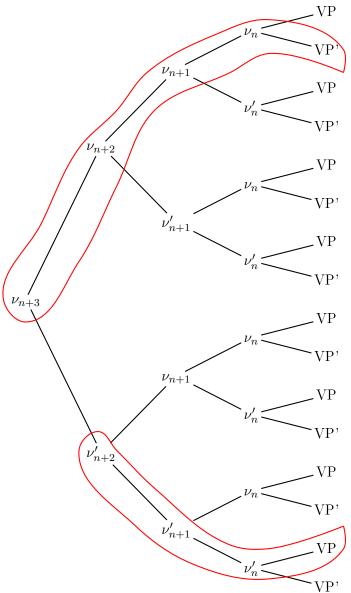
Theme<sub>low</sub>, on the other hand, will be argued to contribute transitional semantics, and thus would be a plausible candidate for lexicalizing V in the more traditional system, where morphemes are inserted in terminal nodes. This particular V is always selected by a special 'flavor' of the light verb, which is not only morphologically, but also semantically empty. Let us label these projections  $\nu_{n+x}$ '. Abstractly speaking, they are similar in function to Event Separators: they correspond to the effective lack of the light verb system<sup>17</sup>. Projecting these heads, however, is a good way of visualizing the general challenges that the zero morphology system faces. The hypothetical

<sup>&</sup>lt;sup>17</sup>They cannot be ES -n/t- however, as -n/t- cannot lexicalize  $\nu_n$ , as shown in (59).

structure of the verb involving a Themelow would be as in (66):



Given a relatively big number of heads, these special selectional requirements result in an overgenerating system since the number of possibilities grows exponentially with the number of heads (i.e.  $2^X$ ) (Michal Starke, nanosyntax seminar). If each of only three light verb projections, as well as V, has two different 'flavors': X and X', then the number of possible derivations grows to 16, out of which only two are in fact attested. This is shown in (67) with the attested derivations encircled.



The problem naturally disappears in a system with *lavish insertion* since Theme<sub>high</sub> is lexically specified as in (49). Theme<sub>low</sub>, on the other hand, has a lexical specification as in (67):

# (67) Theme $_{low}$ : [V]

In this kind of system no reference to 'flavors' of particular projections is required, nor any morphologically null exponents of syntactic heads. There exists, however, an alternative way to conceive of a lexical entry for Theme<sub>low</sub>, where reference to 'flavors' of heads is unavoidable:

(68) **Theme**<sub>low</sub>: [V, 
$$\nu_n$$
',  $\nu_{n+1}$ ',  $\nu_{n+2}$ ',  $\nu_{n+3}$ ']

Specifying the light verb hierarchy as  $\nu_{n+x}$ ' is necessary in this case, since no traces of the semantics of the light verb system are attested with Theme<sub>low</sub>. The entry in (68) avoids the problem that (67) poses, i.e.: why is it impossible to merge Theme<sub>high</sub> on top of Theme<sub>low</sub>, as in (69):

(69) 
$$\begin{bmatrix} v_{P} & [\nu_{n+1P} & [\nu_{n+2P} & [\nu_{n+3P} & ]]] \end{bmatrix}$$
Theme<sub>low</sub> 
$$\longrightarrow Theme_{high} \longrightarrow$$

Having both: fine-grained syntactic structure, as well as reference to 'flavors' is undesirable as it results in too powerful a system. Therefore, we seem to be forced to adopt the lexical specification in (68). Since the negative content of the light verb system will not have any syntactic or semantic effects, however, in the remaining part of this work these heads will not be represented with Theme<sub>low</sub>.

Fortunately, nothing more needs to be said about the mutual exclusion of Theme<sub>high</sub> and Theme<sub>low</sub> since the lexical specification of the former in (49) already makes clear that the lower boundary of the item cannot be compromised (i.e. V is a feature *obligatorily* present on Theme<sub>high</sub>). In other words, Theme<sub>high</sub> cannot be up-squeezed. This property, being a lexical accident of Polish, in fact differentiates between the language in question and languages which possess so-called 'inner' Causatives (e.g. Amharic, Hindi/Urdu, and many others). The Causative morphemes would be items whose lower boundary is specified as  $\nu_n$ .

### Polysemy in a system with lavish insertion

Finally, lavish insertion system has a natural potential to account for notorious cases which, depending on the viewpoint, can be conceived of as either polysemy or syncretism or portmanteau morphology. Consider the reflexive clitic in Greek as an example:

- (70) a. Afto to vivlio dhiavas-tik-e xtes. Greek this the book.NOM read-NACT-3S yesterday 'This book was read yesterday.'
  - I Maria xtenize-te kathe mera.
     the M.NOM comb-NACT.3S every day
     'Maria combs herself every day.' McGinnis (1999:(32))
  - c. tsakizo-me (break-NACT)(intr.), tsakizo (tr.) ('break') keo-me (burn-NACT)(intr.), keo (tr.) ('burn') singendrono-me (gather-NACT)(intr.), singendrono (tr.) 'gather'

Haspelmath (1993)

The same morphology (labelled NACT) is used in all the three cases: Passive in (70a), Reflexive in (70b) and anticausative in (70c). As pointed out by Embick (1998), this cannot be a case of accidental homophony between pas-

sives (in (70a)), inherent reflexives (in (70b)) and unaccusatives ((70c)) since then it would have to be stipulated for each affix separately, and for a wide range of languages, including Polish in fact. Therefore, the only conclusion available is that the particular constructions in (70) must share a morphosyntactic context. On this point both lavish insertion, as well as Distributed Morphology (cf. Halle and Marantz (1993)) systems converge. However, the way Distributed Morphology accounts try to capture the syncretism in (70) is by means of the notion Underspecification. E.g. in McGinnis (1999), the environment for the insertion of the reflexive morphology is specified negatively: active morphology can be inserted into  $\nu$  if and only if there is an argument with a full phi-feature specification in the (appropriate) Specifier of  $\nu P$ . The nonactive (i.e. reflexive) morphology, being default, is inserted in all the remaining cases: (i) in unaccusative contexts, which lack both external argument and causative semantics; (ii) in passive contexts, which retain causative semantics but lack an external argument; (iii) in reflexive constructions, which do possess an external argument, albeit not specified for phi-features 18. Thus, this type of account requires resort to not only intrinsic features of the head for insertion of Vocabulary items, but also socalled contextual features (cf. Nover (1997)). It remains a mystery, however, why certain Vocabulary items should require reference to the latter features, as well as what the actual locality domain for contextual feature reference is. Is it only a Specifier-head relation or somewhat bigger than that? Abstracting away also from the problem of multiple flavors of  $\nu$  that McGinnis' account seems to require (i.e. not only [+/-ACC], but also [+/-agentive] for (non)deponent verbs, as well as some additional feature distinguishing unaccusative from passive  $\nu$ ), there exists a more serious problem related to the general difficulty with specifying common morphosyntactic context for all the uses. Polish can serve as a good example of this particular point. Although Polish reflexive morphology is involved in all the constructions mentioned above with respect to Greek, it is also involved in the construction which I will label as Dative Reflexive Construction (henceforth, DRC). The relevant paradigm is presented in (71):

(71) a. Marta myje się.
 Marta<sub>NOM</sub> wash<sub>3sg.pres</sub> refl
 'Marta washes.'
b. łamać się (intr.), łamać (tr.) ('break')
 palić się (intr.), palić (tr.) ('burn')
 zbierać się (intr.), zbierać (tr.) ('gather')

<sup>&</sup>lt;sup>18</sup>The external argument is taken to be the reflexive clitic or to be nonovert, depending on the language. The reader is referred to section 3.1 for the argument to the effect that the type of evidence usually invoked does not justify identification of the reflexive clitic with the external argument.

c. Trudno mi się rozmawiało z szefem. Hard me $_{DAT}$  refl talk $_{3sg.neut.pst}$  with boss 'It was hard for me to talk to the boss.'

It is (71c) that is interesting from our perspective since it clearly displays an Agent, albeit in the somewhat unusual Dative case. It also does not seem to be right to claim that this argument is underspecified for phi-features in any sense comparable to the reflexive clitic, especially in view of its semantic interpretation [1sg]<sup>19</sup>.

Thus, in view of the existence of DRC, it becomes increasingly hard to actually define the morphosyntactic context for the insertion of nonactive morphology. As I will argue in chapter 5, the *lavish insertion* system has a natural advantage over the traditional one in this particular respect. In other words, it is not any contextual features of adjacent heads that result in the presence of the reflexive, but rather the same lexical item spelling out subsequences of functional projections, with the differences between particular constructions stemming from the reflexive clitic being up-squeezed.

One more point indicating that the *lavish insertion* might be better equipped to cope with the cases of portmanteaux is the fact that very often particular morphemes contribute multiple meaning components. In this sense, the situation reminds Anderson's (2004) justified concern about the one-to-one relation inherent in the Bloomfieldian definition of a morpheme. Instead of Anderson's many-to-many system, however, *lavish insertion* offers a natural way to account for all the one-to-many scenarios, i.e. cases where one morpheme contributes several syntactico-semantic features (cf. the discussion above and in particular (57) on why the reverse situation, i.e. several morhemes expressing one feature, is not a possible scenario). The reflexive morphology is not an exception in this respect. Firstly, in a lot of languages, it also contributes a certain Modal component (cf. e.g. Bhatt (2000) and Lekakou (2004)). I illustrate with Polish DRC in (72):

(72) Dobrze mi się spało.
well me<sub>DAT</sub> refl sleep<sub>3sg.neut.pst</sub>
'I was able to sleep well.' OR
'It was possible for me to sleep well.'

<sup>&</sup>lt;sup>19</sup>Admittedly, the argument does not trigger verb agreement. Yet, at least Number feature is in fact visible syntactically in the agreement on the depictive predicate:

<sup>(</sup>i) a. Trudno mi się rozmawia nagim/\*nagimi. hard me $_{DAT}$  refl talk $_{3sg.pres}$  naked $_{sg.m.INSTR}$ /\*naked $_{pl.INSTR}$  'It is hard for me to talk naked.'

b. Trudno nam się rozmawia nagimi/\*nagim. hard  $us_{DAT}$  refl  $talk_{3sg.pres}$  naked $_{pl.INSTR}$ /\*naked $_{sg.m.INSTR}$  'It is hard for us to talk naked.'

Secondly, in other languages it can also contribute the desiderative component, as e.g. in Bulgarian (73):

(73) Ne mi se spi. Bulgarian neg me $_{DAT}$  refl sleep $_{3sg.pres}$  'I don't feel like sleeping.'

Although I will leave the question of Modality and desiderativity open in this thesis, it seems that the system with *lavish insertion* can relatively easily be employed to account for these cases.

Finally, one more advantage of *lavish insertion* over traditional systems relates to the mutual exclusion patterns, and can again be best illustrated with the reflexive morphology. To wit, in cases where the semantics dictates the use of two reflexive clitics, one of them is usually dropped, as in (74):

- (74) a. Trudno mi się czesze tym grzebieniem. hard  $\text{me}_{DAT}$  refl  $\text{comb}_{3sg.pres}$  this $_{INSTR}$   $\text{comb}_{INSTR}$  'It is hard for me to comb with this comb.'
  - b. Niechcący mi się przewróciło. unwillingly  $me_{DAT}$  refl overturn $_{3sg.neut.pst}$  'I overturned accidentally.'

Both (74a) and (74b) exemplify DRC, as indicated by the presence of the Dative argument. Furthermore, the verb in (74a) is an inherent reflexive (i.e. interpreted as: X combs X), and the one in (74b) is an anticausative (sometimes labelled *inchoative*) also necessarily marked with the reflexive clitic. Yet, in both of the sentences only one reflexive marker is allowed. This curious phenomenon usually gets relegated to some surface phonological constraint as haplology, prohibiting overt expression of two homophonous items. In the *lavish insertion* system no recourse to phonological component needs to be made, as the two uses of the reflexive are in fact one and the same lexical item spelling out different subsequences of its lexical specification.

Summarizing the discussion in this section, I have presented the view of the lexicon assumed in the present work, whereby functional vocabulary items do not necessarily get inserted into terminals, although this is still an option for items specialized to lexicalize just one feature. In the present system morphemes can lexicalize subsequences of a universal functional sequence, and no language-specific fusion of heads is assumed. At the same time, the lexical specification of morphemes provides information with respect to the degree of flexibility of a particular item. In other words, the lexical entry of an item X specifies how much of it can be up- or down-squeezed. Compromising lexical specification of a particular item, however, is restricted by the constraint in (57), and in this way does not deprive the system of the predictive power.

I have compared the lavish insertion system to a-morphous morphology, and concluded that Anderson's (2004) many-to-many system is not necessary, since the situation where several morphemes would be associated with just one syntactico-semantic feature never arises, given that circumfixation can be explained away<sup>20</sup>. In turn, if many-to-many system is in fact overgenerating, a more restrictive one-to-many system is to be preferred. Furthermore, the existence of non-concatenating morphology of the sing-sang type - a major fault that realizational morphological frameworks find with morpheme-based approaches - disappears in the lavish insertion system. A lexical item sang is not decomposable into SING +  $\varnothing_{T-past}$ , but rather lexically specified as spelling out the whole hierarchy including the functional projection responsible for its past tense interpretation.

Furthermore, I have compared the lavish insertion system to the traditional system with zero-morphemes and argued that, given a fine-grained universal  $f_{seq}$ , the latter system runs into selectional problems, and in turn overgenerates the number of possibilities. Finally, I have argued for the following advantages of lavish insertion over traditional systems:

- an inherent potential to account for polysemy/syncretism of morphemes without a resort to DM notion of *Underspecification* or *contextual features*;
- an inherent potential to account for portmanteaux without head movement:
- an inherent potential to account for mutual exclusion patterns without recourse to haplology.

### 1.3 The $\Theta$ -Criterion

The assumption underlying the present work that needs to be spelled out explicitly is that the  $\Theta$ -Criterion should be discarded. As noted in Hornstein (1999), the  $\Theta$ -Criterion, inherited from the GB package of assumptions, is incompatible with the Minimalist rejection of D-Structure (starting from Chomsky (1995b)). Thus, the  $\Theta$ -Criterion constrains (A-)chains to possess only one  $\Theta$ -position, and exactly at the foot of the chain. In Chomsky (1995b) this central feature of D-Structure is restated as restricting  $\Theta$ -assignment to trivial chains. Hornstein (1999) argues that within the specific domain of control, rejecting the  $\Theta$ -Criterion is really a null hypothesis.

<sup>&</sup>lt;sup>20</sup>I could not possibly achieve this goal in the present thesis. Hence, the non-existence of circumfixation has to be taken as an assumption. Similarly, infixation needs to be taken as the case of surface phonological subcategorization pending other (i.e. syntactic) evidence to the contrary.

Thus, firstly, the distinction between raising and control multiplies the inventory of empty categories. Secondly, certain theoretical problems arise in relation to both (i) the distribution of PRO and (ii) its interpretation. In GB the former was handled by the binding theory, i.e. PRO was taken to be a 'pronominal anaphor' and hence subject to contradictory binding requirements within its governing domain. Therefore, PRO was forced to occur only in ungoverned positions. This account is hardly implementable under current Minimalist assumptions, since the notion of 'government' ceased to be a primitive. Hence, Chomsky and Lasnik (1993) propose the 'null' Case theory of PRO. As argued by Hornstein, this account of Case properties of PRO is tailored exactly to fit the facts, and hence amounts to a stipulation. Faced with these theoretical inelegancies, Hornstein (1999) proposes to treat Θ-roles as features that drive movement, and thus to reduce so-called Obligatory Control (henceforth, OC, cf. Williams (1980)) to movement from one Θ-position to another. The properties of OC are illustrated in (75):

- (75) a. \*It was expected PRO to shave himself.
  - b. \*John thinks that it was expected PRO to shave himself.
  - c. \*John's campaign expects PRO to shave himself.
  - d. John expects PRO to win and Bill does too. (= Bill win)
  - e. \*John<sub>i</sub> told Mary<sub>i</sub> to wash themselves/each other<sub>i+j</sub>.
  - f. Only Churchill remembers PRO giving the BST speech.

(Hornstein, 1999:(4))

(75a) shows that OC PRO must have an antecedent, (75b) - that the antecedent must be local. (75c) indicates that the antecedent has to c-command PRO. In (75d), the reading can only be sloppy. (75e) illustrates the fact that OC PRO disallows split antecedents. In (75f), only (76a), but not (76b), is the allowed interpretation:

- (76) a. Only Churchill remembers himself giving the BST speech.
  - b. Only Churchill remembers that he gave the BST speech.

All of these properties are argued in Hornstein (1999) to follow under the movement theory of OC.

Furthermore, Case-theoretic account of PRO requires an elaborated PRO module relating to the possible interpretation of PRO that makes use of The Minimal Distance Principle. MDP accounts for quite a robust generalization that when the matrix verb has only one argument, the Subject controls PRO, but when it takes two arguments, Object control arises.

- (77) a. John wants to leave.
  - b. John told Mary to leave.

Hornstein observes that MDP bears a striking resemblance to Relativized Minimality/ Minimal Link Condition (Rizzi (1990), Chomsky (1995a)) and hence it would be conceptually desirable to collapse the two. Thus, a movement derivation for object control predicate (in (77b)) à la Hornstein (1999) is illustrated in (78):

(78)  $[_{\text{IP}_2} \text{ John } [_{\text{I}^0} \text{ past } [_{\text{VP}_3} \text{ John } \nu + \text{told } [_{\text{VP}_2} \text{ Mary told } [_{\text{IP}_1} \text{ Mary } [_{\text{to}} [_{\text{VP}_1} \text{ leave Mary }]]]]]]]$ 

The next point concerns Nonobligatory Control PRO, which contrasts with OC PRO in all the relevant respects illustrated in (75). Hornstein (1999) argues that in these cases PRO has all the characteristics of pronominals and therefore should be analysed as involving *pro*. In section 4.2, 4.3 and 5.4 I will discuss other structures involving *pro*, to wit, Impersonal Passives, nominalizations, as well as Impersonal reflexive constructions.

Although Control structures will not be analysed in this work for space reasons, it is hoped that the architecture arrived at will be naturally extendable to Control verbs. Thus, e.g. if OC verbs are really lexical restructuring predicates in the sense of Wurmbrand (2000), we might expect that a given restructuring property (e.g. long passive) imposes a particular restriction on the size of the complement. Now, that fact squares nicely with a surprising property of OC verbs, i.e. the fact that they show animacy requirement with respect to their Subjects. In fact, this particular property is normally taken as evidence in favor of their lexical (as opposed to functional) nature.

- (79) a. John/\*The storm tried to break the window.
  - b. John/\*The storm forgot to destroy the crops.
  - c. John/\*The knife didn't even dare to cut the bread.

Obviously, the particular restriction might be argued to come from the semantics of the relevant verb. Yet, it remains a puzzling property of Obligatory control that all the relevant verbs should have that particular semantics. In that sense, the animacy requirement remains an accidental lexical selectional requirement. Now, one of the major purposes of the present work is to propose multiple external argument positions. The highest projection for the external argument - INITIATOR-P can host arguments not specified with respect to control/volitionality/animacy, another one -  $\nu_{DIR}$ P - restricts the denotation of its argument to animate Agents in control of the eventuality denoted by the root. I will claim in section 3.1.4 that they occupy radically different places in a functional sequence:

(80) 
$$[I_{\text{InitiatorP}} \text{ DP } [F_{\text{P}} \text{ } ... \text{ } [\nu_{DIRP} \text{ DP} [+\text{animate}] ]]]]$$

Assuming that lexical restructuring verbs can in fact only take a complement big enough to include  $\nu_{DIR}$ P, but not InitiatorP, this type of configuration

might in fact derive the animacy requirement on OC verbs. The configuration in (80) might be conceived of as a Hornsteinian movement from one  $\Theta$ -position to another. Yet, if every external argument were to transit through the Specifier of  $\nu_{DIR}$ P on its way to Initiator P, then we would expect to see only animate external arguments - obviously an undesirable result. One might postulate that  $\nu_{DIR}$  is an optional part of  $f_{seq}$ . That assumption, however, begs the question which parts of  $f_{seq}$  and under what circumstances can be missing. In this dissertation I will present cases to the effect that if only the first of the light verbs is present, none of the higher ones can be missing. Thus, considering the fact that the two lowest verbal projections:  $VP_{Become}$  and RP are also regularly optional, the following universal thematic domain would emerge<sup>21</sup>:

(81) 
$$(R^0) > (V^0_{Become}) > (\nu_1^0 > \nu_2^0 > ... > \nu_m^0) > (init^0)$$

In order, however, to circumvent the problem of the lack of animacy restrictions on the Subjects of active clauses, I will assume that some external arguments can be introduced directly in initP, without any previous peeling (cf. section 1.7 below) whereas others are introduced via the light verb system, where the final position of the argument is reflected in its feature specification (e.g. animate, human, etc.). Thus, the independent nature of initP with respect to the light verb system is also reflected in a different label. On the other hand, in cases where the argument does not travel via the light verb system, it must be assumed that the  $\Theta$ -features on the light verbs are absent, as otherwise uninterpretable  $\Theta$ -features would lead to a crashing derivation. Furthermore, the mutual interdependence of all the projections in the light verb system is reflected in the fact that if only the first one of the light verb projections spelled out by the Theme has a  $\Theta$ -feature, all the remaining ones must also have one.

A part of this work is devoted to a configuration parallel to Control structures, i.e. Dative Reflexive Construction, where a particular lexicalization scenario (i.e. reflexive clitic spelling out initP) results in the obligatory movement of the Dative argument to the Specifier of  $\nu_{DIR}$ P, and, similarly to Control structures, yields animacy requirement.

# 1.4 Deconstructing split intransitivity

The purpose of this section is to show that the so-called 'split intransitivity', which has figured prominently in the literature, starting from *The Unaccusativity Hypothesis* (Perlmutter (1978), Burzio (1986)) should be decon-

 $<sup>^{21}</sup>$ RP is regularly missing with all Polish verbs which are not lexically prefixed. In section 1.1 I assumed also that  $V_{Become}$  is missing in unergative structures (cf. also section 2.2.2 for lexical entries).

structed to correlate with the very fine-grained syntactic decomposition. In fact, operating within the dichotomy unaccusative vs unergative (or internal vs external argument) is rather misleading, and has lead to many conflicting conclusions in the literature based on premises that are very different in nature<sup>22</sup>. These conflicts, most conspicuous in the form of so-called 'unaccusativity mismatches', could be resolved once it is acknowledged that each functional projection in an elaborated functional sequence opens up a possibility of a new diagnostic. This way, different verbs might show what from a dichotomy point of view looks like a 'mixed behavior'. The degree to which certain verbs seem 'unaccusative' would thus be conversely proportionate to the number of functional heads involved in their derivation<sup>23</sup>.

Even more misleadingly, some researchers are talking about 'derived unaccusatives', conceiving of 'unaccusativity' as a notion broader than the aforementioned distinction between predicates having and not having an external argument. This concept of 'unaccusativity' has probably been inherited from the initial observations in e.g. Burzio (1986) to the effect that 'unaccusative' verbs do not assign ACC Case. Thus, the definition of unaccusativity comprises also passives and middles. Although it keeps the very label 'unaccusative' contentive<sup>24</sup>, it results in an even greater confusion with respect to what the common denominator of all of these verbs is.

For the sake of the argument, let us simply examine some of the classic unaccusativity diagnostics enumerated in Alexiadou et al. (2004).

#### 1. Auxiliary selection.

This is standardly taken as an unaccusativity diagnostic, i.e. unergative and transitive verbs take an auxiliary HAVE, whereas unaccusative verbs take BE. (82) is from French:

- (82) a. Marie **est** arrivée en retard. French 'Marie arrived late.'
  - b. Marie a dansé.Marie has danced.

It is not clear, however, what this is indicative of in view of the fact that English and Spanish use HAVE with both types of verbs. Worse

<sup>&</sup>lt;sup>22</sup>This does not mean that the distinction is unnecessary, only that it is insufficient.

<sup>&</sup>lt;sup>23</sup>This is a slight simplification, though. Certain diagnostics might in fact turn out to be ruled out if they are incompatible with the requirements of some functional head. Some examples will be discovered as the argumentation unfolds, e.g. the semelfactive light verb is incompatible with the semantic requirements of Secondary Imperfective (cf. section 2.2.8).

 $<sup>^{24}</sup>$ In fact, a strict execution of this way of conceving of 'unaccusativity' might lead to the inclusion of unergative verbs as well, and more generally all structures where no object in ACC case is present.

still, there are languages (e.g. a dialect of Cori (Italian) described in Kayne (1993)) where Auxiliary selection is contingent on the  $\phi$ -features of the Subject (i.e. 1,2 vs 3 Person) or on the definiteness status of the Subject (as e.g. in Sardinian, cf. Jones (1993)).

#### 2. Possibility to appear in resultative constructions.

One sees the claim in the literature (cf. *inter alia* Levin and Rappaport (1995)) that Resultative phrases can only be predicated of objects of transitive or subjects of unaccusative verbs. The relevant contrast is in (83):

- (83) a. \*Dora shouted hoarse.
  - b. The bottle broke open.

(Alexiadou et al., 2004:(15bc))

On this basis it is concluded that 'break' in English is an unaccusative verb. With the findings from section 1.1 under our belt, we can now see quite clearly what the relevant test tests for. If Resultatives are complements to RP (cf. Folli and Ramchand (2001) for the justification of the relevant claim), that means that the presence of RP is implied in (83b). Since RP possesses an EPP feature (or requires a Subject to be predicated of), that means that the sole argument will have to start out as a RESULTEE. Moreover, on Ramchand's assumptions it will have to raise to check the EPP of VP. I will furthermore argue in section 3.1 that quite plausibly, the same argument also raises to the specifier of the external argument introducing head (although this is in fact Initiator P, not  $\nu$ P on my account). Now, that means that the resultative test in fact only diagnoses the initial position of the argument, but has nothing to say about the fate of this argument as the derivation proceeds. That is to say, resultative test is one of the diagnostics that does not rely on the absence of external thematic role, though in principle there might be other diagnostics for which this property is criterial (e.g. Impersonal Passive in Polish).

#### 3. Prenominal perfect/passive participles.

Participles of transitive verbs can occur as attributive predicates of the nouns corresponding to their direct objects. The same is possible with unaccusative verbs, but ungrammatical with unergative ones (cf. Williams (1981), Hoekstra (1984), Grimshaw (1990), Zaenen (1993)). The relevant contrast is illustrated in (84) for German:

(84) a. der geküßte Student the kissed student German

- b. \*der gearbeitete Student the worked student
- c. der eingeschlafene Student the fallen.asleep student

One might try to run this diagnostic in Polish. The results are presented in (85):

- (85) a. bi-t-y student Polish beat-prt-masc student
  - b. \*pracowa-n-y student work-prt-masc student
  - c. \*zmar-t-y student die-prt-masc student

The transitive and the unergative verb in (85a) and (85b) pattern as in German. However, the result for Polish 'die' (which semantically speaking seems to be a good candidate for an unaccusative) is unexpected. One might conclude on the basis of that test that Polish zemrzeć ('die') is unergative. Yet, that seems to be in conflict with the results of other tests, e.g. it is ungrammatical in the Impersonal Passive, as shown in (86).

(86) \*Zmar-t-o. die-prt-o intended: 'There was dying.'

On closer examination it turns out that there are two different participles involved in German (85a) and (85c). Although German does not distinguish morphologically between the two, Polish does. The one that has been subjected to the test in (86) is a passive participle in -n/t. But there is also an active one in -t-, which, identically to the German case, is possible with unaccusative verbs:

(87) zmar-ł-y student Polish die-prt-sg.m student

If an external argument is not available within a passive participial projection<sup>25</sup>, as I will in fact argue in section 4.3, then ungrammaticality of (85b) is not surprising. The difference between (85a) and (85c),

 $<sup>^{25}</sup>$ i.e., putting aside an optional by-phrase

however, requires making a distinction on a more fine-grained level, i.e. the distinction between objects of transitive verbs and arguments of unaccusatives. If the passive -n/t- and the resultative -t- participial morphology instantiates different projections in  $f_{seq}$ , or, to adjust the terminology slightly, both have different lexical specifications, then for some reason the passive participial one cannot attach to unaccusatives. The negative requirement cannot be reduced to the lack of transitivity since at the level where the passive participial morphology attaches, it can have no knowledge about the future fate of the derivation, i.e. whether the external argument is going to be introduced or not (cf. chapter 4 for more on that point). In section 4.3 I will argue that the participial morphology in -n/t- requires the presence of the first light verb shell, i.e.  $\nu_n$  (cf. also the lexical specification in (59), section 1.2). The same requirement is apparently not an issue with active resultative participles in -t-.

#### 4. ne/en-cliticization

Even this test, traditionally considered to be uncontroversial, turns out to be more complicated than normally assumed. Thus, it is claimed that in languages which have the relevant test, subextraction out of an internal argument is possible, as opposed to subextraction out of an external one. I illustrate with Italian:

- (88) a. Giovanni ne ha insultati due. *Italian*John of them has insulted two
  - b. Ne arrivano molti. of.them arrive many
  - c. \*ne telefonano molti of.them telephone many (Alexiadou et al., 2004:(17-18))

Unfortunately, it seems that the tenet concerning ne/en-cliticization out of VP-internal position only requires additional qualifications. Thus, e.g. Bentley (2004), following Lonzi (1986), provides examples of ne-cliticization in Italian out of verbs that take an auxiliary HAVE, and hence seem to be unergatives:

- (89) a. Non ne trilla forte nessuna (di sveglie). Italian neg NE ring $_{3sg}$  loud none (of alarm.clocks) 'Of them ring loud none (of alarm clocks).'
  - b. Ne telefonano di tifosi la domenica! NE phone<sub>3pl</sub> of supporters on Sunday 'Of them phone (many) of supporters on Sundays!'

- Ne corsero tanti, di giovani.
   NE run<sub>3pl.pst</sub> many, of young people
   'Of them ran many (of young people).'
- d. Ne cammina tanta, di gente, su quei marciapiedi. NE walk $_{3sg}$  much, of people, on those pavements 'Of them walk a lot (of people), on those pavements.'

(Lonzi, 1986:112)

Bentley's (ibid.) conclusion, although cast in a very different framework, seems to be that subextraction out of unergatives is possible in case the predicate receives an existential stage-level interpretation in sentence-focus structure. If, in turn, it turns out that the factor relevant for subextraction is really being in the domain of existential closure, then it seems that for some reason the parenthetical source arguments in (89) must still stay in a position low enough to be ccommanded by the landing site of ne/en. More technically speaking, since the deep object of unaccusative verbs also eventually escapes existential closure domain, timing issues would have to play a crucial role: at the point in the derivation when subextraction happens, the external argument in a neutral sentence might have already moved up, but the internal one, as well as the focus-related external one, still stay low enough to pass the test. Cf. section 3.1 for more discussion on the difference with respect to subextraction out of reflexives and anticausatives.

#### 5. Genitive of Negation in Russian.

The conclusion reached for subextraction tests seems to be reminiscent of some claims in the literature made with respect to so-called Genitive of Negation. In spite of the fact that standardly Genitive of Negation is taken as unaccusativity diagnostic (starting from Pesetsky (1982)), under specific discourse circumstances, it is also possible with unergative verbs:

#### (90) Russian

- a. V etoj komnate ne spalo ni odnogo čeloveka. in this room neg sleep $_{3sg.neut.pst}$  not one $_{GEN}$  man $_{GEN}$  'Not a single man slept in this room.'
- b. Na etoj ploščadke nie begalo ni odnoj sobaki. on this square neg  $\operatorname{run}_{3sg.neut.pst}$  not  $\operatorname{one}_{GEN} \operatorname{dog}_{GEN}$  'Not a single dog ran on this square.'

(E. Romanova, p.c.)

I will argue at least for Polish, but it is hoped that the relevant point will be extendable to Russian, that unaccusative analysis of the verbs in (90) is not possible. (90b) for instance, is a non-directed motion verb involving a high Theme (i.e. assuming Russian -aj- conjugation class marker has the analysis parallel to Polish cognate -aj-), and as such will be argued to spell out a bigger chunk of structure including  $\nu$ P (cf. the structure in (63) in section 1.1). One has to bear in mind, obviously, the problems involved in making generalizations on the basis of cross-linguistic data. However, as Travis (2005:17) remarks, '[all] of these are outweighed [...] by what is gained.'

I hope to have shown that the dichotomy unaccusative vs unergative cannot be maintained in the present form. Firstly, movement from one  $\Theta$ -position to another results in a mixed behavior of certain verbs (as e.g. in anticausatives of the type in  $(83b)^{26}$ ). On the one hand, the argument of English break (intr.) behaves as a deep object of unaccusative verbs in the sense of allowing the resultative construction. On the other, there is an intuitive sense in which English break has causative semantics. In fact, this intuition lies behind a lot of lexical projectionist approaches to causative/inchoative alternation (cf. inter alia Chierchia (1989), Levin and Rappaport (1995), Reinhart (1996) and subsequent work), although finding the relevant evidence might be exceptionally difficult due to a specific syntactic configuration that anticausatives represent (cf. section 3.1 for details). One argument, however, is provided by Chierchia (1989) and involves availability of the Italian adverbial da se ('by itself'). This argument is picked up by Levin and Rappaport (1995:88) with respect to English:

- (91) a. The plate broke by itself.
  - b. The door opened by itself.
- (92) #Mary laughed by herself.

Whereas in (91) the adverbial has an interpretation paraphrasable as 'without outside help' and thus seems to be modifying cause, the only possible interpretation of the adverbial in (92) is 'alone'<sup>27</sup>. Thus, the conclusion is that there is a group of verbs like English intransitive *break*, which display a mixed behavior with respect to unaccusativity diagnostics.

 $<sup>^{26}</sup>$ In languages like Polish the relevant anticausative morphology is overt. Cf. section 3.1 for arguments why I take English *break* to be a covert 'anticausative'.

 $<sup>^{27}</sup>$ Levin and Rappaport (1995) provide other arguments, which do not, however, necessarily prove the point under discussion (i.e. bieventive nature of English *break* in its inchoative variant). The reader is referred to section 2.1.1 and 3.1 for a detailed discussion, where I also provide some new arguments for the complex event analysis of Polish and English anticausatives of the *break*-type.

Secondly, specific syntactic configurations (i.e. D-linking vs absence thereof) might change the results of certain diagnostics (e.g. some arguments of verbs traditionally conceived of as unergatives can still remain in the domain of existential closure), again requiring a system that distinguishes 'degrees of externality'. This particular point is furthermore incompatible with any projectionist view of argument structure, as the information represented in the lexical entry cannot possibly depend on the discourse context. The problem cannot be reduced to the existence of two separate lexical entries (i.e. unaccusative and unergative) of the same verb - a solution which might still be imaginable for directed vs nondirected motion verbs displaying similar flexibility, since then all the verbs in the lexicon would have to possess double entries, e.g. camminare<sub>1</sub> - an unergative verb with the argument merged externally, and camminare, an unaccusative verb selected in cases there is a need for subextraction, as in (89d). In Borerian system, this would in fact be an extreme example of flexibility of roots. Yet, since the unaccusative nature of camminare<sub>2</sub> in (89d) does not seem to be confirmed by any diagnostic (e.g. the verb does not seem to receive a telic interpretation, which is an unaccusativity prerequisite in Borerian system), I interpret this anomaly in a different way. I take the D-linking contexts to allow for subextraction due to a somewhat belated movement of the external argument from its initial position. Differently from Borer, however, I take the (relevant level of) unaccusativity and unergativity of specific stems to be hard-and-fast and encoded in the lexicon in the ways to be specified.

Another example of the phenomenon where diagnostics are sensitive to additional factors, not directly related to VP-internal argument generation is the difference between passive -n/t- vs active resultative -t- participles, which distinguish on an even more fine-grained level (i.e. objects of transitives vs arguments of unaccusatives). All of these facts are only compatible with so-called syntactic bootstrapping (Gleitman (1990)). Theories postulating any form of Lexical Conceptual Structure (LCS), where the decomposition into meta-predicates like CAUSE, BE, etc. takes place in the lexicon and is then mapped into Argument Structure (AS), cannot have a way to account for the multiplicity of cases. This is because the only level to which syntax has access is AS. And AS only operates in terms of the number of arguments and the dual distinction between external and internal arguments (cf. e.g. Grimshaw (1990), Levin and Rappaport Hovay (1988), Tenny (1987), Zubizarreta (1987)). Of course, the possible avenue of research for these theories would be to introduce more fine-grained distinctions. In that case, however, a suspicion arises that the ultimate result might reproduce a syntactic tree in AS. In effect then, the lexical projectionist approach, in order to account for the empirical data, would have to provide a separate level corresponding to a snapshot of every Merge operation in a derivational framework.

# 1.5 Pylkkänen's static fusion as a parameter

We have seen in section 1.1 that most of the theories of  $\nu^0$  endow this head with quite a few syntactic properties, including valency increase, Case assignment, manner, a category-defining property, as well as a phase-boundary defining property. This, to my mind, has serious empirical drawbacks. Due to multiplicity of syntactic structures where these properties are divorced, an explosion of 'flavors' of  $\nu$  takes place (cf. inter alia Embick (1998), McGinnis (1999), Folli and Harley (2002) Alexiadou (2001) for a deficient  $\nu$  in different syntactic configurations). In the present work I would like to pursue the research agenda focused on deconstructing functional hierarchy on a very fine-grained level, possibly leading to every syntactic head expressing a single feature. The reason for this particular choice of direction (i.e. fine-grained decomposition, as opposed to 'flavors' of heads) has been presented in section 1.2 and involved the selection problem, which yields an overgenerating system.

Thus, following Pylkkänen (2002), I will assume that the only universal definitional property of CAUSATIVES is introducing a Causing (sub)event<sup>28</sup>.

(93) **CAUSE**: 
$$\lambda P.\lambda e.[(\exists e') P(e') \& CAUSE(e,e')]$$

Pylkkänen argues quite convincingly that valency-increase associated with Causatives is an illusion stemming from the fact that certain languages 'bundle' event introducing head (CAUSEP in her terminology) with external argument introducing head (VoiceP). Her main arguments for splitting the two come from the existence of structures which she labels as 'caused unaccusatives'<sup>29</sup>. These are the structures where CAUSEP projects on its own. In the present system of radical decomposition these will be structures possessing (some portion) of the light verb system, but lacking Initiator P (cf. in particular chapter 5 on so-called 'out of control' constructions). These structures, for Pylkkänen, are only possible in languages which do not bundle CAUSE and VOICE (i.e. my Initiator), e.g. Finnish and Japanese. The case in point is Japanese adversity causative (illustrated in (94)) and Finnish desiderative (in (95)).

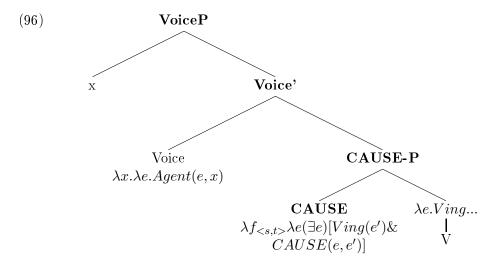
(94) Taroo-ga musuko-o sin-**ase**-ta. Japanese
Taro-NOM son-ACC die-CAUS-PAST
'Taro's son died on him.<sup>30</sup> (Pylkkänen, 2002:(155))

<sup>&</sup>lt;sup>28</sup>Note that Pylkkänen incorporates the CAUSE relation into the semantics of the relevant syntactic projection, as shown in (96). I have stated in section 1.1 that the working assumption is as in Ramchand (2003), i.e. the relation CAUSE comes from outside the structure -cf. *Principle of Event Composition*.

<sup>&</sup>lt;sup>29</sup>Again, the label 'unaccusative' seems to be misleading here - cf. section 1.4.

(95) Maija-a laula-tta-a. Finnish
Maija-PART sing-CAUS-3SG
'Maija feels like singing.' (Pylkkänen, 2002:(168))

The above examples are puzzling since in spite of clearly involving causative morphology, they do not have an obvious causative meaning. In other words, the valency of the relevant predicate is unchanged in the Finnish case. In the Japanese case, on the other hand, although the valency is increased, the added argument is a Malefactive rather than Causer. Pylkkänen argues that the monoeventive analysis of Causatives (as e.g. in Doron (1999)), which relates the Causer to the event by means of its  $\Theta$ -role, and does not distinguish between inchoative melt and causative melt otherwise, is unable to handle the cases in (94) and (95). On the other hand, in a bieventive theory, where Cause and Voice are split, as in (96), the existence of Voiceless structures is predicted.



Following much of the literature on inflectional heads (e.g. Iatridou (1990), Bobaljik (1995), Bobaljik and Thráinsson (1998)), Pylkkänen proposes that in some languages (e.g. English) the causative relation and the external Θ-role are 'packaged' together into one morpheme. Thus, English CAUSE is taken to be 'Voice-bundling'. This is essentially the 'static fusion' approach mentioned in section 1.2.

Although I will endorse the split into Voice and Cause, I do not believe that this is the right description of the facts. Firstly, it is not clear which is the English morpheme into which Cause and Voice are purportedly 'packaged'. Since English does not have a morphological causative, it is hard to think of a good candidate, except maybe for the root. If the English root, however, always spells out both Cause and Voice, then it is not clear how it can occur

<sup>&</sup>lt;sup>30</sup>The example also has a transparent causative reading, which does not concern us here.

in structures without an obligatory external argument, e.g. in Passive. For Pylkkänen, it is a passive variety of VoiceP that will be responsible for that. Yet, that amounts to postulating that the English root is actually systematically ambiguous in the bundle of features that it spells out (i.e. Cause + Voice or Cause + Voice $_{Pass}$ ).

Due to a specific theory of Passives proposed in section 4.3, I will relabel the projection introducing external arguments from VoiceP into Initiator P (cf. section 1.6 for discussion). I will also argue that the participial morphology involved in Passive attaches at the level lower than Initiator P, but higher than CAUSE-P (i.e. my  $\nu_{NEUT}$ ). From that point of view, every (passive) participial projection in every language (including English) is (Pylkkänen's) non-bundling structure. Generally speaking, on this kind of approach every language has the potential to display a non-bundling property on condition it has items with the lexical specification similar to Polish Event Separator -n/t-.

Understood this way, the superficial effect of 'bundling' is not really a cross-linguistic parameter related to fusion of syntactic projections, but rather relates to the fact whether the particular lexicalization scenario allows for the Specifier of a given light verb to be overtly expressed or not. Both  $\nu_{NEUT}$ P and Initiator P, as well as the hierarchy of light verbs in between the two are universal and innate. Particular languages can only display or not the constructions where the presence of  $\nu_{NEUT}$  is detectable in isolation from Initiator P. As the multiple projections where the external argument can be merged will be argued to correlate with different semantic restrictions on this argument (cf. chapter 5 and section 1.7 below), these restrictions will in fact reveal the presence of a particular projection and the absence of another one. In other constructions, the presence of the intermediate projections in the light verb system might be masked by lavishly inserted conjugation class markers, yielding a 'bundling' effect.

This issue is of central interest in Part II of the present thesis. Thus, Polish Impersonal Passive (discussed in chapter 3) will turn out to involve an even higher functional projection, where the external argument has to be merged. Salishan languages, on the other hand, use the distinction between different levels of argument introduction quite pervasively in the grammar and it manifests itself in different types of so-called 'transitivizers' (cf. section 3.1.4). Similarly, in chapter 5 I will present a typology of 'non-bundling' constructions involving the reflexive clitic. The account of Polish crucially relies on the notion of up-squeezing, whereas Lillooet Salish simply possesses two different functional vocabulary items with different lexical specifications. Under these assumptions no manipulation of the universal functional sequence is necessary, and all cross-linguistic differences are in fact reduced to language-particular lexical accidents.

# 1.6 The status of Passive in a Voice system

In spite of the amount of literature devoted to the notion of Passive (starting from Chomsky (1965), Perlmutter and Postal (1977)), there is still surprisingly little understanding with respect to the universal or definitional properties of Passive.

In the early generative theory (Chomsky (1965)) for instance, Passive was viewed as a *transformation* deriving an output sentence (97b) from an input sentence (97a):

- (97) a. Mary killed the chicken.
  - b. The chicken was killed.
  - c. NP1 V NP2  $\rightarrow$  NP2 AUX V+EN by NP1

As the research progressed, however, it turned out that most of the properties displayed by the structural description in (97c) are in fact not shared by constructions which were labelled 'Passive' in other languages. Consider the following diagnostics, taken by at least some researchers as definitional:

- Passive applies to transitive verbs only. This is most obviously not true cross-linguistically, and in fact has formed a criterion for distinguishing between Personal and Impersonal Passives. (98) is an illustration of the latter from German and Finnish.
  - (98) a. Es wurde getanzt. German it was danced 'There was dancing.'
    - b. Illa-lla laule-ttiin. Finnish
      evening-ADESS sing-PASS.PAST
      'In the evening it was sung.'

(Manninen and Nelson, 2004:(29b))

Passive involves 'suppression'/'absorption' of ACC Case. This way of formulating the effect of the operation is especially problematic in a bottom-up derivation, since it is not clear how 'suppression' is to be executed. More updated accounts might propose certain deficiency of functional heads (cf. e.g. ν with the feature [passive] in Manninen and Nelson (2004)), but this kind of solution amounts to restating the problem as far as I can see. More importantly, however, ACC Case 'absorption' is also not borne out cross-linguistically, as shown in (99) for Polish and Finnish:

(99) a. Zastrzelo-no go. Polish shoot-PASS  $\lim_{ACC}$  'He was killed.'

b. Häne-t murha-ttiin. <sup>31</sup> Finnish s/he-ACC murder-PASS.PAST 'S/he was murdered.'

(Manninen and Nelson, 2004:(52b))

- Promotion of the object to the Subject position. This property is in Principles and Parameters theory related to the previous one and stems from the Case Filter. Since the DP in the object position cannot receive Case, it needs to raise to Spec, IP to be assigned NOM. Since it is closely related to ACC 'suppression', it also does not hold universally (cf. (99)).
- Passive reduces valency of the predicate. This property has actually two possible interpretations, which I will call (i) absolute valency reduction, and (ii) phonological valency reduction. The former is a stricter requirement in the sense that the verb 'loses' its argument in a syntactic, as well as phonological sense when compared with its active equivalent. That means that the surface Subject (instead of implied Agent) serves for the purposes of reflexive binding, control of adjunct clauses, etc. I illustrate with Polish Periphrastic Passive:
  - (100) a. Maria $_i$  została skłóco-n-a ze swoimi $_i$  dziećmi. Maria $_{NOM}$  became quarrel-PASS-f with refl.poss children 'Maria has been made to quarrel with her children.'
    - b. Wraca-jąc do domu, Maria została zaczepio-n-a. return-pres.prt to home, Maria become $_{pst.3sg.f}$  accost-PASS-f 'Returning home, Maria has been accosted.'

'Absolute valency reduction' is not a universal property of Passives, as shown in (101) for Polish, where it is the implied Agent that binds the reflexive in (101a), controls the Subject of the depictive predicate in (101b), and controls into an adjunct clause in (101c):

(101) a. Kocha-no swoje żony Polish love-PASS poss.refl wives<sub>ACC</sub> 'People loved their wives.'

<sup>&</sup>lt;sup>31</sup>An interesting quirk of Finnish, which will play a role in chapter 5 is that only pronouns and Partitive DPs retain their objective Case (i.e. ACC or PART). Cf. also section 1.7 for the relevant discussion.

- b. Opala-no się nagim. sunbathe-PASS refl naked<sub>3sg.m.INSTR</sub> 'Someone was sunbathing naked.'
- c. Wracaj-ąc do domu, palo-no papierosy.
  return-pres.prt to home smoke-PASS cigarettes
  'People were smoking cigarettes when returning home.'

This set of facts is what leads Blevins (2003) to conclude that there is a difference between Passivization and Impersonalization, where only the former reduces valency. In the present work, I will concur with this conclusion, and try to derive the difference between the two from different structural configurations.

A worse problem, however, is that even the less restrictive 'phonological valency reduction' does not seem to be true of all the constructions that have been labelled PASSIVE. I illustrate with Japanese Adversity Passive in  $(102)^{32}$ :

#### (102) Japanese

a. Taroo-ga Hanako-ni shinkoushuukyoo-o
Taro-NOM Hanako-DAT new.religion-ACC
hajime-rare-ta.
begin-PASS-PAST
'Taro was adversely affected by Hanako starting a new
religion.'

(Pylkkänen, 2002:(114))

We see in (102) that the Passive morphology in fact adds an adversely affected argument, instead of suppressing the Agent.

• Passive attaches to verbs that have an external argument only. In P&P accounts this is sometimes taken as flowing from the fact that the Passive morpheme -en is itself an argument and receives an external Θ-role, as well as is assigned Case (cf. particularly Jaeggli (1986), Baker (1988), and Baker et al. (1989), where however this is taken as a parameter). In Relational Grammar accounts (e.g. Perlmutter (1978)) Passives of unaccusatives are excluded by 1-Advancement Exclusiveness Law (cf. section 3.2.1 for more discussion). Even this purported feature of Passive-like constructions does not seem to be universal. I illustrate with Finnish:

<sup>&</sup>lt;sup>32</sup>One might ask at this point why is the construction under discussion even called PASSIVE. The reasons are most probably always related to the polysemous nature of the relevant morphology, i.e. the fact that the morpheme is also used in a more prototypical PASSIVE construction. This situation follows from the present system, as argued in chapter 4.

#### (103) Finnish

- a. Soda-ssa kuol-tiin isänmaa-n puolesta. war-INESS die-PASS.PAST fatherland-GEN behalf.PART
   'In the war it was died on behalf of the fatherland.'
   (Manninen and Nelson, 2004:(21a))
- The Agent in the Passive is expressed as an oblique by-phrase. As noted by Collins (2004), this is in fact quite a serious drawback of the traditional P&P account of Passives, since the external argument of Active sentences is generated in a very different place in the structure (in Spec,IP or Spec,νP, the latter embracing the VP-internal Subject Hypothesis) than the same argument in the Passive (i.e. as a PP adjunct to VP). Quite apart from this theoretical problem, only some varieties of Passives allow by-phrases, as illustrated for Norwegian Personal and Impersonal Passives in (104a) and (104b) respectively<sup>33</sup>:

#### (104) Norwegian

- a. Denne boka ble lest av mange mennesker. this book.the become pst read prt by many people 'This book was read by many people.'
- b. Det ble danset (\*av mange mennesker). it become<sub>pst</sub> dance<sub>prt</sub> (by many people) 'There was dancing by many people.'

This fact can actually be interpreted in two dramatically different ways, i.e. depending on the assumptions about the by-phrase, its availability can be taken as documenting either the presence or the absence of internal argument. If a by-phrase is taken as some sort of doubling phrase parasitic on the presence of the external argument, then its unavailability testifies to the total suppression of the external argument (as e.g. in Engdahl (to appear)). If, however, the by-phrase in fact is an external argument, then we expect mutual exclusion situation and in this case the unavailability of the by-phrase will indicate that the external argument is present in some ways<sup>34</sup>. In what follows I will adopt the latter assumption due to a particular way of conceiving of the relation between the Nominative external argument and the Instrumental adjunct (cf. section 1.7).

 $<sup>^{33}</sup>$ Although for some speakers there is a marginal possibility of a by-phrase in Impersonal Passive, there exists at least a group of speakers for whom it is totally out (Tarald Taraldsen, p.c.).

<sup>&</sup>lt;sup>34</sup>Obviously, this reasoning will only hold for the comparison of Agreeing Passive and Impersonal Passive, but not for true unaccusative structures, where neither an external argument nor any causing subevent is present.

Thus, we see from the above overview that there seems in actuality to be no common denominator for all the constructions that have been labelled 'Passive' cross-linguistically, maybe with the exception of 'some morphological marking' on the verb. In that situation, the very label 'Passive' seems to be contentless, and should either be dispensed with or restricted to a very specific subset of contructions mentioned above.

Following the analysis of Norwegian get-passives, as well as Japanese Adversity Passives in Taraldsen (2003) and Taraldsen (2004), I will argue in chapter 4 for a decompositional analysis of constructions involving 'passive' morphology, where the typology of various constructions arises by 'aborting' the universal functional sequence by means of Event Separators at different levels. Thus, the constructions under discussion (Polish Periphrastic and Impersonal Passive, as well as uncontroversial nominalization) will be argued to be 'underdeveloped' actives. The mechanics of the analysis will crucially involve lavish insertion defined in section 1.2, where the spell-out of the Event Separator (traditionally called 'participial morphology') will be up-squeezed by the Theme (i.e. conjugation class suffix). It will also be observed that the level at which Event closure occurs correlates with the semantic restrictions on the external argument. Hence, for instance, the usual animate or human requirement on the implied Subjects of Impersonal Passives (cf. Siewierska (1984), Manninen and Nelson (2004)). This issue is directly related to the nominal functional sequence, to which I turn in the next section.

# 1.7 Peeling

An issue of considerable import in the present work is the semantic interpretation of certain arguments in particular constructions. In the course of the discussion I will try to answer the question relating to obligatory animacy or humanness of particular arguments in certain varieties of participial and reflexive constructions, as contrasted with the lack of such interpretational restrictions in other participial/reflexive constructions.

For that purpose I would like to make use of the recent attempts to draw a parallel between the verbal and the nominal functional hierarchies (starting with Pollock (1989) and Abney (1987) respectively). One such attempt, which I would like to build on, is Cardinaletti and Starke (1999) (henceforth, C&S), Starke (2001) and subsequent work. C&S observe a series of syntactic, semantic and phonological asymmetries within the pronominal system. These asymmetries are the basis for the division into three types of pronouns: strong pronouns, weak pronouns, and clitics. E.g., in the syntactic realm, strong pronouns on the one hand, and weak and clitic pronouns on the other, behave differently distributionally. Whereas the former can occur in a low so-called  $\Theta$ -position, weak and clitic pronouns must occur higher, in the Specifier of a functional projection. Furthermore, only strong pronouns

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can be coordinated and modified by certain types of modifiers. Strong pronouns can only refer to [+human] entities.

On the semantic plane, deficient pronouns are incapable of bearing their own range restriction. Therefore, they are either rangeless (e.g. when they occur as expletives, in impersonals, or nonreferential datives) or else they acquire a range-restriction from a discourse antecedent. From a phonological point of view, only deficient elements can restructure, i.e. form a single prosodic unit with an adjecent lexical item.

C&S also observe that the deficient characteristics of weak pronouns are a proper subset of the deficient characteristics of clitics. Therefore, they argue, the trigger for the deficiency of weak pronouns must be shared by clitics. Building on the morphological fact that strong pronouns very often seem to contain the morphology of deficient pronouns (e.g. Italian  $a\ loro = a + loro$ ), they propose that the 'dummy marker' a in fact realizes a functional projection in the nominal functional sequence. From that perspective the structural deficiency of weak elements is taken to entail lack of a set of functional heads. Building on the analogy to verbal functional sequence, for the case of a, C&S take the relevant projection to be the equivalent of  $C^0$  in the nominal system:

Strong pronouns have both XP and YP, whereas weak pronouns lack the former. Now, since the presence of  $X^0$  is associated with a referential index, it follows that strong pronouns must always have a range. The necessary [+human] reference of strong pronouns, on the other hand is taken to be a default range of a natural language. Strong pronouns are claimed to be facing a contradictory situation: on the one hand they must contain a range due to the presence of XP; on the other hand, they are associated with a dummy noun which does not provide a range-specification. The way to resolve the tension, C&S argue, is to resort to default human specification. In the present work I will not, however, endorse that way of explaining human restriction, noting only that C&S are still forced to assume a stipulation to the effect that Spanish 'dummy marker' a, as well as Romanian pe have to be specified in the lexicon as [+human] morphological exponents of  $C^0$ , and the noun needs to agree with this feature. Instead, I will suggest that the semantic features creating an implicational hierarchy, as in (106) (cf. also Silverstein (1976)) correspond to the functional sequence in nominals<sup>35</sup>:

 $<sup>^{35}</sup>$ Admittedly, the human denotation of strong pronouns when compared with lack of such a restriction with deficient pronouns is somewhat harder to account for in the present system since the implicational hierarchy in (106) in fact entails that the feature [pronoun] is lower than the feature [human] in the nominal  $f_{seq}$ . Thus, one would expect all pronouns, including weak pronouns and clitics, to also display the feature [+human]. More

(106)  $\pm DP > \pm animate > \pm human > \pm pronoun > \pm participant$  (i.e. 1,2person)

The most specific elements (i.e. 1,2 person pronouns) have the most impoverished structure. Now, the question arises why these structurally deficient elements should necessarily occupy a derived position in the (Specifier of some) functional projection. C&S's answer to this is (107):

(107) Features missing in a deficient structure must be recoverable at all levels of representation.

Thus, since all noun phrases need to be associated with case-features, they need to undergo movement allowing them to be associated with the relevant functional projection containing case-features.

In the later work of Starke (e.g. Starke (2001) and subsequent oral presentations), this requirement goes under the rubric of 'peeling' and is extended to full DPs, apart from pronouns. Under his assumptions, the DP 'is born' in an oblique shape and 'peels' off its functional layers when moving through particular positions in a verbal  $f_{seg}$ . I will assume that different levels of structural deficiency correspond to different degrees of obliqueness. However, I will not assume that Case-licensing is the driving force behing the movement of arguments along the verbal  $f_{seq}$ . Instead, I take arguments to posses uninterpretable thematic features, which need to be checked against specific functional projections, in accordance with Greed (Chomsky (1995b)), and the particular Cases that arise from these movements to be epiphenomenal in nature. Thus, normally a DP in the Numeration has just one uninterpretable  $\Theta$ -role, but since  $\Theta$ -Criterion has beed rejected in section 1.3, it will turn out that there can be as many as four uninterpretable thematic features, corresponding respectively to RESULTEE, UNDERGOER, AGENT, INITIATOR. The reason I assume that uninterpretable thematic features are located on Nouns, and not on functional projections is because we will see cases where in spite of the presence of a certain thematic projection, and the lack of indication that the argument has moved via this projection, the derivation still coverges. Given that no uninterpretable features are allowed to reach the interfaces, this must indicate that  $\Theta$ -features on functional projections are in fact interpretable. Additionally, there can be various interdependencies between  $\Theta$ -roles: firstly, it seems that UNDERGOER and RESULTEE are always present on one and the same argument, secondly the AGENT role (which will be argued to be checked in  $\nu_{DIR}P$ ) might in fact be a composite role, which requires all of the relevant sub-features to be present

generally speaking, it does not seem that C&S's cases can ever be accounted for in terms of implicational feature hierarchy, no matter which order of features is postulated, since although structurally weak pronouns are a subset of strong pronouns, no implication for the feature [+human] holds. Since in the present work I deal with a different set of cases, I leave this issue for future research.

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on the same argument. These will be the features that are checked in the light verb system. Finally, there might also be general restrictions on the number of roles checked by one argument (cf. chapter 3 where I argue that combining internal and external  $\Theta$ -role on a DP requires the presence of the reflexive clitic in the Numeration).

Furthermore, the concept of *lavish insertion* will also be invoked within the nominal  $f_{seq}$ . Thus, e.g. a DP in a da-phrase occurring e.g. in Italian Passive might be structurally represented as in (108), contrasting with the Dative Causee marked by the 'dummy marker' a:

(108) a. 
$$[F_n \longmapsto da \longrightarrow [NP]]$$
  
b.  $[F_{n-3} \longmapsto a \longrightarrow [NP]]$ 

(108b) is deficient in the sense that  $F_n$ ,  $F_{n-1}$ ,  $F_{n-2}$  are missing. This is, again, stemming from the lexical specification of the relevant oblique markers. The lavish insertion of the markers opens the possibility of two dimensions of cross-linguistic variation:

- (i) the terminological one: due to lavish insertion what is called DATIVE in a language X might not necessarily have the analysis identical to (108b) in a language Y (e.g. if the label DATIVE is used in this language for the item spelling out up to (and including)  $F_{n-2}$ );
- (ii) the distributional one: due to the flexibility in insertion (i.e. up- and down-squeezing) an item x in a language X might be used in a different range of constructions than an item y (with an overlapping lexical specification) in a language Y. This is because their up- or down-squeezing potential might be differently lexically specified, even if the full lexical specifications are identical. A similar conclusion is reached for non-Nominative subjects in Mahajan (2004).

Coming back to (108), in a certain sense the account is similar to the one in Collins (2004), where the Agent in the Passive is merged in exactly the same position that it is merged in the active sentence, i.e.  $\operatorname{Spec}, \nu_{NEUT} P$  the first of the light verb hierarchy<sup>36</sup>. The difference between the active and the passive would then consist in the fact that in the latter construction the external argument stays low in the verbal  $f_{seq}$ , whereas in the former it peels its higher layers by moving through different projections in the verbal  $f_{seq}$  to end up finally in the NOMINATIVE Case. From this perspective it is interesting that Nominative seems to be morphologically most unmarked in the sense that in very many languages it displays no morphological marker outside the nominal root/stem. In other words, the proposal relating to the

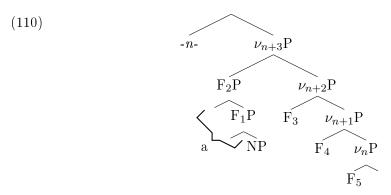
 $<sup>^{36}</sup>$ Yet, differently from Collins, I do not assume that the marker by is the head of VoiceP, but rather a subsequence of nominal  $f_{seq}$ . There are numerous other differences between Collins's and my account, which however do not directly concern the issue under discussion (cf. section 4.1.3 for more on the differences.).

nominal  $f_{seq}$  is that morphological cases are embedded one in the other. In the present thesis, I will try to answer the question which particular projections in the verbal  $f_{seq}$  correspond to which ones in the nominal one.

One remaining question is what happens to the nominal peels left by a DP in the course of its movement to a higher position? Let us consider an exemplary derivation. Suppose that the Numeration contains an Event Separator -n/t- and a root selecting high Thematic vowel labelled here  $TH_{high}$ , as in  $(109)^{37}$ :

(109) 
$$\{DP_{INSTR}, DP_2, -n_{-}, \sqrt{+TH_{high}}\}$$

Since -n- and  $TH_{high}$  have overlapping lexical specifications (cf. (49) and (59) in section 1.2), different squeezing possibilities are tried out. Let us concentrate on one of the converging derivations, e.g. where the Theme is inserted to fill up until  $\nu_{n+3}P$  (in other words it undergoes optional down-squeezing) and the Event Separator merges on top of it, to fill up all the remaining light verbs, including init P.



Before, however, lexical insertion takes place,  $DP_{INSTR}$  is attracted to  $\nu_n P$  in virtue of having a matching feature<sup>38</sup>. Subsequently, a subextraction of the nominal sequence  $[F_4 \dots [NP]]$  to Spec,  $\nu_{n+1}P$  takes place, followed by another subextraction, this time of  $[F_3 \dots [NP]]$  to  $Spec, \nu_{n+2}P$ . Note that subextractions need to be subsequent in order to check all uninterpretable features on the light verb projections at the end of the day. Finally, when  $[F_2 \dots [NP]]$  is merged in  $Spec, \nu_{n+3}P$ , Theme<sub>high</sub> is inserted and the DP has to find itself at the edge of the dynamic phase at this stage in the derivation. Further merger operations involve negative values of light verbs. Therefore, the DP will have no reason to move to higher specifiers. What then about the spell out of the nominal layers? The marker inserted in the relevant Specifier must be a, and not da due to the constraint on insertion in (57), section 1.2 to the effect that lavish insertion can only apply to contonuous heads.

<sup>&</sup>lt;sup>37</sup>I abstract away here from the issue relating to the Auxiliary.

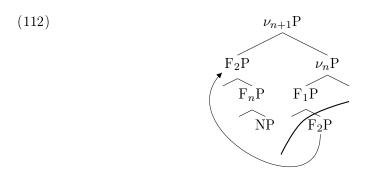
<sup>&</sup>lt;sup>38</sup>In subsequent chapters I will readjust the subscripting on verbal and nominal projections in order to make feature-matching more conspicuous.

1.7. PEELING 59

Furthermore, in principle one might imagine that da might compromise its lexical specification by  $[F_n, F_{n-1}, F_{n-2}]$ . This situation will be blocked by the Elsewhere Condition (EC, cf. Kiparsky (1973)). The essence of the EC is that, when the same representation could in principle undergo either of two rules which have conflicting effects and are related such that one is more general and the other more specific (being applicable only to a proper subset of the forms potentially affected by the other), then it is only the specific rule that can apply, thereby disjoining (pre-empting) the conflicting general rule. Since a is the spell out of a subset of structures spelled out by da, this will be selected for insertion. What, however, of the remaining Specifiers? If there is no item specialized to spell out the relevant nominal shell, this shell will remain nonovert. In principle, however, we could imagine a language that possesses such an item specialized to spell out one of the relevant shells. Consider a situation where two items are involved, e.g. as in (111):

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If a language displays such two lexical items, it is in principle possible for it to have a construction where the derivation is 'aborted' by an ES just after  $\nu_{n+1}P$ .  $F_2P$  is attracted to  $\operatorname{Spec},\nu_{n+1}P$  and the marker y is inserted. Apart from that, however, x can also be inserted in  $\operatorname{Spec},\nu_nP$  since no compromise to the lexical specification needs to be involved. Pending evidence to the contrary, I will assume that this situation is in principle possible, although it has to be observed that it must be quite rare due to the fact that it requires two lexical coincidences: (i) two lexical items with appropriate specification and (ii) Event Separator displaying a specification that would allow 'abortion' at the relevant level. It might be the case that the scenario in (111) results in the presence of an argument embedded in a PP and bearing a certain oblique case (where the former is a morphological manifestation of  $F_3$  shell, and the latter  $F_2P$ ).



Alternatively, one might follow Starke (2001) and assume the collapse of Specifiers and heads. Then all the nominal peels would in fact be lexicalized by the Theme. I will continue to use the more traditional phrase structure throughout the dissertation, but it should be kept in mind that nothing significant will change in the analysis were the Specifiers and heads to be collapsed.

### 1.8 Overview of the thesis

This thesis is about the way certain 'word markers' relate to argument structure. Part I deals with theme vowels (which I refer to as Themes), Part II with another class of markers (labelled Event Separators). The empirical scope of the latter includes passive and active participal morphology, as well as nominalizing morphology. I argue that both Themes and ESs should be conceived of as lavishly inserted fillers of  $f_{seq}$ , with the flexibly defined upper bound for one type of conjugation class marker (i.e. Theme<sub>high</sub>) and a strictly defined one for the other type (i.e. Theme<sub>low</sub>), and a flexibly defined lower bound for ESs. Thus the flexible boundaries will be movable, and in this sense will result in a typology of constructions involving the same word markers. I start out in section 2.1 with the problem of cross-linguistic differences of two types: (i) whether a language uses morphological means to derive an inchoative from transitive variant of causative-inchoative alternation (so-called 'anticausativizing' morphology) or the other way round (i.e. 'causativizing morphology'); (ii) whether roots functioning as verbs are necessarily augmented in a language or not. In section 2.2 I udertake a case study in the verbal morphology of Polish. The goal of this section is to show that what has up till now been considered purely inflectional, meaningless morphology, and as such has constituted one of the last vestiges to be invoked by the advocates of a strict division between morphology and syntax, does in fact interact with syntax in multiplicity of ways. The case in point is so-called 'theme vowels' or conjugation class markers. The specific proposal I entertain is that there are two types of Themes, each of which spells out a different chunk of functional sequence on top of the root. The distinction between the two thus yields a certain level of split intransitivity, since the Theme overtly signals the size of the structure. Furthermore, I also show how the detailed analysis of the semantics of particular subevents set up in section 2.2 accounts for certain irregularities or restrictions within the Aspectual domain (specifically, the formation of Secondary Imperfective), which otherwise get swept under the carpet of 'morphological aberrants'.

Chapter 3 picks up two domains sensitive to the particular types of event structure, as decomposed in section 1.1 and signalled overtly by the conjugation class suffixes. The two domains are (i) reflexively marked verbs,

including reflexives, anticausatives, Reflexiva Tantum, and prefix-induced reflexives; (ii) Impersonal Passive in Polish<sup>39</sup>. The evidence amassed in the course of the discussion is aimed to provide confirmation of the particular way to decompose the macro-event, as well as the role of the Themes. In section 3.2.5 I also show that the curious properties of Polish Impersonal Passive are not an isolated quirk. Other unrelated languages, e.g. Turkish, also seem to have the relevant construction. I also argue that the Polish Impersonal Passive -NO/TO, in spite of involving the same morphology as in the regular Passive, is in fact a case, where Polish uses the morpheme as an active (perfect) participle, similarly (though not identically) to the active perfect participles in Germanic and Macedonian. In an attempt to derive the curious requirement of sentience/humanness on the understood argument of Impersonal Passive, I make an excursus in section 3.1.4 on Salishan and Arawak languages in order to show that the sentience of the external argument makes a difference when it comes to (i) morphological realization of the transitivizer (in Lillooet Salish), (ii) agreement pattern on morphologically derived causatives (in Tariana). This finding sets up a stage for postulating two positions for the external argument: in Spec,  $\nu_{DIR}P$  (for animate DPs), and in Spec, Initiator P (for any DP).

Part 2 concerns the influence of participial morphology on the argument structure. In section 4.2 I return to the Polish Impersonal Passive and propose an analysis of it that accounts for its unusual cross-linguistically property of assigning ACC Case. Since ACC Case under my assumptions is not available within the passive participial projection, I argue that -NO/TO involves the case of substantial 'up-squeezing' of the participal morphology by the Theme, where the embedded Theme fills the structure up to a level higher than in a regular Passive, with the -n/t- morpheme ending up spelling out a subset of its lexical specification. This hypothesis draws a parallel between -NO/TO and active perfect participles in other languages, and in this way accounts also for the restricted Tense interpretation of the construction in question<sup>40</sup>. In section 4.3 I compare three types of constructions in Polish involving participial morphology, and argue in a deconstructionist spirit that the differences between them relate to spelling out different subsets of the lexical specification of the relevant morpheme. A corollary of the proposal is also a biclausal analysis of Periphrastic Passive in Polish.

Chapter 5 is an investigation of so-called Out of Control (OOC) constructions, which I claim involve Causative structures without an Initiator. This

The terminology is somewhat confusing though: I refer to all the constructions involving a given clitic  $(si\varrho)$  as reflexive-marked, purely as a mnemonic, whereas one of the uses of the clitic is referred to as 'reflexive' (as e.g.  $my\acute{e}$   $si\varrho$  ('wash')).

<sup>&</sup>lt;sup>40</sup>Note that this is incompatible with the claim in e.g. Collins (2004) or Embick (2004), where both active and passive participles are taken to involve the same structures.

is another domain where the presence of a higher light verb has not been masked by the usual lexicalization of the Theme. Having reviewed the cross-linguistic evidence for OOC, I undertake a case study involving Polish Dative reflexive construction. Exploiting the idea of lavish insertion, I propose an account of OOC constructions in terms of the reflexive marker being a spell-out of the relevant Causative head, namely so-called Faire Infinitive (henceforth, FI) Causative. OOC will be argued to involve a lexicalization scenario whereby the external argument is blocked to move further from Spec,  $\nu_2$ P. In that sense an external argument of OOC construction will be argued to be structurally identical to the Causee in the Faire Infinitive Causative. The discussion also bears on the status of the reflexive marker with Mediopassives, Middles and Impersonals, and builds a major parallel between the typology of participial morphology involving contructions on the one hand, and reflexive marker involving ones on the other.

Chapter 6 concludes this work, as well as speculates on the possible extensions where the architecture arrived at in the course of the discussion might be employed.

## Part I

Themes

## Chapter 2

# Event decomposition and conjugation classes

#### 2.1 Inter-language variation

#### 2.1.1 Defining the problem

The variation in the morphological shape of both alternants of the so-called causative/inchoative alternation has been an object of study for a long time now, which resulted in a proliferation of accounts for the variation. To illustrate the problem, let me first show examples of causative/inchoative alternation in a strongly causativizing language, namely St'át'imcets (Lillooet Salish) (data below from Davis (2000)). What I mean by 'strongly causativizing' is a language that regularly shows surplus morphology on transitive verbs.

#### (1) St'át'imcets

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qam't 'to be hit' (by thrown object) (intr.) qam't-s 'to hit' (by throwing') (tr.)

7us 'to get thrown out' (intr.) 7us -ts 'to throw out' (tr.)

k'ax 'to be dry, to get dry' (intr.) k'áx-an' 'to dry' (tr.)

xwak 'to wake up, be awoken' (intr.) xwák-an' 'to wake' (tr.)
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As shown in (1), all bare roots is St'át'imcets are intransitive. In order to be used transitively, they must be suffixed with one of the overt transitivizing morphemes. The variant that is morphologically more complex is the causative alternant.

Other languages seem to display the reverse situation: from the morphological point of view, it is the intransitive variant that seems to be derived. I will refer to these languages as 'anticausativizing' below. Commonly the function of so-called 'anticausative' morphology is fulfilled by the reflexive marker. I illustrate with Polish, but it should be borne in mind that a lot

of languages display anticausativizing derivations, e.g. Italian, Hebrew (i.e. to the extent that the *hitpael* binyan can be considered 'anticausativizing'), Nivkh (isolate, possibly Altaic). For a detailed survey cf. Nedjalkov (1966) and Haspelmath (1993).

(2)

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otworzyć 'open' (tr.)otworzyć się 'open' (intr.)gubić 'lose' (tr.)gubić się 'get lost' ('intr.')gotować 'boil'(tr.)gotować się 'boil' (intr.)mieszać 'mix' (tr.)mieszać się 'get mixed' (intr.)
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On top of that, there are languages where verbs are ambitransitive (terminology due to Dixon and Aikhenvald (2000)) or labile (Haspelmath's (1993) term), where inchoative and causative variants do not display any morphological difference. I illustrate with English and Tariana (North Arawak). The latter language shows an interesting quirk.

- (3) a. Mary broke the branch.
  - b. The branch broke.
- (4) Tariana
  - duhua-ne heku-kena du-thuka, duka she-FOC.A/S tree-BRANCH 3sgf-break.TRANS, 3sgf+arrive du-pe-pidana du-kolota du-ña 3sgf-let-REM.P.REP 3sgf-meet 3sgf-hit diha-na-nuku ART-VERT-TOP.NON.A/S dhi-ni-na-nuku kayu duhua 3sgnf+swive-TOP.ADV-CL:VERT-TOP.NON.A/S so she du-ña-ka-pidana, di-thuka-kha di-ruku 3sgf-hit-SUB-REM.P.REP 3sgnf-break.INTR-AWAY 3sgnf-fall di-a diha-na-ne 3sgnf-go ART-CL:VERT-FOC.A/S 'She broke a branch, she managed to hit (the evil spirit) on his penis, after she did so, it (the penis) was breaking and falling off.'

(Aikhenvald, 2003:235)

As is conspicuous from (4), Tariana displays head-marking in the sense of Nichols (1986). It is, however, head marking of a 'split system' (cf. Dixon (1994)), where it is only the external arguments of agentive verbs ( $S_a$  in Dixon's terminology) that end up cross-referenced by means of prefixes on the verb; the Theme arguments of stative or inchoative verbs do not trigger cross-referencing. From this perspective it is worthwhile to point out that

in the case of labile verbs as 'break' in (4), the argument of the intransitive variant is also cross-referenced on the verb, although it is interpreted as a Theme/Patient. That seems to suggest that there is at least a class of verbs the argument of which behaves ambiguously: it acts as an  $S_a$  in certain respects, although it is interpreted nonagentively. On the plausible assumption that cross-referencing correlates with external vs internal argument distinction, it seems to suggest that the argument of intransitive 'break' in (4) is in a sense external. I will come back to this issue in the analysis of anticausatives in section 3.1.

In an attempt to account for this kind of cross-linguistic variation the following classes of analyses have been proposed:

1. Universally causative Lexical Semantic Representation (LSR). This is an approach exemplified by Chierchia (1989) Reinhart (1996), Reinhart (2002), Pustejovsky (1995), Levin and Rappaport (1995), Davis and Demirdache (2000) inter alia. The main tenet of these approaches is that the intransitive variant of causative/inchoative alternation is based on and derived from the transitive (causative) one. For example, in Reinhart (2002) the inchoative variant of the alternation is taken to be derived by a lexical operation reducing the arity of the verbal entry, namely Expletivization (External reduction). The result of applying this operation to a causative verb is an unaccusative predicate. In chapter 3 I will argue that inchoative of the anticausative type cannot be equated with the 'real unaccusatives' and that the relevant difference has to be represented in syntax one way or the other. This is because certain syntactic configurations (e.g. Impersonal Passive) are sensitive to the relevant difference. Some conceptual drawbacks of the universally causative LSR approach were mentioned in chapter 1, section 1.1, the most serious of them being duplicating the same kind of information both in the lexicon and in syntax<sup>1</sup>. Another issue is the fact that the approach runs into problems with 'anticausativizing' languages like Hebrew or Polish, unless totally arbitrary and language-specific morphological rules are posited. This is because the morphosyntactic shape of the inchoative variant is not predictable on the basis of the form of the transitive variant. Conceivably, one such morphological rule would be to insert a reflexive clitic in Polish or to redirect a verb to the right binyan in Hebrew as a result of applying a certain lexical operation. In English the same operation wouldn't leave any morphological traces. Such rules, however, could not be systematic, since e.g. in Polish it would not apply to  $gasna\acute{c}$  ('go out') (cf.  $gasi\acute{c}$  ('put out')), but it would to złamać się ('break'). These rules result in envisioning morphological

<sup>&</sup>lt;sup>1</sup>Obviously, this is a fault that holds of *any* lexicalist approach, not only the one deriving intransitives from causatives.

component as guided by rules totally distinct from not only syntactic principles, but also lexicon rules. Worse still, if LSR is causative universally, there is no principled reason why strongly causativizing languages like Salish or Tagalog (cf. Davis (2000) and Travis (2000b) respectively) should manifest a discrete causative morpheme.

Nevertheless, the existence of this type of approach is significant also from my perspective since it builds on some kind of intuition that at least a part of alternating causative/inchoative verbs are in a certain sense or at a certain level 'caused' or 'complex' events. The various approaches within this general current differ on the empirical domain for such an analysis. Thus, e.g. Chierchia (1989) and Reinhart (1996) and subsequent work extend this type of analysis to all verbs with the sole argument interpreted as undergoing some change, including the non-alternating ones. Levin and Rappaport (1995), on the other hand, present a non-homogeneous approach to change-of-state verbs, where the causative lexical entry is proposed only for the alternating ones, but not for non-alternating verbs of existence and appearance. In the present work I will concur with the latter non-homogeneous take on the relevant verbs, although the complex causative nature of anticausative verbs will in fact be present in the syntax.

At this point let us, however, consider the case where the general intuition about the caused nature of alternating verbs is supplemented by concrete arguments, as in Levin and Rappaport (1995). Their two main arguments have to do with:

- (i) selectional restrictions on the Subject of inchoative variants;
- (ii) 'unstable valency' of unaccusative verbs (i.e. ability to develop transitive uses), as opposed to ban on transitive uses of unergatives. Let us consider the first argument. Levin and Rappaport (1995:85) observe that the Subjects of an intransitive variant of the causative/inchoative construction are in fact a subset of the objects of its transitive variant. This is illustrated in (5):
- (5) a. He broke his promise / the world record.
  - b. \*His promise/ \*The world record broke.

According to L&R, if the direction of the lexical rule was from an inchoative to a transitive, then the transitive variants in (5a) would be impossible to derive due to the lack of source entries. Abstracting away from the fact that this argument could just as well be turned upside-down, in other words, it is not clear why the lexical binding of cause rule (i.e. L&R's way of accounting for causative/inchoative alternation) should be blocked in case the verb displays a certain object, there is a more serious reason to suspect that the argument is misconceived. Although L&R try to demonstrate that the phenomenon

is not restricted to less 'literal' uses of the verbs by providing an ungrammatical, yet totally 'literal' use of the verb clear in (6), Marantz (2005:(9d)) disagrees with their judgement and provides grammatical example in  $(7)^2$ :

- (6) a. The waiter cleared the table.
  - b. \*The table cleared.
- (7) The screen quickly cleared.

Similar intransitive uses of deadjectival verb 'clear' are perfectly acceptable in Polish, given enough context:

(8) Podłoga wy-czyściła się sama poprzez ciągłe chodzenie floor $_{NOM}$  pref-clear $_{3sg.f.pst}$  refl itself through constant walking po niej.

on it

'The floor cleared by itself through constant walking.'

The grammaticality of (8) is in striking contrast to (9):

(9) \*Rekord świata sam się pobił poprzez miesiące record $_{NOM}$  world $_{GEN}$  itself refl break $_{3sg.m.pst}$  through months ciężkich ćwiczeń.

 $hard_{GEN.pl}$  exercises<sub>GEN</sub>

intended: 'The world record broke by itself through months of hard excercises.'

This contrast seems to indicate that the relevant restriction does concern idiomatic uses of verbs. If, on the other hand, the idiom configuration is destroyed when the object moves out of the VP, then the ungrammaticality of (5b) is explained<sup>3</sup>. As my analysis of anticausative verbs will involve movement of the sole argument from the object to the subject (thematic) position, it has the potential of accounting for the relevant restriction. Thus, the conclusion is that L&R's argument does not necessarily prove the point it was meant to prove.

Turning now to the second argument originally from Chierchia (1989), i.e. the possibility to develop a transitive variant of unaccusative verbs, as opposed to the lack of such an option with unergatives (cf. (10) vs.)

<sup>&</sup>lt;sup>2</sup>In Marantz (2005) the difference between *clear* (grammatical in the inchoative) and *clean* (ungrammatical in the inchoative) is structural in nature. Although it is clear that causative/inchoative alternation is not fully productive, and the reasons for this might as well be structural, the point that concerns us here is whether the nature of the objects of verbs that otherwise participate in the alternation influences their grammaticality.

<sup>&</sup>lt;sup>3</sup>The reader is also referred to section 4.3.9 for more on degrees of idiom preservation.

- (11) respectively), it seems to me it is incompatible with the Strict Lexicalist Hypothesis.
- (10) The pine needles were deteriorating the roof. (L&R (1995:87))
- (11) \*I sweated/cried/laughed the child.

The problem is that the online creating of the transitive variant of the verb that is normally used as inchoative only, e.g. deteriorate in (10), must belong to the realm of syntax, as the Lexicon is taken in lexicalist theories to be the repository of stored and unpredictable or 'unruly' forms. If, however, it is created in syntax, then the innovative speaker must have access to the lexical information about the dyadic nature if the predicate at LSR. This type of challenge for the strict encapsulation of modules will in fact arise more often, e.g. in relation to adverbial modification (cf. section 3.1). An alternative, syntactic, way to account for the contrast between (11) and (10) is the obvious fact that unergative verbs in (11) already have an external argument (and the light verb shell). Therefore, they cannot add another external argument.

I will in general attempt to use the insight of the causative approach, although not in the lexicalist framework, supplementing it with my own arguments from Polish. Yet, it is noteworthy in this context to observe that the vast majority of accounts in question are based on either Germanic (mainly English) or Romance data. This is, as far as I can see, a considerable drawback since in both cases alternating verbs are in fact 'anticausative' (i.e. covertly in the former, and overtly in the latter case - cf. section 3.1 for discussion). This has given rise to premature generalizations concerning alternating verbs in other languages, which might in fact test differently and have a dramatically different structural analysis, as e.g. in strongly causativizing languages.

- 2. universally inchoative LSR. This approach has one major advantage over the previous one. To wit, it allows compositional semantics to work in parallel with morphosyntax. Specifically, since even the most lexicalist approaches to causatives assume a complex (bieventive) semantic representation for accomplishments of the *break* type, it follows that the semantically simpler structure should be primary with respect to the complex one. The following lexical semantic decomposition is from Dowty (1979):
  - (12) a. Intransitive break [X BECOME broken]
    - b. Transitive break [Y DO SOMETHING] CAUSE[X BECOME broken]

This approach (exemplified by e.g. Pesetsky (1995) and Davis (2000)) is challenged by the existence of 'anticausative' systems. In other words, the challenge is to make additive morphology (i.e. anticausative markers) effectively suppress one of the events. Thus, it seems that anticausatives have to be excluded from the analysis. The morphological problems mentioned with respect to the previous approach, emerge also here, but 'on the other side', so to speak. To wit, there is no way to predict which verbs will be augmented by the causative morpheme, and which won't (as, e.g. labile/ambitransitive verbs).

- 3. variable LSR. The third option is to assume that the lexical semantic representations of a given verb participating in the causative/inchoative alternation differ from language to language. Thus, e.g. in Salishan, strongly causativizing languages the LSR of the concept 'hit' might be taken as simplex inchoative, whereas in Polish it might be thought of as causative. This approach, as noted in Davis (2000), amounts to giving up any semantic bootstrapping in the process of language acquisition (cf. Pinker (1989)). In other words, it is impossible for a child to suss out the subcategorization frames of a given verb from its meaning, since there is no universal meaning (or LSR representation) for a given verb. Within a variable LSR approach it is for instance impossible to characterize the concept BREAK in terms of L&R's features: externally vs internally caused. This is because, given that no evidence for the presence of dyadic structure in the intransitive variant is available in e.g. Lillooet Salish (cf. Davis (2000)), the LSR of BREAK would have to be as in (12a) in Lillooet Salish, but as in (12b) in English. In this case, however, we are simply dealing with two different concepts, and the translation does not in fact reflect the semantic differences between them. The cross-linguistic differences constitute a legitimate point of concern, on which the variable LSR approach builds. Yet, the fact that within this approach there is in fact no way to make any generalizations about the semantics of particular predicates on a universal level, seems to be a serious drawback in view of the fact that the speakers are in fact able to translate concepts. What seems to be needed is identifying the semantics of 'BREAK' that is common to both languages, without compromising the account for the differences between them. From here there is just one small logical step to the concept of ROOT characteristic of syntactic so-called neo-constructionist approaches.
- 4. Syntactic bootstrapping. In view of the problems that the aforementioned analyses must face, there arose a new strand of research (e.g. Marantz (1997), Marantz (2003), Borer (2005), Ramchand (2003)), the main tenet of which is constructionist in spirit. Under the syntactic bootstrapping hypothesis the argument structure of a particular verb

(called also root (Marantz, 1997) or listeme (Borer, 2005)) is contingent on a syntactic environment a given root is embedded in. This approach allows for different degrees of argument structure flexibility in its different instantiations (cf. e.g. an extremely flexible system of Borer (2005) and a more restricted one of Ramchand (2003)). This flexibility flows from the fact that the constructionist approach does away with the notion of LSR. It is noteworthy that this approach is not necessarily incompatible with the cross-linguistic variation in the lexicalization possibilities mentioned in connection with variable LSR approach. Thus, it is open for the possibility that the concept 'BREAK' is not always merged in identical syntactic environments in all languages. Given a parallel syntax-semantics machinery, however - an assumption inbuilt into constructionist approaches- the different syntactic contexts should result in subtle meaning differences. Thus, the grammatically relevant meaning component will come from syntax, and different lexicalization options will bring meaning differences. That is the point where translation might in fact be obliterating things. The root will provide conceptual, possibly quite complex, though not grammatically relevant encyclopaedic content to the structure.

Summarizing the discussion of the various approaches above, let me specify the research goals that I will strive to achieve, or the properties that an ideal theory of argument structure should eventually display. With each objective I will also indicate the kind of solution that will be put forward in the present work.

- 1. Find a systematic and predictable way morphology relates to semantics, i.e. additive morphology should never take away any semantic structure. The problem is particularly acute for anticausative morphology. I will argue that the effect of 'subtracting' semantic (and syntactic) structure in anticausatives is in fact misleading. Anticausatives are in fact structurally complex transitive structures, and the morphology simply allows one argument to fulfill the role of both an external and internal argument.
- 2. Account for the cross-linguistic variation relating to morphology, as well as syntactic diagnostics (e.g. the fact that anticasatives in Polish do test positively for the presence of an external argument or bievental nature, as opposed to bare root inchoatives in Salishan languages). The take on this issue will tie the differences to the lexical accident of a particular language. In other words, the same concept 'BREAK' can be listed in the lexicon as lexicalizing the syntactic structure x in a language X, but a different structure y (e.g. a subset of x) in a language Y. Additionally, the particular 'listing' will in Polish be overtly visible in the shape of a specific conjugation class marker.

- 3. Assuming that argument structure manipulations are syntactic, find a systematic and predictable way syntax relates to semantics, in other words: identify the meaning components that are contributed syntactically. In the present work this is manifested in the decomposition of the macro-event into ResultP, transitional VP<sub>Become</sub>, and a hierarchy of light verbs.
- 4. Find a way to account for the mutual translation potential of concepts, in spite of the morpho-syntactic divergences, i.e. extract ROOTS.
- 5. Account for the flexible nature of certain verbs, where the different configurations are NOT mediated by any morphology (might in fact be treated as a subcase of 1). This relates to English alternating causative/inchoative verbs as well as smaller groups of verbs in other languages, e.g. Tariana (4). I will suggest in section 3.1 that these predicates in English are in fact covert anticausatives. This should not be taken as implying any zero morphology, but rather is keyed to the inherent potential of English verbs to be extremely flexible in terms of their lexicalization possibilities (i.e. the English stem being able to spell out the projections corresponding to the reflexive morphology in other languages).
- 6. In a systematic way account for the restrictions on argument structure flexibility, e.g. the fact that English arrive can never be used in a transitive frame. This, again, will be taken as a language-particular lexical accident. Some non-alternating unaccusative verbs will simply not be listed with the Theme appropriate to spell-out the structure relevant for the causative variant. Any diachronic or speaker-particular innovation in this respect will necessarily involve manipulation of the lexical specification of a given root. This differs from Borer's (2005) answer, where the flexibility of roots with respect to the syntactic structures they are merged in is essentially unrestricted, with the exception of what is traditionally called 'achievement' verbs. The latter verbs are taken to be idioms in the sense of being listenes with partial subcategorization (i.e. involving a covert locative-existential assigning range to an open value in  $Asp_Q$ ). In a certain sense, I assume here that all verbs are idioms, i.e. their lexical entries contain full specification relating to their argumental properties. The cases involving flexibility (be it active vs passive structures, or causative vs inchoative ones) are always manipulated by certain morphology and stem from the squeezing potential of certain morphemes.

The problem of causativizing vs anticausativizing morphology is widely recognized and has received much attention in the literature. Yet, there is another issue related to the mapping between event-type and its morphological representation that has not been addressed with enough attention so

far. The relevant distinction is that between bare roots (as in English) on the one hand, and necessarily 'augmented' roots (as in Slavic, Catalan (cf. Oltra (1999)) or Semitic (cf. Doron (1999) and Arad and Shlonsky (2001)). The only exception that I am aware of is the theory proposed in Déchaine (2003) and I turn to it now.

#### 2.1.2 Autonomous root hypothesis (Déchaine, 2003)

Déchaine (2003) is an example of a theory that patterns together with the constructionist approaches summarised in section 2.1.1. It follows Marantz (1997) and Borer (2005) in assuming that a root is a semantic constant which restricts the denotation of an eventuality. Thus, roots are independent from the  $\nu$ P shell. The novelty of the proposal relates to the following two tenets:

- the way the root merges with a syntactic configuration is reflected in the morphology;
- there is no uniform algorithm for lexical insertion.

The first hypothesis has the advantage of reducing morphology to syntax, and in this way dispensing with the problems of arbitrary morphological rules mentioned in the previous section. The second hypothesis crucially differs from Distributed Morphology 'late insertion' assumption, where insertion of the lexical material takes place once a phase boundary (e.g.  $\nu$ ) is reached. In Déchaine's system, the level at which a root is inserted into the structure is parametrized. This particular parametrization option yields four different systems:

- (13) a. 'early merge' of root into  $VP^4$  e.g. St'át'imcets/Salish b. 'late merge' of root into  $\nu P$  e.g. English/Germanic
  - c. 'early merge' of root inside VP e.g. Modern Hebrew/Semitic
  - d. 'late merge' of root inside  $\nu P$  e.g. Plains Cree/Algonquian

In the case of Semitic (13c) the root is a V-modifier, whereas in Algonquian (13d) it is a predicate-modifier. This is what the 'inside' is supposed to stand for, i.e. the necessary presence of verbal augments.

#### 2.1.2.1 Lillooet Salish (St'át'imcets)

The observation that derives the assumption in (13a) is that bare roots are possible in Salish. This indeed seems to be the case and I have enumerated

<sup>&</sup>lt;sup>4</sup>Déchaine really writes  $\nu P$  in all the four cases. The reason is probably incorporating the inchoative flavor of  $\nu$  - an assumption I do not make (cf. section 1.1). I adapt the formulation for expository reasons.

some in (1).

Furthermore, since root insertion takes place early (at the VP level), bare roots in St'át'mcets have unaccusative syntax (cf. event decomposition in section 1.1) This is in fact the conclusion in Davis (2000). Let me adduce just one of the unaccusativity diagnostics mentioned by Davis (2000), namely different suffixing possibilities for agentive and non-agentive intransitive verbs. There are two 'closely related but distinct suffixes', which are in complementary distribution: -al'm-ən 'want to' attaching to agentive predicates, and -alm-ən 'almost' attaching to non-agentive ones<sup>5</sup>. Bare roots can only take the latter, as illustrated in (14):

- (14) a. tscícw-\*al'm-en/-alm-en 'to almost get there'
  - b. kwís-\*al'm-en/-alm-en 'to almost fall'
  - c. zúqw-\*al'm-en/-alm-en 'to be almost dead, dying'

(Davis, 2000:25)

A further point flowing from the early root insertion is that transitive or unergative verbs (i.e. those that have  $\nu$ -shell) need to be derived by means of an overt transitivizer or intransitivizer. In (15) I illustrate a derived intransitive unergative verb:

(15) [k'ác-cal-ø/\*-as] [ki=sts'úqwaz'-a [s-Laura]]<sup>6</sup> dry-ACT-ABS/\*-ERG COLL.DET=fish=DET NOM-Laura 'Laura did some fish-drying.'

(Davis and Demirdache, 2000:103)

Furthermore, it is the transitivizer that is the locus of agent-orientation. Therefore, bare roots can never be passivized, and they cannot host oblique agents, as shown in (16a). (16b) is a grammatical example of a passivized derived causative verb.

- (16) a. \*qam't (l)=ta=sqáyxw=a ta=twéww'et=a get.hit OBL=DET=man=EXIS DET=boy=EXIS intended:'The boy was hit by the man.'
  - b. qám't-**s-tum** l=ta=sqáycw=a ta=twəw'w'ət=a get.hit-**CAUS-3PASS** OBL=DET=man=EXIS DET=boy=EXIS 'The boy was hit by the man.'

(Davis, 2000:23)

<sup>&</sup>lt;sup>5</sup>It is interesting that derived reflexive verbs in Lillooet also take only -al'm-ən 'want to', and in this respect pattern with unergatives (cf. Davis (2000)). The same conclusion can be drawn for reflexive verbs in Polish - cf. section 3.1.

<sup>&</sup>lt;sup>6</sup>**ACT** stands for Active intransitivizer - cf. Davis and Demirdache (2000).

Thus, all of the diagnostics seem to suggest that bare roots in Salish are unaccusative - the property responsible for the strongly causativizing character of the language.

#### 2.1.2.2 English

I turn now to the case in (13b), namely the Germanic situation, where, according to Déchaine, the root is inserted as late as possible in a given structure and into a  $\nu$ P. Procrastinating the insertion of the root results in the labile/ambitransitive behavior of roots illustrated in (17). If there is  $\nu$  shell present, the root will be inserted there. If that layer is absent, the highest possible root insertion place is into V. This way no morphological extensions are needed in either variant of the causative/inchoative alternation, as well as in unaccusatives (e.g. arrive, fall) and ditransitive verbs (e.g. give, send, etc.). That is because 'whatever is the highest possible insertion site determines the valency associated with root'.

- (17) a. Mary broke the branch.
  - b. The branch broke.

(18)



The above hypothesis forces one to assume a nominalizing or adjectivizing structure embedded under a verbalizer for cases of morphologically derived verbs in English:

- (19) a. denominal transitives: origin-ate, class-ify, symbol-ize
  - b. deadjectival transitives: wid-en, intens-ify, special-ize

A corollary to this is that 'deverbal verbs' are impossible in English. That follows from the assumption concerning the way of inserting the root (i.e. into  $\nu$ P, as opposed to inside  $\nu$ P). Note in this connection the effects that the category changing operation have on the insertion site of root: procrastinating root insertion does not seem to operate across the category-changing heads (in the sense of Marantz (1997)). If it did, absolutely no verbalizing morphology of the -ate, -en, -ify, -ize type would be expected, since the ROOT would have to simply wait until the whole structure is computed and then would be inserted without any augments.

#### 2.1.2.3 Modern Hebrew

The third case is that of Semitic languages, where the root is merged early, but as V-modifier. The empirical fact on which this assumption rests is that bare roots are impossible in Semitic. In order to function as verbs they need to be 'augmented' by means of a vocalic melody. Hebrew displays a system of seven vocalic verbal templates (binyanim), which I illustrate in (20):

(20)

root	binyan	e.g.	category	gloss	valency restriction
$\operatorname{lmd}$	CaCaC	$\operatorname{lamad}$	V	'learn'	${ m tr./intr.}$
$\operatorname{lmd}$	ni-CCaC	$_{ m nilman}$	V	'was learned'	${ m non\text{-}transitive}$
qlp	CiC(C)ec	qilef	V	'peel'	${ m tr./intr.}$
qlp	CuC(C)ac	qulaf	V	'was peeled'	passive
qlt	hi-CCic	hi-qlit	V	$^{\prime}\mathrm{record}{^{\prime}}$	${ m tr./intr.}$
qlt	hu- $CCaC$	hu-qlat	V	'was recorded'	passive
$\operatorname{pll}$	hit- $CaC(C)eC$	hit-palel	V	'pray'	intr.

(adapted from Arad and Shlonsky (2001))

Déchaine (2003) mentioned two purported predictions:

- roots can be selected by certain event-types, resulting in the division of roots into aspectual classes;
- semantic value of a root will be contextually determined.

As far as I can see, however, to the extent that the latter is a valid prediction in a totally flexible and autonomous computational system given the constructionist assumptions, the former seems to have to be stipulated rather than predicted unless something special is said about particular binyanim. The selection between a root and a binyan has to be a lexical idiosyncrasy, i.e. the fact that the root 'qlp' selects for CiC(C)eC (and not e.g. hi-CCiC) is unpredictable as far as I can see. There is at least one binyan that seems to be interestingly restricted to intransitive verbs (hit-CaC(C)eC). For intransitive verbs, however, Déchaine's system would most probably predict early root insertion into V, which should give these verbs unaccusative syntax. Unfortunately, a lot of verbs in this binyan has the semantics which initially is hardly reconcilable with the standard unaccusativity.

Incidentally, note that there is no binyan with a valency requirement of transitivity. In that sense Hebrew binyanim system is similar to Polish conjugation class system, where there are classes restricted to intransitive verbs, but there aren't any restricted to transitive frames. This makes Hebrew and Polish different from languages with causativizing morphology, which require

the presence of two arguments when the verb is causativized, e.g. Salish languages, Turkish or Finnish. Causativizers of the Salish agglutinating type need to be made fundamentally different from Semitic binyanim. One evidence in this direction is Amharic, which has both: causativizing morpheme a(s)-, as well as verbal templatic morphology. Amharic verbal templates fall into three classes:

- (21) a. Type A: CäCCäCä (2nd radical geminated in the perfect only)
  - b. Type B: CäCCäCä (2nd radical geminated throughout)
  - c. Type C: CaCCäCä

Verbs extended by the causative prefix **a-** can occur in all three conjugation classes:

- (22) a. Type A: a-däkkämä (däkkämä 'be tired') Amharic
  - b. Type B: a-bäddärä (bäddärä 'borrow')
  - c. Type C: a-massäna (massänä 'become exhausted')

I take the Amharic facts to crucially call for a distinction between causative augments (in e.g. Salishan languages) and verbalizing augments (in e.g. Amharic, Polish and Hebrew).

The aforementioned root-flexibility in Hebrew, on the other hand, is a welcome result and I illustrate it in (23) with the root  $\sqrt{\text{sgr}}$ :

#### (23) Hebrew

${f template}$	example	${f category}$	${f gloss}$
CaCaC	sagar	V	'close'
hiCCiC	hisgir	V	$\operatorname{`extradite'}$
hitCaC(C)eC	histager	V	'cocoon oneself'
${ m miCCeCet}$	$_{ m misgeret}$	N	'frame'
CeCeC	seger	N	${}^{`}\mathrm{closure'}$
CoCCayim	$\operatorname{sograyim}$	N	`parentheses'

(adapted from Arad and Shlonsky (2001))

In (23) a single root can have different interpretations depending on the kind of verbalizer or nominalizer. The meanings are, again, unpredictable, as expected of derivations below the category defining head on not only lexicalist, but also Marantz's 1997 assumptions (cf. also Arad (2003)).

#### 2.1.2.4 Plains Cree

In Algonquian root insertion is assumed to take place separately from and higher than  $\nu$ P shell, as a predicate-modifier essentially adverbial in nature. It follows then that Algonquian shares with Hebrew the ban on bare roots. More interestingly, however, the root is predicted to be:

- (i) aspectually neutral (where aspectual really amounts to argument structure configuration (cf. Borer (2005) and van Hout (1996) in this respect));
- (ii) it is neutral with respect to subject or object-orientation (in contrast to Salish); agent-orientation is coded by transitivizers, whereas object orientation is coded by so-called 'finals';
- (iii) it has a stable semantic value (probably because it is inserted above  $\nu$ P-shell the domain of idiosyncratic meaning negotiation);
- (iv) it is recursive (due to being adjunct-like).

The first property is illustrated in (24), where separate morphemes are responsible for aspectual characteristics of the structures:

- (24) a. kiskis-i=w Plains Cree remember-PROCESS=3 '(s)he remembers'
  - b. kiskiso-payi=w remember-INCH=3 '(s)he remembered'
  - c. kiskiso-h-ê=w remember-TRANS-anim=3 '(s)he made him/her remember'

Agent-orientation manifests itself in the distinction between indirect, neutral and direct causation covarying with the distinction between animate and inanimate objects. All of these distinctions are coded on causative markers. I illustrate for direct causation only:

#### (25)

```
animate O inanimate O gloss
-m \quad -ht \quad \text{`act on x by mouth/speech'}
-\hat{e}yim \quad -\hat{e}yiht \quad \text{`act on x by thought'}
-n \quad -n \quad \text{`act on x by hand'}
-ihtaw \quad -iht \quad \text{`act on x by hearing'}
```

Object orientation is coded by theme suffixes, which are also sensitive to the type of causation. Thus, affected inanimate objects in indirect and neutral causation take -aw, whereas in direct causation they take -am. Animate objects, on the other hand, are always marked by means of transitive marker  $\hat{e}$ 

Property (iii), i.e. the stability of the semantic contribution of the root is trivially true (cf. e.g. (24)).

The recursive character of root in Algonquian (property (iv)) is illustrated in (26):

(26) a. miyw-êiht- Plains Cree good-TRANS.by.thought.inanim 'consider something good, be glad' b. môsko-miyw-êiht-

cry-good-TRANS.by.thought.inanim
'cry with joy about something' (Déc

(Déchaine (2003)(51))

#### 2.1.3 Problems with Déchaine (2003)

In spite of the major merit of Déchaine's approach, namely accounting for variation among languages with respect to morphological make-up of verbs in different argument structure configurations, the theory has certain drawbacks. The most serious of them is treating the height and the type (i.e. adjunction vs substitution) of root insertion as a parameter. That clearly cannot be the whole story in view of the fact that many languages do not display uniform verbal behaviour throughout the system. Let me illustrate with a somewhat exotic language Tawala.<sup>7</sup>

Tawala (Austronesian - Papuan Tip cluster) is a head-marking language in the sense of Nichols (1986). The subject is cross-referenced on the verb by means of a prefix, whereas the object is marked by means of a suffix. Roots seem not to be augmented, even though a definitive claim requires further research.

Now, causative verbs in Tawala display a variety of morphological shapes. Firstly, they can be morphologically underived (as in (27)). This is the case where the root takes Subject and Object agreement. Secondly, a great multiplicity of roots (at least 50%, according to Ezard's estimation) must add one of a number of derivational prefixes in order to form a transitive (i.e. causative) variant, as in (28).

(27) I-hedal'-i. Tawala 3sg-break-3sg 'He broke it.'

(28) a. I-hilage.
3sg-die
'He/She/It died.'

b. I-li-hilage-ni. 3sg-CAUS-die-3sg 'He killed it.'

(Ezard, 1997:268)

If we assumed low root insertion for Tawala, causativized verbs like (28b) are expected, but underived verbs in (27) are not unless one hypothesizes

<sup>&</sup>lt;sup>7</sup>All the Tawala data from Ezard (1997).

morphological  $\varnothing$  causative morpheme. This last solution, however, seems to be conceptually undesirable since it would have to be assumed for a lot of verbs. In view of the fact that Déchaine's system is tailored to account for the absence vs presence of causativizing morphology in different languages, this move would in effect strip the theory of its merits (the reader is referred to section 1.2 for the arguments against zero morphology). Assuming later root insertion would account for the other part of the data only (i.e. the verbs in (27), but not in (28)).

The problem has a different facet to it as well. To wit, there are intransitive verbs in Tawala, which require both suffixal object agreement and prefixal subject agreement identical in  $\phi$ -features. Ezard calls them 'condition verbs'.

- (29) a. Koiba-hi **hi**-hogo-**hi**. Tawala stomach-3pl 3pl-full-3pl 'They are pregnant.'
  - b. I-li-polo-ya.<sup>8</sup>
    3sg-CAUS-pig-3sg
    'It became a pig.'
    (Ezard, 1997:63)

The fact that the sole argument of the verbs in (29) has to be cross-referenced twice on the predicate could be compared to the so-called 'anticausative' morphology present e.g. in Slavic or Romance. If we take head marking morphemes to reflect agreement with specific syntactic heads, then it seems that the sole argument of the verbs in (29) must be travelling through both the position of the internal argument and the position of the canonical external argument. (29a) might be comparable to so-called *Reflexiva Tantum* (cf. (30a) and (31a)), whereas (29b) is equivalent to inchoative variants of the causative-inchoative alternation (and cf. (30b) and (31b)).

- (30) a. inginocchiar-si ('kneel')

  b. I vetri si sono rotti.

  the glasses refl are broken
  'The glasses broke.'
- (31) a. chełpić **się** ('boast') Polish
  b. Zbyszek **się** ze-świn-ił.
  Zbyszek refl pref-pig-pst.3sg.m
  'Zbyszek became a pig.'(i.e. did something morally unacceptable)

Although late root insertion might still be a valid assumption for Slavic or Romance, as evidenced by the (almost absolute) lack of morphologically

 $<sup>^{8}\</sup>text{-ya}$  and -ni are dialectal forms of 3sg object agreement, as claimed in Ezard (1997).

discrete causatives, for Tawala - a strongly causativizing language - the presence of some special morphology deriving intransitive variants is unexpected. What seems to be lacking is a certain typology of verbs within a language and the criteria necessary for establishing the typology. I will argue in the next section that for Polish the relevant factor delineating the typology is conjugation class suffix.

Thus, we need to assume that the type of root/stem insertion varies not only cross-linguistically, but also within a language (for an argument to the effect that languages form a continuum with different percentages of verbs taking causative or anticausative morphology see Haspelmath (1993)).

### 2.2 Intra-language variation. Themes<sup>9</sup>

In this section I will argue that the existence of 'anticausative' morphology in Polish is due to the fact that most of the verbal stems in Polish are forced to spell-out internally complex events. Strictly speaking, in accordance with the assumptions presented in chapter 1, I will argue that stems of the anticausative-transitive alternation spell out both the Causing and the Caused subevents (i.e. they lexicalize  $\nu+V$ ). This, in turn, stems from the fact that the verbs participating in the causative-inchoative alternation in Polish belong to certain conjugation classes which necessarily lexicalize the  $\nu$  layer. That amounts to revising Déchaine's early/late root insertion hypothesis to the effect that ROOTs (as in the English case) or stems (as in Polish) may lexicalize different subsequences of  $f_{seq}$ . Thus, the purpose of this section is firstly to substantiate the claim that so-called theme vowels, which occur in Polish verbs and which define conjugation classes in Polish, are instrumental in establishing how much structure a given stem spells out. This, in turn, bears on the split intransitivity diagnostics in Polish (adjectival participle formation and so-called -no/to- Impersonal Passive<sup>10</sup>, as well as the obligatory presence of the 'reflexive' morphology in the 'inchoative variant' of causative/inchoative alternation, and in reflexiva tantum). The upshot of the analysis will be that Polish is a language with a very restricted set of unaccusative verbs (essentially, only verbs in -ej- conjugation and inchoative -n- conjugation class). Conjugation classes seem to be significant in other languages as well, e.g. certain types of nominalizations in Brazilian Portuguese seem to display sensitivity to the type of thematic vowel (Bruno Oliveira Maroneze - p.c.). Similar correlations have also been argued to exist for Lithuanian (cf. Arkadiev (2005)) and Georgian (cf. Harris (1981)). For Hebrew, a proposal relating particular templates to a particular syntactic configuration has been made in Doron (1999), and argued against in Arad and Shlonsky (2001).

#### 2.2.1 Defining conjugation classes in Polish

Before I proceed, let me make certain reservations. The present investigation is concerned with the area of grammar (i.e. lexical syntax in Hale and Keyser (2002)'s terms, or First Phase Syntax in Ramchand's 2003 terms),

<sup>&</sup>lt;sup>9</sup>The material in this chapter has been presented at CASTL Colloquium, UiTø (14.02.2004), Workshop on Argument Realization, University of Mainz (26.02.2004), and Poznań Linguistic Meeting, Adam Mickiewicz University (19.05.2004). I thank the respective audiences for useful comments.

<sup>&</sup>lt;sup>10</sup>In the present work, I will only analyse Impersonal Passive constructions. Resultative participle formation, as interesting as it is, will be left for future research, although it clearly correlates with types of Themes as well. The reader is referred to Cetnarowska (2000).

where numerous irregularities and idiosyncrasies are expected to happen. This is because the building blocks of this domain are listed and memorized, as opposed to created online. To begin with, the assignment of a root to a particular conjugation class is determined by historical factors. In effect, there is no way to predict which root will spell out how big a sequence in conjunction with its theme. In some cases real world knowledge might be involved, but not necessarily in all of them. What's more, certain conjugation classes are not productive in Modern Polish. Yet, it is my belief that the massive tendencies displayed by conjugation classes with respect to argument structure configurations, cannot be disregarded and swept under the carpet of diachronic development since they clearly have synchronic syntactic consequences. Thus, most of the conjugation classes I will make strong claims about, e.g. -i/v- conjugation class, and -ej- conjugation class, are very productive and newly coined verbs will end up in those classes, as will become apparent below. Yet, the most productive class, which accommodates borrowings, is the **-owa-** class. The latter, however, does not show any interesting argument structure correlations, i.e. it is either very flexible with respect to the size of the subsequence that it spells out, or else it is also a high Theme, similarly to -i/y-. Pending other strong evidence for either position, I remain agnostic on the status of the -owa- and -a- conjugation classes. Since with these classes all bets are off, they are quite uninteresting for our purposes. It should also be borne in mind, however, that the other classes I refrain from making claims about are all unproductive in Modern Polish (e.g. the -e- class and the -C- class). In these cases, the decision with respect to which syntactic configuration we are dealing with needs to be established on a case-by-case basis, in connection to independent tests available in a language.

Thus, Polish verbs are characterized by the presence of certain morphology intervening between the root and the Tense/Agreement morphemes. This morphology largely determines the conjugation pattern a given root belongs to. The division into conjugation classes is a controversial issue. Some traditional grammars delineate three (e.g. Laskowski (1999)) or four main conjugation classes. For instance in Laskowski (1999) the distinction into main conjugation classes is based on the shape of person-number morphemes. The relevant distinction is presented in 2.1 (adapted from (Laskowski, 1999:236)).

Pers/Num	Ι	II	II
1sg	- ę	- <i>ę</i>	- <i>m</i>
2sg	-esz	-isz	-sz
$3 \mathrm{sg}$	- <i>e</i>	- <i>i</i>	Ø
1pl	-emy	-imy	-my
2pl	-ecie	-icie	-cie
3pl	q	- <i>ą</i>	Ø

Table 2.1: Person/Number suffixes

Since this division is not very informative (it really determines only a three-way distinction: -e vs -i vs  $\varnothing$ ), Laskowski ends up having a multiplicity of subclasses under each conjugation class.

A criterion that Laskowski uses for subdivision is morphophonological alternations. Thus, e.g.  $pisa\acute{c}$  ('write') is classified as class 2a of the first conjugation together with verbs like  $rwa\acute{c}$  ('pluck') because the vocalic stem pisa- and rwa- alternates with the consonantal shortened stem pis- and rwa- in the present tense. I illustrate the Present and Past Tense paradigm for  $pisa\acute{c}$  below:

Ī	Pres 1sg	pisz-ę	Pres 1pl	pisz-emy
	Pres 2sg	pisz-esz	Pres 2pl	pisz-ecie
	${\rm Pres}\; {\rm 3sg}$	pisz-e	Pres 3pl	pisz-ą
ſ	$Past^{11}1sg$	pisa-l-em	Past 1pl	pisa-l-iśmy
	Past 2sg	pisa-l-eś	Past 2pl	pisa-l-iście
	Past 3sg	pisa-ł	Past 3pl	pisa-l-i

Table 2.2: Present and Past paradigm for  $pisa\acute{c}$ 

Under those assumptions however, it remains a mystery why two different stems should be operative in two different tenses.

A similar point can be made about verbs like  $krzycze\acute{c}$  ('shout'), which belong to the second (main) conjugation class. They display three kinds of vocalic alternations: **e:y:a**, according to Laskowski. Thus the infinitive form is  $krzycz-e-\acute{c}$  (shout-e-inf), the Present Tense form is krzycz-y (shout<sub>3sg.prs</sub>), and the Past Tense form is krzycz-a-t (shout<sub>3sg.pst</sub>). Again, these alternations are completely unpredictable when viewed from Laskowski's perspective. There is also no way to defend the generalization that thematic vowels determine the conjugation class, as it is difficult to decide which of the three vowels should be treated as criterial. Obviously, one might simply stipulate that the criterion for establishing a conjugation class are forms of 3 Person

 $<sup>^{-11}</sup>$ I assume for the time being that l is a past tense marker. The past forms inflect for Gender as well. I only provide masculine (in the sg) and virile (in the plural) forms since it does not affect the point.

singular and plural. Yet, this simply begs the question why it should be so. Things are different, however, on a theory such as Rubach (1984), where the exponent of the Present Tense is -e- or -i- (an assumption attributed to Moris Halle's suggestion), the choice between the two allomorphs being conditioned phonologically (i.e. -e- is the default Present Tense, which is raised to -i/y- after a front non-low vowel).

This theory has the advantage of explaining cases like  $pisa\acute{c}$ . The underlying representation is really (32a), Present Tense is (32b) with the effect of Vowel deletion rule shown in (32c). Finally, Past Tense form does not present any problems under the assumption that Past Tense is realized by t.

 $(32) \quad \text{a.} \quad //\text{pis-a-c}//$   $\quad \text{write-a-inf}$   $\text{b.} \quad //\text{pis-a-e}//$   $\quad \text{write-a-T}_{pres}$   $\text{c.} \quad \text{pisz-e-sz}^{12}$   $\quad \text{write-T}_{pres}\text{-2sg}$   $\text{d.} \quad //\text{pis-a-l}//$   $\quad \text{write-a-T}_{pst}$ 

Similarly, cases like  $krzycze\acute{c}$  ('shout') also follow under these assumptions. The underlying representation is really //krzyk-e-e-sz// (shout-Th-T-2sg<sup>13</sup>), which after the application of Raising (i.e. Present Tense  $e \rightarrow i$ ), First Velar Palatalization (i.e.  $k \rightarrow cz$ ) (cf. (Rubach, 1984:112)), Vowel deletion (Rubach, 1984:95) (so-called 'Jakobson rule') and Retraction (Rubach, 1984:203) ends up as a surface form krzyczysz.

For the aforementioned reasons I will base the present considerations on the division into conjugation classes proposed in Rubach (1984). I illustrate major conjugation classes with several examples of each one below.

- -a- stems :  $pis-a-\acute{c}$  ('write'),  $kaz-a-\acute{c}$  ('order'),  $chrap-a-\acute{c}$  ('snore')
- -e- stems : stysz-e- $\acute{c}$  ('hear'), widzi-e- $\acute{c}$  ('see'), szumi-e- $\acute{c}$  ('sough'), leci-e- $\acute{c}$  ('fly' dir. motion)
- -C- stems :  $paś-\acute{c}$  ('graze'), wle(c)-c ('drag'),  $umrz-e\acute{c}$  ('die'),  $zacz-q-\acute{c}$  ('begin')
- -owa- stems :  $bor-owa-\acute{c}$  ('bore'),  $mal-owa-\acute{c}$  ('paint'),  $chor-owa-\acute{c}$  ('be sick'),  $brak-owa-\acute{c}$  ('lack')

 $<sup>^{12}</sup>$ I gloss over the effects of Iotation  $s \to sz$ . The reader is referred to Rubach (1984) for the relevant discussion.

<sup>&</sup>lt;sup>13</sup>Whenever the identity of a particular conjugation class suffix is irrelevant for the point being made in the text, I gloss it as 'Th'.

- -i/y- stems : kos-i- $\acute{c}$  ('mow'), pal-i- $\acute{c}$  ('burn'), krocz-y- $\acute{c}$  ('step'),  $\acute{s}nie\dot{z}$ -y- $\acute{c}$  ('snow')
- -aj- stems : czyt-a- $\acute{c}$  ('read'), gr-a- $\acute{c}$  ('play'), chow-a- $\acute{c}$  ('hide'), gniew-a- $\acute{c}$  ('make angry')
- -ej- stems : siwi-e- $\acute{c}$  ('get grey'), piękni-e- $\acute{c}$  ('get beautiful'), babi-e- $\acute{c}$  ('become effeminated')
- semelfactive -n- :  $kop-nq-\acute{c}$  ('kick once'),  $wark-nq-\acute{c}$  ('snap once'),  $mach-nq-\acute{c}$  ('wave once')
- inchoative -n- : marz-ną-ć ('freeze'), więd-ną-ć ('wither'), sch-ną-ć ('get dry')

As previously mentioned, I will refrain from making any claims about the first three conjugation classes, noting that they are no longer productive. In these classes the decision about the event structure they contain must be made on a case-by-case basis, examining all the available unaccusativity diagnostics. The fourth class (-owa-) is a very productive class and most of the borrowings will be assigned to it. I illustrate below:

- (33) a.  $faks-owa\acute{c}$  ('to fax')
  - b. komputeryz-ować ('to computerize')
  - c. urbaniz-ować ('urbanize')
  - d. forward-ować ('to forward')

This class, however, seems to be indiscriminate with respect to the argument structure configuration, as evidenced by heterogeneous semantics of its members, e.g. it contains stative verbs like brakować ('lack') and chorować ('be sick'), as well as agentive transitive ones, e.g. borować ('bore'), budować ('build').

The remaining five classes, on the other hand, show clear restrictions with respect to the syntactic configuration the roots are embedded in, the surface manifestation of which are argument structure differences.

One final point that I wish to make is that the two last suffixes (i.e. semelfactive and inchoative) are not traditionally included in the conjugation class listings (that is in fact the reason why conjugation class markers have often been referred to as 'thematic vowels'). I will treat them parallelly to other conjugation classes since that results in a uniform system. Furthermore, the claim that the two suffixes (the semelfactive and the inchoative) are distinct seems to me to be uncontroversial in view of the fact that (i) they clearly have different semantics; (ii) they show different phonological behavior in Russian: semelfactive suffix is often stressed in minimal pairs, as opposed to the inchoative one (Eugenia Romanova, p.c.); (iii) they also show different

argument structure correlations, as I will show in sections 2.2.3 and 2.2.6, e.g. semelfactives can be transitive whereas inchoatives cannot.

#### 2.2.2 -i/y- stems $^{14}$

Firstly, it has to be pointed out that a majority of verbs belonging to -i/y-conjugation class are transitive. I list examples in (34):

```
(34) rob-i-ć ('do, make'), otworz-y-ć ('open'), sadz-i-ć ('plant'), jednocz-y-ć ('unite'), smaż-y-ć ('fry'), marszcz-y-ć ('wrinkle, crease'), niszcz-y-ć ('destroy'), pal-i-ć ('burn'), parz-y-ć ('vaporize'), dus-i-ć ('strangle'), kus-i-ć ('tempt'), etc.
```

Most of the causative Object Experiencer verbs also belong to this conjugation:

```
(35) dziw-i-ć ('surprise'), złośc-i-ć ('irritate'), martw-i-ć ('worry'), niepoko-i-ć ('upset'), nudz-i-ć ('bore'), smuc-i-ć ('sadden'), etc.
```

Some of the verbs in this conjugation, however, seem to pose problems for the transitivity hypothesis associated with -i/y.

```
(36) b \in bn-i-c ('drum'), dudn-i-c ('rumble'), dzwon-i-c ('ring'), szele \cdot sc-i-c ('rustle'), t \notin tn-i-c ('pulsate'), tkw-i-c ('stick'), krocz-y-c ('step'), klucz-y-c ('wander around'), kp-i-c ('jest'), posc-i-c ('fast'), t \in skn-i-c ('miss'), sniez-y-c ('snow'), seplen-i-c ('lisp')
```

Note that translations of the verbs in (36) seem to correspond to verbs which have been declared as unergatives in other languages on the basis of language-particular tests (e.g in English \*I rustle the leaves or \*There rustled some leaves and \*the rustled leaves).

Thus it seems that verbs in -i/y- conjugation class are either transitive or unergative. Therefore, I submit that they contain  $\nu^0$  and in this respect are different from unaccusative verbs<sup>15</sup>.

Before I proceed to make a specific proposal, let me consider a group of verbs which might potentially be taken as a counterexample. These verbs are illustrated in (37).

<sup>&</sup>lt;sup>14</sup>The allomorphy is the result of a very late and automatic phonological rule of Retraction (cf. Rubach (1984)).

 $<sup>^{15} {\</sup>rm In}$  several accounts of unaccusative verbs there is a light  $\nu$  layer present (see e.g. Alexiadou and Anagnostopoulou (2003), Legate (2003)), even though its semantic content must clearly be different since it does not introduce an argument. Here I assume that this layer is absent in unaccusatives - cf. section 1.1 for discussion.

(37) stercz-e-ć ('stick out'), becz-e-ć ('bleat, cry'), brzmi-e-ć ('sound'), siedzi-e-ć ('sit'), leż-e-ć ('lie'), sycz-e-ć ('hiss'), szumi-e-ć ('hum'), rycz-e-ć ('roar'), dysz-e-ć ('pant'), brzęcz-e-ć ('buzz'), śmierdzi-e-ć ('stink'), drż-e-ć ('tremble')

Although the infinitive does not show the relevant thematic vowel -i/y-, these vowels occur in the conjugated paradigm:

What is bothersome about these verbs is that their unergative semantics is not so clear any more. E.g. so-called 'position verbs' like 'lie' are unaccusative in numerous languages. Yet, as has been mentioned in section 2.2.1, these verbs are in fact 'fake' specimens of -i/y- class since the 'thematic vowel' is really the one occurring in infinitives (i.e. -e-) and the vowel surfacing in the Present Tense paradigm is an exponent of the Present Tense raised to -i- due to its phonological environment.

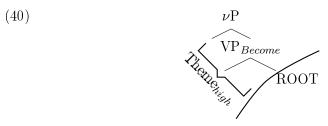
Having dismissed the cases of 'fake' -i/y- conjugation class stems in (37), let me now explain the details of the proposal. Specifically, I propose that -i/y-is a type of word marker, which merges on top of the ROOT and spells out the verbal functional sequence to a high level with the upper bound determined by the last  $\nu$  projection. The specific light verb projections will be independently motivated in later chapters. What is crucial, however, is that the first light verb projection, introducing the causing subevent, is obligatorily spelled out. That is because semantically speaking all of the -i/y- stems display either (i) complex event properties (as in the case of transitives); or (ii) simplex activity-type event properties (as in unergatives). Higher projections of the light verb system will turn out to be only optionally spelled out. Thus, the lexical entry for -i/y- is in (39):

(39) 
$$-i/y$$
-: [ R, V,  $\nu_n$ , ( $\nu_{n+1}$  (, $\nu_{n+2}$  (, $\nu_{n+3}$  (,...))))]

I will refer to this type of a word marker as Theme<sub>high</sub>.

One might envisage different hypotheses at this point. E.g. it might be posited that Theme<sub>high</sub> is simply a morphological exponent of  $\nu$  (essentially equating it with Causative augments) and, as in Déchaine (2003), that this  $\nu$  is modified by the ROOT. The reasons for the present version of the story are both conceptual and empirical in nature. Firstly, treating the ROOT as a V-modifier as in Déchaine (2003) (i.e. the modifier of the theme vowel) seems to be tantamount to assuming that the theme is obligatory, but the ROOT optional, contrary to facts. Secondly, equating the theme vowel with causative morphemes of the Salishan type is a conclusion which seems problematic for languages that have both (e.g. Amharic, cf. the discussion in section 2.1.2.3). Moreover, this particular assumption would result in a prediction that the verbal structure below  $\nu$ P (i.e.  $\text{VP}_{Become}$ ) should be

expressible in Polish on its own, contrary to facts. The structure for high Theme stems is presented in (40):



Theme<sub>high</sub> is lavishly inserted for  $V+\nu+R$ . I also assume, following Ramchand and Svenonius (2002), Ramchand (2003), Romanova (2007), that lexical prefixes are located in the PP complement of RP. As the lexical entry in (39) stands, Themes seem to be only attaching to roots. In other words, it seems that they cannot undergo up-sqeezing. This is because in the lexical entry in (39) the lower projections (i.e. R,  $V_{Become}$  and  $\nu_n$ ) are obligatory <sup>16</sup> . I will argue below, however, that in some cases Themes can compromise its lower projections, as in deadjectival verbs. I will furthermore argue in sections 2.2.3 and 2.2.4 that there is also Theme<sub>low</sub> spelling out only up till  $VP_{Become}$ . If that is so, it is in principle possible that the low Theme will up-squeeze the high one to spell out just  $\nu$ . That situation, however, never arises. In other words, there are no roots which would take two thematic vowels. I will look for a different way to exclude this scenario, allowing Themes to be up-squezed in general, and modyfying the lexical entry in (39) accordingly. It is noteworthy to observe that on a more traditional approach, where Theme<sub>high</sub> would be treated as an exponent of  $\nu$ , there is no reason to exclude Theme<sub>low</sub> stems augmented by adding a Theme<sub>high</sub> (i.e. causativized).

Generally speaking then, Themes simply fill up the structure on top of ROOT. One indication that this in fact might be on the right track is the fact that the Themes are also involved in so-called adjectival passives, as shown in (41). The morphology of adjectival passive participles and eventive/verbal passive participles is identical in Polish, but the use of Auxiliary distinguishes the two (cf. the discussion in section 1.1). In (41) the stative nature of the participle is also guaranteed by the prefixal negation on it.

(41) Trawa jest nadal nie-s-kosz-Ø-on-a. grass is still neg-pref-mow-**i**-prt-sg.f 'The grass is still unmown.'

 $<sup>^{16}</sup>$ Note that the obligatory spell out of all three projections: R,V, $\nu$  holds only within the given lexical entry of Theme<sub>high</sub>: if any of these projections is merged, Theme will have to spell them out. Yet, in general, all of these projections are optional in f<sub>seq</sub>. Thus, optionality of a projection needs to be distinguished from squeezing. To the extent that the latter is indicated in the lexical entry by parenthetical notation, the latter is not marked at all.

Although the Theme<sub>high</sub> is not overtly visible, it leaves traces in the shape of an Iotated preceding consonant. In that sense it seems that participial morphology can help lexicalization at the very low level, even before the Theme gets to spell out the eventive part of  $f_{seq}$  (i.e. transition  $VP_{Become}$ ). If, however, the Theme reaches  $VP_{Become}$ , it cannot stop there, but instead needs to spell out  $\nu$  as well. That fact might suggest that the flexibility of a lexical item might have a more complex facet to it and look as in (42).

(42) 
$$-i/y-: [R(V_{Become}, \nu_n(\nu_{n+1}(\dots)))]$$

The spell out of certain projections might simply be contingent on the spell out of other projections: in the particular case in question,  $V_{Become}$  cannot be spelled out in isolation from  $\nu_n$ . A more detailed discussion of the down-squeezing possibilities of Theme<sub>high</sub> will be included in chapter 4. For our present purposes it is only important to bear in mind that the presence of  $\nu_n$  is necessary in every (eventive) use of -i/y- suffix.

Finally, let us return to unergatives. If  $VP_{Become}$  is missing, as I argued for unergatives in section 1.1, Theme<sub>high</sub> is inserted for  $\nu$  only (and R, if present at all). I partly follow Borer (2005) in assuming that the root does not participate in spelling out the functional sequence in Polish. Yet, I take it to be a language-particular phenomenon.

Having presented the gist of the hypothesis, let me proceed to lay out empirical substantiation of the claim. Firstly, it has to be observed that the -i/y- conjugation class is very productive in the sense that a lot of so-called deadjectival and denominal verbs will occur in this class. In the Distributive Morphology framework it is not so clear that the verbs are actually derived from adjectives or nouns unless there is a clear adjectival or nominal morphology embedded under the Theme. Some of these verbs with their corresponding adjectives or nouns are presented in (43):

```
(43) a. cause to be A:

ob-niż-y-ć (pref-low-Th-inf; 'lower') vs nis-k-i (low-adj-m),

o-brzydz-i-ć (pref-ugly-Th-inf; 'render sth repugnant') vs brzyd-
k-i (ugly-adj-m)

od-chudz-i-ć (pref-thin-Th-inf 'cause to lose weight') vs chud-y
(thin-m)

czyść-i-ć (clean-Th-inf; 'clean') vs czyst-y (clean-m)

brudz-i-ć (dirt-Th-inf; 'dirty') vs brud-n-y (dirty-adj-m)
```

b. cause to have N:

zbro-i-ć ('cause to have armour') vs zbroja ('armour')

o-granicz-y-ć (pref-border-Th-inf: 'limit') vs granica ('border')

ran-i-ć ('wound') vs rana ('wound')

barw-i-ć ('color') vs barwa ('color')

tlen-i-ć ('oxidize') vs tlen ('oxygen')

No overt adjectivizer seems to be present in the verbs in (43a). Note that the verbs in (43a) often seem to also require the presence of the prefix. I provide examples of unprefixed deadjectival or denominal verbs whenever possible, listing prefixed verbs only when no unprefixed variant is possible.

Yet, there are examples of -i/y- stems, where some adjectival morphology seems to be involved in their derivational history, e.g. suppletive comparative degree morphology (as in (44a-b)), or the presence of the adjectivizing morpheme embedded under the conjugation class suffix (as in the remaining cases in (44)). These require a prefix almost as a rule. In the majority of cases the prefix is u-:

(44) u-lepsz-y-ć (pref-better-Th-inf; 'improve')
po-gorsz-y-ć (pref-worse-Th-inf; 'worsen')
u-moż-liw-i-ć (pref-can-adj-Th-inf; 'make possible')
u-real-n-i-ć (pref-real-adj-Th-inf; 'make real')
u-dom-ow-i-ć (pref-house-adj-Th-inf; 'tame')

The comparative suppletive morphology is used in deadjectival verbs in (44) (compare adjectives: *lepszy* ('better') and *gorszy* ('worse')). That seems to be true cross-linguistically and is illustrated in (45) for Norwegian, where the prefixal morphology is also required<sup>17</sup>.

(45) a. for-bedre (pref-better; 'improve') Norwegian
b. for-verre (pref-worse; 'worsen')
c. for-minske (pref-smallest; 'diminish')

In view of this fact I submit that the structure of unambiguously deadjectival -i/y- verbs like u- $mo\dot{z}$ -liw-i- $\acute{c}$  ('make possible') is as in (46):



In (46) the morpheme traditionally conceived of as an adjectivizer is in fact inserted for the lowest functional projection  $\mathbb{R}^0$ . This is also its usual spell

<sup>&</sup>lt;sup>17</sup>This fact will actually be instrumental in establishing the status of analogous predicates in English and Norwegian (cf. section 3.1 for discussion).

out in cases where an adjective (e.g.  $mo\dot{z}$ -liw-y (can-adj-3sg.m; 'possible')) is not embedded in a verbal structure. The ROOT, as is usual in Polish, does not participate in syntax att all. However, contrary to the proposed lexical specification in (42), the Theme does not spell out  $R^0$  in spite of its presence in the structure. In other words, if the Numeration contains an adjectivizer specified lexically for  $R^0$ , Theme will have to be up-sqeezed in order for the derivation to converge. That seems to suggest a slight modification to the lexical entry for Theme<sub>high</sub> in (42):

(47) 
$$-i/y$$
-: [ (R (,V<sub>Become</sub>,  $\nu_n$  (,  $\nu_{n+1}$  (, ... ))))]

Irrespective of the general optionality of RP, the projection in question is also optional in the spell out of Theme<sub>high</sub>. The entry in (47) implies in fact that none of the projections in the lexical entry of Theme<sub>high</sub> is obligatory. Yet, there are certain mutual dependencies between projections (i.e.  $V_{Become}$  implies  $\nu_n$ ). Moreover, the higher light verb projections are also optional, but the analysis yielding this particular result is delayed until chapter 4. The question that arises, however, is what rules out the derivations where the Numeration contains just Theme<sub>high</sub> with the same roots as in (44), but no adjectivizer spelling out  $\mathbb{R}^0$ . In other words, why are the verbs in (48), with no adjectivizer in their derivational history, impossible:

(48) a. \*
$$u$$
- $mo\dot{z}$ - $i\dot{c}$  (pref-can-Th-inf)  
b. \* $u$ - $real$ - $i$ - $\dot{c}$  (pref-real-Th-inf)  
c. \* $u$ - $dom$ - $i$ - $\dot{c}$  (pref-house-Th-inf)

The other side of the same coin is: why don't the roots in (43a) participate in deadjectival derivations (e.g.  $*ob\text{-}nis\text{-}cz\text{-}y\text{-}\acute{c}$  (pref-low-adj-Th-inf),  $*u\text{-}brud\text{-}n\text{-}i\text{-}\acute{c}$  (pref-dirty-adj-Th-inf)). Unfortunately, that seems to be just the way it is. In other words, it seems to be a lexical accident of Polish, in the same sense that roots are listed with specific Themes. Thus, an entry for a root participating in the deadjectival derivation must include the information about adjectivizer as well:

(49) 
$$\sqrt{mog} + -liw - + Th_{high}$$

A further question that arises and which I will not be able to answer here is why the prefix should be necessary in the case of 'deadjectival' -i/y- stems. As for suppletive comparative morphology embedded under the high Theme, I will not offer an exact explanation for it either. Under the present assumptions, however, it is evident that the Theme in deadjectival derivations needs to take a complement that already includes whatever it is that is the complement of the degree head, displaying suppletive stems. It cannot, however, include the degree head itself since regular comparative degree morphology cannot be embedded under high Theme:

(50) a.  $po\text{-}grub\text{-}i\text{-}\acute{c}$  (pref-thick-Th-inf, 'make thick(er)') vs \* $po\text{-}grub\text{-}sz\text{-}y\text{-}\acute{c}$  (pref-thick-**deg**-Th-inf)

Thus, this fact seems to suggest that the Theme in deadjectival derivations embeds a little bit of a functional sequence instead of merging directly on top of a ROOT in (Borerian) Lexical Domain - precisely the structure suggested for deadjectival derivations.

Finally, in the cases where the prefix is not necessary, and there is no overt adjectivizer (cf. (43a)), the Theme identifies  $\nu+V$  (+R), as usual, and there is no adjectivizer in the derivational history.

As for unambiguously denominal verbs, they are very hard to find. One of the examples is a neologism coming from a famous quote from Jan Kobuszewski in (51). Note that the productivity of the -i/y- class with neologisms is considerably diminished due to the fact that it is in a serious competition with the -owa- class, which is indiscriminate with respect to argument structure.

(51) Łatwiej kijek ob-cien-k-owa-ć niż go potem po-grub-as-i-ć. easier stick pref-thin-adj-Th-inf than him later pref-fat-n-Th-inf 'It's easier to make the stick thinner that to thicker it later on.'

The -i/y- stem in (51) contains a nominalizing suffix -as (grubas ('a fat man')). Note that in this case the prefix is obligatory, i.e. \*grub-as-ić is an impossible form, even as a neologism. This, however, is an exception and any attempt to verbalize a nominalization by means of -i/y- Theme is unsuccessful. This stands in opposition to a very productive -owa- class (compare (52) and (53) in this respect) and in fact corroborates the indiscriminate nature of -owa- mentioned above.

- (52) a. \*dom-cz-y- $\acute{c}$  (house-dim-Th-inf; from dom-ek ('little house'))
  - b. \*siostrz-enicz-y-ć (sister-n-Th-inf; from siostrz-enica ('niece'))
  - c. \* $\dot{z}\acute{o}tt$ - $o\acute{s}\acute{c}$ - $i\acute{c}$  (vellow-n-Th-inf; from  $\dot{z}\acute{o}tt$ - $o\acute{s}\acute{c}$  ('vellowness'))
- (53) a.  $rezys-er-owa-\acute{c}$  (direct-or-Th-inf; 'to direct')
  - b.  $jaj-eczk-owa-\acute{c}$  (egg-dim-Th-inf; 'to ovulate')
  - c. butel-k-owa-ć (bottle-dim-Th-inf; 'to bottle')

Thus, it seems justified to conclude that the purported denominal verbs in (43b), in spite of giving the impression of being derived from nouns, in fact involve a categoryless root and the whole  $f_{seq}$  on top of it is lexicalized by Theme<sub>high</sub>.

Having established the derivation for deadjectival and purportedly denominal verbs in (44) and (43b), I would like to come back to intransitive -i/y-stems in (36). For Ramchand, the sole argument of these verbs would prob-

ably be the Subject of both  $\nu P$  and VP (i.e. INITIATOR-UNDERGOER, cf. section 1.1 for discussion) since for her VP is always necessarily present and has an EPP feature. Since I have assumed, however, that VP can be missing, I will take the derivation of these verbs to involve the Theme<sub>high</sub> identifying only  $\nu$ . These verbs can sometimes take 'fake' objects. In the majority of cases these objects will take Instrumental case in Polish<sup>18</sup>:

(54) a. dzwonić kluczami (ring keys<sub>INSTR</sub>; 'to ring with the keys') b. tętnić życiem (pulsate life<sub>INSTR</sub>; 'to pulsate with life')

To sum up, we have three different structures for the verbs in -i/y- conjugation class, the common denominator for all of them being the stem spelling out the functional sequence up until (and including)  $\nu$ . I illustrate the derivations for the three types of verbs: causative/inchoative  $niszcz-y-\acute{c}$  (destr-Th-inf; 'destroy')<sup>19</sup>, deadjectival  $u-mo\dot{z}-liw-i-\acute{c}$  (pref-can-adj-Th-inf; 'make possible'), and unergative or fake transitive  $tetn-i-\acute{c}$  (puls-Th-inf; 'pulsate').

- (55) causative/inchoative  $niszcz-y-\acute{c}$ 
  - a.  $[\nu_P \ \nu^0 \ [VP_{Become} \ DP \ V^0 \ ]]$ b.  $[\nu_P \ \nu^0 \ [VP_{Become} \ DP \ V^0 \ [RP \ t_{DP} \ R^0 \ [PP \ t_{DP} \ P^0 \ ]]]]$  $\vdash \quad i/y \longrightarrow i/y$
- (56) deadjectival u- $mo\dot{z}$ -liw-i- $\acute{c}$

a. 
$$[\nu_{P} \ \nu^{0} \ [\nu_{PBecome} \ DP \ V^{0} \ [n_{P} \ t_{DP} \ R^{0} \ [n_{P} \ t_{DP} \ P^{0}]]]]$$
  
b.  $*[\nu_{P} \ \nu^{0} \ [\nu_{PBecome} \ DP \ V^{0} \ [n_{P} \ R^{0} \ [n_{P} \ P^{0}]]]]]$   
 $\vdash \quad i/y \quad -liw \quad pref$ 

(57) unergative/ fake transitive tetn-i-ć

a. 
$$[\nu_P \ \nu^0 \ [(Appl_P) \ DP \ Appl^0]]$$
  
b.  $[\nu_P \ \nu^0 \ [_{RP} \ DP \ R^0 \ [_{PP} \ P^0]]]$   
 $\vdash \quad i/y \longrightarrow i/y \longrightarrow pref$ 

I follow Marantz (2003) in assuming that the crucial contrast is the one between verbs whose constants (i.e. Ramchand's lexical encyclopaedic content) name manners and do not necessarily embed a change of state (as in (57)) vs verbs whose constants name and necessarily embed a change of state (as in (55) and (56)). Verbs which name manner only (i.e. unergatives and fake transitives) can take an object introduced by low Applicative head (following Marantz (2003)), which however is not a predication relation, as opposed to RP. Thus, in (55)[a] there are two predication relations: Causing Process in

<sup>&</sup>lt;sup>18</sup>Although, in principle ACC 'fake' objects are also possible.

<sup>&</sup>lt;sup>19</sup>Note that this is different from English *destroy*, which does not participate in the causative/inchoative alternation.

 $\nu$  and Caused change-of-state in V for the causative-inchoative. In (55)[b] and (56a) there are three predications: Causing Process in  $\nu$ , caused change-of-state, and caused Resulting State in RP. Finally, (57) involves only one predication relation instantiated by  $\nu^0$ .

Furthermore, there are certain assumptions involved in (55)-(57) that have not been explicated so far. Firstly, I assume that R<sup>0</sup> always takes a PP as a complement (possibly as a subsequence of  $f_{seq}$ ). The lexical prefix is the spell out of  $P^0$ . That means that in unprefixed (55)[a] the Theme cannot possibly spell out  $R^0$ , since the presence of RP would always be signalled overtly by the prefix. This is in accordance with the general optionality of RP. On the other hand, whenever the Theme spells out R<sup>0</sup> as well, the prefix has to occur. In deadjectival derivations (56) the presence of RP is guaranteed due to the lexical specification of -liw-, which always spells out R<sup>0</sup>. However, a further assumption that I make is that the latter morpheme spells out also P<sup>0</sup>. In order to see the underlying reasons for that particular move, one has to examine the interaction between the typology of high Theme stems established in (55)-(57) and lexical prefixes. For the distinction between lexical (internal) and superlexical (external) prefixes, the reader is referred to Isačenko (1960), Romanova (2003), Ramchand (2004), Svenonius (2004), di Sciullio and Slabakova (2005)). For the exposition's sake let me just observe that lexical prefixes very often contribute unpredictable meaning differences, have commonly spatial semantics, and undergo Secondary Imperfectivization. Both causative/inchoative, as well as unergative verbs are allowed to take lexical prefixes, as shown in (58) for the former, and (59) for the latter:

- (58) o-tworz-y-ć (pref-ROOT-Th-inf; 'open'), roz-toż-y-ć (pref-put-Th-inf; 'unfold'), wy-pal-i-ć (pref-burn-Th-inf; 'outburn')
- (59) roz-śnież-y-ć (pref-snow-Th-inf; 'distribute by snowing'), prze-kroczy-ć (pref-step-Th-inf; 'step across sth'), roz-dzwon-i-ć się (pref-ring-Th-inf refl; 'go into ringing')

On the other hand, deadjectival verbs cannot add lexical prefixes:

(60) \*wy-u- $mo\dot{z}$ -liw-i- $\acute{c}$  (pref-pref-possible-Th-inf), \*roz-po-gorsz-y- $\acute{c}$  (pref-pref-worse-Th-inf)

One obvious solution presents itself with respect to ungrammaticality of (60). One might suggest that the reason why deadjectival verbs resist taking lexical prefixes is because they already have a lexical prefix, i.e. u-. As there is only one slot for a lexical prefix, no other prefix is allowed. Yet, there is some indication that this answer is not on the right track. Firstly, u- does not seem to have the spatial semantics characteristic of lexical prefixes, nor does it add idiosyncratic meaning component, as lexical prefixes usually do. Secondly, there are other deadjectival verbs without any prefixes, which still

display the relevant restriction (see section 2.2.4 for more on these verbs):

```
(61) a. głod-n-ie-ć
hungr-adj-Th-inf
'to become hungry'
b. *przy-/*pod-/*wy-/*roz-głod-n-ie-ć
pref-/pref-/pref-hungr-adj-Th-inf
```

If, however, the adjectivizer spells out the whole subsequence starting on top of the ROOT up till RP, then it follows that no other spell out of PP can be present. Consequently, it is impossible to augment deadjectival derivations by means of lexical prefixes.<sup>20</sup>

A further prediction related to the Theme hypothesis is that if a given root names a change-of-state and at the same time takes Theme<sub>high</sub> -i/y-, the lower predication relation will never be expressible on its own. This is because the stem always needs to fill up the  $f_{seq}$  up to the level introducing a Causing subevent (and, consequently, implied external argument). That prediction is confirmed, as shown in  $(62)^{21}$ :

```
(62) a. *Drzwi o-tworz-y-ły.
door pref-open-Th-pst.3pl.nonvir
intended: 'The door opened.'
b. *Sukienka z-niszcz-y-ła.
dress pref-destr-Th-pst.3sg.f
intended: 'The dress got destroyed.'
```

It needs to be emphasized again that the Theme<sub>high</sub> is crucially different from causative morphemes or transitivizers in languages like Salish (cf. section 2.1.2.1, but also 3.1.4). In these languages the root can always name either the transition predicate, i.e. its lexical specification approximates the one of Polish Theme<sub>low</sub> (cf. next section), or else Resulting State. The Causing subevent can be added independently. I submit that the reason for this difference is that Polish does not possess an item that would spell out the structure starting from  $\nu$ . The lexical entry for such a transitivizer would have to be as in (63):

(63) Transitivizer X: 
$$[\nu_n (, \nu_{n+1} (, \nu_{n+2} (,...)))]$$

 $<sup>^{20}</sup>$ One additional prediction stemming from the hypothesis that the Theme can spell out  $R^0$ , in conjunction with the hypothesis that RP always embeds a PP is the following. In cases where the Theme is forced to spell out just R (since no other head present in its lexical specification is projected), we expect to necessarily see a lexical prefix. The relevant context involves stative adjectival participles (cf. section 4.1): all the unprefixed participles end up interpreted eventively. At this point I only mention this prediction since the relevant constructions will be discussed in chapter 4.

<sup>&</sup>lt;sup>21</sup>At this point I abstract away from the possibility to express an inachoative predicate adding the reflexive clitic. This scenario will be analysed in section 3.1.

Turning now to unergatives/fake transitives in (57), there is no embedded predicate there. The only predication relation is  $\nu$ . The object, if any, can be introduced in two ways:

- (i) if the macro-event is augmented by RP, the DP inner Subject of the stative predicate (i.e. RESULTEE) will be introduced in Spec,PP and moved to Spec,RP, as in (57)[b];
- (ii) if low Applicative head is added, a 'fake' object can be introduced by this head, in spite of not being an 'inner Subject', as in (57)[a]. This situation corresponds most probably to Ramchand's rhematic complement, where the DP further specifies the event, but does not contribute any subevent of its own.

The question how to distinguish between verbs that embed a predicate, and verbs whose objects are participants in an applicative relation, but not true objects is a subtle one. Firstly, verbs in (57) will often be intransitive and will more easily allow object drop. Secondly, these verbs will not participate in the causative-inchoative alternation, even if transitive. This is because ApplP, not being a predication relation, will not be expressible on its own. Thus, the usual way to derive an inchoative variant out of high Theme stems in -i/y- is by means of the reflexive marker. Yet, for the fake transitive verbs in (57) an attempt to derive an inchoative in (64) fails. (64) can only be interpreted with an unspecified human agent, i.e. as a type of Passive (another use of the reflexive marker - cf. chapter 5). Yet, it cannot receive an inchoative interpretation 'the grass got mowed' or 'the dinner got made'<sup>22</sup>.

- (64) a. Trawa kos-i-∅ się. grass mow-Th-prs.3sg refl 'The grass is being mowed.'
  - b. Obiad rob-i-Ø się.
     dinner do-Th-prs.3sg refl
     'Dinner is being made.'

Although this prediction hinges on a particular way to conceive of inchoative variants of causative/inchoative alternation (i.e. that they involve  $VP_{Become}$  only - a hypothesis which I reject in section 3.1), it suffices for our present purposes. In subsequent chapters I will revise it to the effect that the reflexive clitic present in the 'inchoative' variant of caus/inch alternation is only sensitive to the arguments bearing  $\Theta$ -roles, i.e. inner Subjects. Therefore, it cannot cooccur with arguments introduced by Applicative.

Having said this, let me highlight another prediction stemming from the comparison of causative/inchoative verbs in (55) and unergative verbs in (57).

 $<sup>^{22}</sup>$ It probably would be an overstatement, however, to claim that the fake transitive structure is the only reason why verbs do not participate in the causative/inchoative alternation. In other words, for verbs like murder or assassinate the flexibility restriction most probably stems from a different source.

To wit, since causative/inchoative verbs are obligatorily transitive (because their stems spell out complex macro-event consisting of two predication relations), their RP (if present) will never be able to introduce an 'unselected' argument in the Specifier. Or, more strictly speaking, it can introduce an argument, but this argument has to be identical in selectional requirements to the argument in Spec, VP (i.e. Subject of Transition). This is possibly due to the fact that there is only one ACC Case available for the object. Strictly speaking, however, one might imagine having three arguments and assigning inherent Case to one of them (say, Subject of Transition). That situation never arises. In other words, Subject of Transition (if this projection is present) always seems to be identified by the same DP that identifies Subject of Result, creating RESULTEE-UNDERGOER. This might well be due to real world-knowledge. This in turn means that no change in selectional properties can be involved with causative/inchoative verbs when the lexical prefix is added. Unergative or fake transitive verbs in (57), on the other hand, always have an option of introducing an 'unselected object' by means of RP. Both sides of this prediction are indeed confirmed, as shown in (65) and (66). Causative/inchoative verbs in (65) might add lexical prefixes, but the properties of objects are never changed.<sup>23</sup> Verbs in (66), on the other hand, freely display unselected objects:

- (65) a. Okno krzyw-i-ło się. window $_{NOM}$  tilt-Th-pst.3sg.neut refl 'The window was tilting.'
  - b. Maria **prze**-krzyw-i-ła okno.

    Maria pref-tilt-Th-pst.3sg.f window<sub>ACC</sub>

    'Maria tilted the window aside.'
  - c. Kamień krusz-y-ł się.  $stone_{NOM}$  crumble-Th-pst.3sg.m refl 'The stone was crumbling.'
  - d. Marek **ob**-krusz-y-ł kamień. Marek pref-crumble-Th-pst.3sg.m stone $_{ACC}$  'Marek crumbled the stone into pieces.'
- - b. Maria **ob**-sadz-i-ła grządkę (kwiatkami). Maria pref-plant-Th-pst.3sg.f patch $_{ACC}$  (flowers $_{INSTR}$ ) 'Maria planted the patch with the flowers.'

<sup>&</sup>lt;sup>23</sup>I illustrate with anticausative variants of these verbs, in order to show that the relevant verbs are alternating. This is not to be taken as 'unaccusatives'. Again, the detailed analysis of anticausatives has to be postponed until section 3.1.

- c. Maria mów-i-ła bzdury. Maria speak-Th-pst.3sg.f rubbish<sub>ACC</sub>. 'Maria was talking nonsense.'
- d. Maria **ob**-mów-i-ła Marka. Maria pref-speak-Th-pst.3sg.f Marek<sub>ACC</sub> 'Maria talked behind Marek's back'

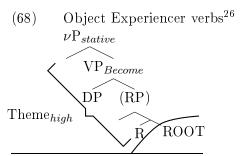
The consequence of different embedding possibilities under  $\nu P$  is the fact that there will never be any conjugation class suffix which would require obligatory transitivity. Yet, there will be low Themes which require obligatory intransitivity, as we will see in section 2.2.3 and 2.2.4. This is also true of Hebrew binyanim (compare (20)). This is another feature distinguishing Themes from causative augments. The latter, when added to a verb, will require an embedded inner Subject (in Spec,VP), since the verb without a Causative augment is self-sufficient, so it should be predicated of some Subject. That, in effect, will make all causativized verbs necessarily transitive.

As stated in section 1.1, I do not assume that the Cause relation is encoded on  $\nu$ . In other words, there is no 'causative flavor' of  $\nu$ . This is because, as observed by Marantz (2003), CAUSE is a relation between eventualities of any sort. In this sense, one can in principle derive complex embeddings which do not have labels in a Vendlerian system: State can cause Activity, Activity can cause State, Activity can cause Transition, etc.<sup>24</sup> From this perspective it is important to note that a lot of Object Experiencer

(67) dziw-i-ć ('surprise'), złośc-i-ć ('irritate'), martw-i-ć ('worry'), niepoko-i-ć ('upset'), nudz-i-ć ('bore'), smuc-i-ć ('sadden'), etc.

verbs are -i/y- stems (cf. (35), repeated here as (67)):

Under current assumptions the structure of these would be identical to the structure of causative/inchoative verbs in (55) except for the nature of the causing subevent, which in this case would be stative<sup>25</sup> by hypothesis.



 $<sup>^{24}{\</sup>rm Cf.}$  also Ramchand's Principle of Event Decomposition, which, however, is crucially restricted to State-Process-State sequence.

<sup>&</sup>lt;sup>25</sup>All Object Experiencer verbs allow coerced agentive readings with a greater or lesser degree of resistance. I disregard these readings here.

## Morphological 'causativization'

A further interesting point to the effect that the conjugation class suffix -i/y- has some clearly definable syntactic consequences is morphological causativization in Polish. There are not many morphological causatives of (what looks like) unergative verbs in Slavic. Yet, every case of morphological causativization seems to require changing the conjugation class to -i/y-, as shown in (69):

```
(69) a. sp\text{-}a\text{-}\acute{c} ('sleep' - fake -i/y- class<sup>27</sup>), u\text{-}\acute{s}p\text{-}i\text{-}\acute{c} ('put to sleep' - true -i/y- class) b. pi\text{-}\acute{c} ('drink' - stem in -j-), po\text{-}i\text{-}\acute{c} ('make drink' - -i/y- class) c. pa\acute{s}\text{-}\acute{c} ('fall' inchoative -n- class) pu\acute{s}c\text{-}i\text{-}\acute{c} ('drop' -i/y- stem)
```

If the causative transitive variants in (69) were to be derived from the intransitive ones, that would necessarily imply that the embedded predicate is unaccusative. This is because the Theme -i- spelling out  $\nu$  could only embed unaccusative  $VP_{Become}$  (i.e. on the traditional assumptions where morphemes are inserted into terminals). The 'unaccusative' status of the intransitive verbs in (69) is not so obvious, however, in view of the possibility to (impersonally) passivize (69a) and (69b) (cf. also section 3.2). (70) is returned by Google search.

(70) W ostatnią noc spa-n-o także na betonie ... at last night sleep-PASS-o also on concrete 'Last night people slept also on the concrete...'

Moreover, deriving one from the other would imply the presence of two Themes. This is hardly detectable, but admittedly, by Jakobson's rule (cf. Jakobson (1948)) VV sequence would anyway be simplified (e.g.  $e + i \rightarrow i$ ). In one case, however, where the conjugation marker contains a consonant (as in inchoative -n- stems in (69c)), this consonant should not drop out in the causative, if it was to be derived from intransitive, contrary to fact. More importantly, in the present system it is not clear what the role of the two Themes stacked on top of each other would be, since only one (i.e. the unambiguously high Theme -i-) could fulfill the role of  $f_{sea}$  filler.

Although the number of such pairs is hardly sufficient to allow any serious generalizing, I conclude that the pairs of verbs in (69) are unrelated one to the other. What is crucial, however, for our present purposes, is that all of

<sup>&</sup>lt;sup>26</sup>Needless to say, whenever RP is present, PP with a lexical prefix will also be present. I gloss over this detail in (68).

<sup>&</sup>lt;sup>27</sup>The exact conjugation class status of this verb is hard to establish due to morphological irregularities in the paradigm. However, it contains -i- in the inflected paradigm and is therefore comparable to the verbs in (37).

the causative variants display the high Theme -i/y.

#### Motion verbs

Another domain, where the Theme -i/y- has strictly defined syntactic consequences is motion verbs. There is a distinction in Polish between directed motion verbs (which have an inherent specification for direction and may occur with directional PPs) and non-directed verbs of motion (with no direction specified). The pairs are based on the same root. Interestingly, the non-directed motion verbs end up in either -i/y- or -aj- conjugation class. At this point I only illustrate -i/y- stems, but cf. table 2.6 in section 2.2.8 for the relevant -aj- stems.

dir. motion	class	non-dir. motion	class	gloss
nieść	C-stem	nosić	-i- stem	'carry'
wieźć	C-stem	wozić	-i- stem	'transport'
iść	irreg.	chodzić	-i stem	'go/walk'

Table 2.3: Motion Verbs I

Motion verbs without an inherent end-point seem to be good candidates for encoding a Process. This is because their semantics entails an argument agentively involved in the activity that does not in itself possess any culmination or telos (i.e. Vendlerian Activity). Therefore, Table 2.3 in effect seems to corroborate the event decomposition assumed in section 1.1 and the analysis of the suffix -i/y- as a high Theme spelling out processual  $\nu$ . Furthermore, it is important to point out that non-directed motion verb stems are used whenever the Progressive reading of directed motion verbs is required. I.e. non-directed stems are Secondary Imperfectives (henceforth, SI) of directed motion verbs. This is shown in (71) by means of Maslov's test, i.e. the use of historic present.

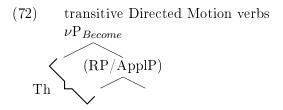
(71) Maria wy-chodz-i-∅ z pokoju, a tu nagle...

Maria pref-go<sub>non-dir</sub>-Th-pres.3sg from room, and here suddenly...

'Maria is walking out of the room and suddenly...'

Although the verb in (71) does have a specified beginning point (and in this sense is a directed motion verb), its Progressive reading cannot possibly be expressed with the directed motion stem. Instead, the high Theme -i/y-stem is used. This fact will become important in section 2.2.8. For the time being let me just observe that -i/y- suffix seems to entail the Activity-inprogress reading in non-directed motion verbs. The fact that non-directed motion verbs can be either transitive or intransitive makes one adopt the structure in (57) for these verbs. This structure, however, will cause certain theory-internal problems related to the selectional requirement of Secondary Imperfective (cf. section 2.2.8). Therefore, I suggest that this is in fact the

case where we deal with the light verb that has Transitional semantics. I label it  $\nu_{Become}$ :



It needs to be borne in mind, however, that for some of intransitive directed motion verbs an unaccusative analysis (i.e. without  $\nu$ -layer) is available (cf. section 2.2.3 for the discussion of the relevant structural configuration). This might be the case of directed motion  $i\acute{s}\acute{c}$  ('go/walk'), which is ungrammatical in Impersonal Passive. In this sense the structure in (72) does not hold of directed motion verbs as a group. What is crucial for the purpose of this section, however, is that no -i/y- conjugation marker can be involved with directed motion verbs.

#### Summary of results

Recapitulating the results of this section, I have tried to show that the suffix -i/y- defining a conjugation pattern correlates with either processual semantics (i.e. ACTIVITY) whenever agentive verbs are involved, or stative semantics (as in the case of Object Experiencer verbs). Therefore, I argued for the analysis of -i/y- as a Theme<sub>high</sub> specified in the lexicon as spelling out the functional sequence on top of the ROOT and up until  $\nu$ . As such it requires lavish insertion. Embedding possibilities under the Process/State subevent, however, are of three types (cf. (55)-(57)) and each root contains this detailed feature specification in its lexical entry. These are equivalents of Ramchandian categorial features, mutatis mutandis. Whenever there is an embedded predicate present (i.e. VP<sub>Become</sub>), the root will be obligatorily transitive (the reflexive variant aside for the time being). When there is no embedded predicate, the root will simply name the manner of Activity with Objects being introduced by means of  $Appl_{low}^{0}$  (or as Rhemes in Ramchand's terms). With deadjectival verbs, the adjectivizer will be inserted to spell out the  $f_{seg}$  up until  $\mathbb{R}^0$ . Only then will the Theme attach spelling out its lexical specification up until  $\nu$ . As a way of summary, I present the typology of verbs with their lexical entries below. (73) illustrates the possibilities of spell out for -i/y. The optionality of  $V_{Become}$  and  $\nu$  is based on the fact that high Themes occur also with stative adjectival participles (cf. section 4.1 for the discussion of the relevant structures).

(73) a. 
$$\mathbf{i}/\mathbf{y}_1$$
:  $[(\mathbf{R}\ (,\mathbf{V}_{Become},\ \nu))]$  caus/inch b.  $\mathbf{i}/\mathbf{y}_2$ :  $[(\mathbf{R}\ (,\mathbf{V}_{Become},\ \nu_{stative}))]$  Object Experiencer c.  $\mathbf{i}/\mathbf{y}_3$ :  $[(\mathbf{V}_{Become},\nu)]$  deadjectival

d. 
$$\mathbf{i}/\mathbf{y}_4$$
:  $[(\mathbf{R}(,\nu))]$  unergative e.  $\mathbf{i}/\mathbf{y}_5$ :  $[\mathbf{Appl}, \nu]$  fake transitive

Considering the fact that transitive verbs generally has an option of switching between stative and agentive readings,  $\mathbf{i}/\mathbf{y}_1$  and  $\mathbf{i}/\mathbf{y}_2$  could in fact be collapsed. Furthermore,  $\mathbf{i}/\mathbf{y}_3$  specification will simply follow from the presence of an adjectivizing morpheme in the lexical entry of a given root. Thus, the only remaining distinction is the one between verbs which do take 'fake object' (i.e. spell out Appl) and those that don't. This way we are left with:

(74) a. 
$$\mathbf{i}_1$$
: [(R (,V<sub>Become</sub>,  $\nu_{ag/st}$ ))]  
b.  $\mathbf{i}_2$ : [(R (, $\nu$ ))]  
c.  $\mathbf{i}_5$ : [ Appl,  $\nu$ ]

These different possibilities of spell out stem from (i) the general optionality of both RP and  $VP_{Become}$ , and (ii) the potential of the Theme to compromise its lower boundary, i.e. to get up-sqeezed. All of them, however, are related to one lexical entry:

(75) 
$$-\mathbf{i}/\mathbf{y}$$
-: [(R (,V<sub>Become</sub>,  $\nu_{ag/st}$ ))]

Thus, the lexical entries for particular roots will look as in (76):

```
(76) a. causative/inchoative, e.g. \sqrt{niszcz} + \mathbf{i}_1 ('destroy')
b. Object Experiencer, e.g. \sqrt{smut} + \mathbf{i}_1 ('sadden')
c. deadjectival, e.g. \sqrt{mog} + -\mathbf{liw} + \mathbf{i}_1 ('make possible')
d. unergative, e.g. \sqrt{snieg} + \mathbf{i}_2 ('snow')
e. fake transitive, e.g. \sqrt{sadz} + \mathbf{i}_3 ('plant')
```

The following arguments have been adduced in favor of the Theme<sub>high</sub> analysis of -i/y- suffix:

- transitivity of a majority of -i/y- stems; activity semantics of all the -i/y- stems (Object Experiencer verbs aside);
- shift of conjugation class into -i/y- in the case of semantic causatives;
- shift of conjugation class into -i/y- with the activity reading of motion verbs;
- shift of conjugation class into -i/y- to express Progressive variants (i.e. activity-in-progress) of directed motion verbs;

• no inchoative Theme reading of the sole argument of intransitive -i/ystems.

Additionally, the structures presented for the three types of verbs derived the following facts:

- 1. ungrammaticality of inchoative (monoevental) variants of Theme<sub>high</sub> stems in -i/y- (i.e. without reflexive morphology);
- 2. potential change of selectional requirements with respect to objects of 'fake transitive' verbs, but no such change for causative/inchoative verbs;
- 3. possibility to augment the macro-event by adding RP (diagnosed by the presence of lexical prefixes) with causative/inchoative and unergative/fake transitive verbs, but no such option for deadjectival verbs.

One final remark is that similar arguments could be invoked here for another high Theme, i.e. -aj-. E.g. -aj- stems usually have agentive semantics, as shown in (77). They participate in causative/inchoative alternation (cf. (78)), but differently from -i/y- stems they are not involved in deadjectival derivations.

- (77) sklad-a-ć ('fold'), badać ('examine'), gad-a-ć ('chat'), fruw-a-ć ('fly')
- (78) a. Piotr miesz-a farbę. Piotr $_{NOM}$  mix-Th $_{pres.3sg}$  paint $_{ACC}$  'Piotr is mixing the paint.'
  - b. Farby się miesz-aj-ą. paints $_{NOM}$  refl mix-Th-pres.3pl 'The paints get mixed.'

I will not present all the arguments for the Theme<sub>high</sub> nature of -aj- stems here for space reasons. Yet, its high status will resurface in the discussion in several places, most prominently in connection with nondirected motion verbs and Secondary Imperfective.

#### 2.2.3 Inchoative -n- stems

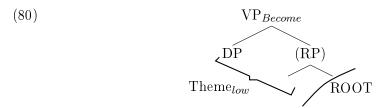
As has been shown in section 2.2.2, -i/y- stems cannot be used to spell out the structure that is usually referred to as 'unaccusative' (i.e. the one lacking the light verb layer). Thus, it is not surprising to find that whenever there is a need to express inchoation of the concept expressed by the -i/y- stem, a shift in conjugation class takes place. I illustrate the shift in (79):

```
(79) a. gas\text{-}i\text{-}\acute{c} (tr.) ('put out') - gas\text{-}nq\text{-}\acute{c}^{I28} ('go out') b. o\text{-}\acute{s}lep\text{-}i\text{-}\acute{c} (tr.) ('make blind') - \acute{s}lep\text{-}nq\text{-}\acute{c}^{I} ('get blind')
```

- c.  $glusz-y-\acute{c}$  (tr.) ('deafen')  $gluch-nq-\acute{c}^I$  ('get deaf')
- d.  $od\text{-}chudz\text{-}i\text{-}\acute{c}$  (tr.) ('make lose weight')  $chud\text{-}nq\text{-}\acute{c}^I$  ('lose weight')
- e. mroz-i- $\acute{c}$  (tr.) ('freeze') marz-nq- $\acute{c}^I$  ('get frozen')
- f.  $mocz-y-\acute{c}$  (tr.) ('wet')  $mok-nq-\acute{c}^I$  ('get wet')
- g. studz-i- $\acute{c}$  (tr.) ('cool') styg-nq- $\acute{c}^I$  ('get cool')

Note that the redirection to a different conjugation class is not random, i.e. all the inchoative variants get an inchoative -n- suffix. Note furthermore that it is not the case, again, that one stem is derived from the other. If the inchoative variant was derived from the causative variant, we would see traces of palatalization on the root-final consonants. This, however, is not the case. Even more clearly, deriving the causative stem from the inchoative one is excluded since no traces of a nasal consonant are detectable.

The semantics of the relevant -n- stems provide an initial reason to associate the -n- suffix with the low Theme lexicalizing the Transition predicate (i.e.  $V_{Become}$ ) and possibly some lower projections. Therefore, the structure that I propose for inchaative -n- stems is in (80):



Needless to say, whenever RP is present, PP will also be projected and spelled out by the prefix. Since it is the spell out of the Theme that is in question, I gloss over this issue.

To spell out the hypothesis about Theme<sub>low</sub> more clearly, I assume that the low inchoative Theme -n- is lexically specified for spelling out a subset of what the high Theme -i/y- spells out. With respect to the structure in (80) note firstly that inchoative -n- stems have an option of augmenting the event by means of an RP. This is shown in (81), where the prefixes are lexical (vague za- in (81a), spatial wy- in (81b) and 'into pieces' roz- in (81c)):

- (81) a. za-styg-nq- $\acute{c}$  (pref-cool-Th-inf; 'solidify')
  - b. wy-marz-nq-ć (pref-freeze-Th-inf; 'get frozen on the outside')
  - c. roz-mok-nq-ć (pref-wet-Th-inf; 'soak into pieces')

The potential to add a lexical prefix is not open to all the -n- stems. Yet, since it might just we well be an accidental gap, I disregard this in the

 $<sup>^{28}</sup>$ In some cases the aspectual properties of the verbal complex might be difficult to figure out for a non-native speaker. Therefore, where I consider it necessary, I provide superscripted symbols  $^{I}$  (Imperfective) and  $^{P}$  (Perfective).

structural representation. Now, inchoative -n- stems cannot augment the event by merging a  $\nu$  on top of  $VP_{Become}$ , because there is no lexical item in Polish that would be specified for spelling out  $f_{seq}$  starting from  $\nu$ . The only way to lexicalize  $\nu$  is to use the Theme $_{high}$  (either -i/y- or -aj-). The question that arises at this point is the following. Why couldn't complex macroevents be spelled out by both types of Themes, where Theme $_{high}$  would compromise its lower heads  $[R, V_{Become}]$  in favour of Theme $_{low}$  (i.e. inchoative -n-). That is never attested and I submit the reason is the mutual interaction between the lexical specification of high Theme -i/y- (in (82a)) and the low inchoative -n- Theme (in (82b)).

(82) a. 
$$-i/y$$
-: [(R (,V<sub>Become</sub>,  $\nu_n, \nu_{n+1}, ...))]b. -n-: [R, VBecome]$ 

Since the Theme<sub>low</sub> n-spells out up to  $V_{Become}$ , the Theme<sub>high</sub> would have to compromise  $V_{Become}$ . However, since the presence of  $V_{Become}$  is in fact tied to the presence of the whole light verb system, this particular spell-out option is not possible. If both  $V_{Become}$  and the light verb system is compromised, there will obviously be no place for the Theme<sub>high</sub> to be inserted. That results in a prediction that inchoative -n- stems can never be used in the causative or transitive sense. This prediction is borne out, as shown in (83):

- (83) a. \*Marek o-głuch- $(nq)^{29}$ -ł dziadka. Marek pref-deaf-Th-pst.3sg.masc grandfather $_{ACC}$  intended:'Marek made grandfather go deaf.'
  - b. \*Marek roz-marz-(ną)-ł kości. Marek pref-freeze-Th-pst.3sg.masc bones $_{ACC}$  intended:'Marek defrosted the bones into pieces.'

It is crucial to point out that the structure in (80) does not automatically prohibit inchoative -n- stems from occurring in a transitive frame. That is because RP in principle has an option of introducing an 'unselected' argument (i.e. Resultee in Ramchand's terminology). In actuality, however, the situation never arises: there are no transitive uses of inchoative -n- stems. The reason for that, I submit, is the lack of objective Case. For the time being, it suffices to say that due to the absence of  $\nu$  checking and valuing ACC Case on VP-internal arguments, transitive low Theme inchoative -n- stems will fail to be licensed. In chapter 4, however, I will revise that assumption to the effect that a level higher than  $\nu$  has to be reached for the ACC Case to be assigned.

One more thing about inchoative -n- stems needs to be established. The issue concerns their aspectual properties and the presence/absence of the

<sup>&</sup>lt;sup>29</sup>In some cases of inchoative -n- stems we get deletion of the nasal suffix before Past Tense ending -l. The point here, however, remains unaffected since the examples are ungrammatical, whether with or without the suffix.

processual part. Firstly, note that, when unprefixed, all inchoative -n- stems are atelic and imperfective. Atelicity is checked in (84a) with for X time adverbial. The standard perfectivity test, on the other hand, is grammaticality as the complement of a phasal verb (e.g. zacząć ('begin'), which holds true of imperfective verbs only (cf. e.g. Borik (2002) among many others for more discussion on aspectual tests):

- (84) a. marz-ną-ć pół godziny freeze-Th-inf half hour 'freeze for half an hour'
  - b. zacząć marz-ną-ć
     begin freeze-Th-inf
     'begin freezing'

Yet, explaining the presence of the processual part requires spelling out certain semantic details of these verbs (degree achievements - terminology due to Dowty (1979)). In a sense this is unexpected since, as I argued in section 1.1, the only locus of Process is in  $\nu$ , and these verbs are taken not to involve  $\nu$  shell at all. Moreover, the processual reading is incompatible with the transitional semantics proposed for  $VP_{Become}$ . That is why in section 2.2.5 I will undertake a detailed analysis of degree achievements (henceforth, DA), where I will argue that the presence of the process is derivative under S-summing. Thus, their semantics will be argued to involve multiplicity of transitions, which however can exceptionally be S-summed to create a continuum or process. Yet, this process is not necessary for the truth conditions of -n- stem verbs to be satisfied. Process in the nonderivative sense is not available there and that is why Secondary Imperfectivization is not possible with these stems (cf. section 2.2.8).

A further question is whether the structure for inchoative -n- stems in (79) should not involve an adjectivizer embedded under the low Theme. In fact, very many of these verbs seem to express adjectival concepts. Moreover, there is an adjectival suffix -n- in the inventory of Polish morphemes. That opens up the possibility to decompose -nq/q- into an adjectivizer and a thematic vowel, with the relevant structure sketched in (85):

(85) 
$$[VP_{Become} - q/e - [RP - n - [ROOT]]]$$

This derivation, although parallel to deadjectival high Theme verbs that we saw in the previous section, is however belied by two types of empirical considerations. Firstly, the adjectives which are involved do not contain the -n- adjectivizer, e.g.  $\mathit{slep-y}$  ('blind'),  $\mathit{gluch-y}$  ('deaf'),  $\mathit{mokr-y}$  ('wet'). Secondly, if the adjectivizer spelled out  $R^0$ , no lexical prefixes should be allowed, contrary to fact:

```
(86) a. roz-mok-nq-ć (pref-wet-Th-inf; 'soak into pieces')
b. wy-chud-nq-ć (pref-slim-Th-inf; 'get slimmer')
```

Therefore, I reject the deadjectival analysis for low Theme inchoative -n-stems. The conclusion from this section is that since all of the inchoative -n- stems have degree achievement semantics, it is possible to analyse the suffix -n- as Theme $_{low}$  whose upper boundary is defined as  $VP_{Become}$ . This analysis derives exclusively intransitive uses of -n- stems. The lexical entry for the low Theme -n- is repeated in (87):

```
(87) -n- (inchoative): [R, (V_{Become})]
```

As previously mentioned with respect to -i/y- stems, this lexical entry takes into consideration the possibility of low Theme stems to occur in adjectival passives (cf. section 4.1). For this reason  $V_{Become}$  is optional in (87), i.e. the Theme spells out only R in the relevant construction. As usual, the general optionality of R is not indicated in the lexical entry. Hence, the lack of deadjectival inchoative -n- stems is taken to imply entry-specific obligatory nature of R.

# 2.2.4 -ej- stems

-ej- stems are in many respects similar to the inchoative -n- stems discussed in the previous section. Some of the roots which belong to the -i/y- conjugation class when used transitively, necessarily redirect the roots to an -ej-conjugation class to express the inchoative variant of the same concept (cf. (88))<sup>30</sup>.

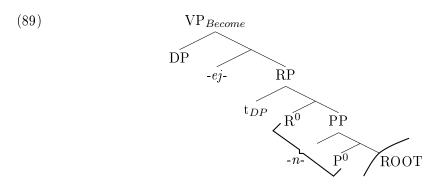
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(88) a. za-gesc-i-c (tr.) ('make thick') - gest-n-ie-c ('get thick')<sup>31</sup>
b. u-pieksz-y-c (tr.) ('beautify') - piek-n-ie-c ('get beatiful')
c. szpec-i-c (tr.) ('make ugly') - szpet-n-ie-c ('get ugly')
d. glodz-i-c (tr.) ('starve') - glod-n-ie-c ('get hungry')
e. o-glup-i-c (tr.) ('make stupid') - glup-ie-c ('get stupid')
f. zielen-i-c (tr.) ('make green') - zielen-ie-c ('get green')
g. od-mlodz-i-c (tr.) ('make younger') - mlod-n-ie-c ('get younger')
h. za-grzyb-i-c (tr.) ('cause sth to have fungi') - grzyb-ie-c ('get senile')
```

Firstly, note that inchoative -ej- variants in many cases have overt adjectivizing morpheme -n-. In this respect they differ from inchoative -n-stems. Interestingly, sometimes adjectivizing morphology occurs even in spite of the fact that the adjective itself does not display the -n- morpheme.

 $<sup>^{30}</sup>$ I use the term 'redirect' very loosely, i.e. no derivational relation is implied.

 $<sup>^{31}</sup>$ The *i* that occurs in the spelling of inchoative variants is just an orthographic way of marking palatalization of the preceding consonant in the context of the marker  $\cdot ej$ . The glide of the relevant Theme deletes before a consonantal infinitival ending.

This is the case for  $mlod-n-ie-\acute{c}$  ('get young')(cf. adjective mlod-y (young-sg.masc)). The usual denominal adjectivizing morpheme in Polish is -i- or -j-(cf. Rubach (1984)), which is detectable in the feminine and neuter form of the adjective, e.g. grzyb-i-a (mushroom-adj-sg.f; 'pertaining to mushrooms'). Therefore, the exact parse of denominal -ej- stem  $grzybie\acute{c}$  is hard to arrive at. This is because if there was an adjectivizer -i-, it would only be visible as palatalization (marked orthographically as -i-) before the Theme. On the other hand, even if there was no adjectivizer, palatalization would still be triggered by the Theme -ej-, as it is for all the remaining verbs in (88). Yet, since assuming the presence of adjectivizing -i- for (88h) allows for a uniform analysis of all -ej- stems, I will postulate the structure in (89) for all the -ej- stems.



The structure in (89) is in a sense parallel to deadjectival high Theme stems proposed in section 2.2.2. Yet, this time the Theme spells out a smaller chunk of structure up to  $VP_{Become}$  and no  $\nu$  shell is present. As an aside, it is noteworthy that low Theme deadjectival verbs, as opposed to Theme<sub>high</sub> deadjectival stems, do not necessarily take a prefix (cf. the contrast in (90ab) vs (90cd)).

- (90) a. \*(u)-moż-liw-i-ć (pref-possible-adj-Th-inf; 'make possible')
  - b. \*(po)-qorsz-y-ć (pref-worse-Th-inf; 'worsen')
  - c. (wy)-pięk-n-ie- $\dot{c}$  ((pref)-beaut-adj-Th-inf; 'get beautiful')
  - d. (ze)-szpet-n-ie- $\acute{c}$  ((pref)-ugly-adj-Th-inf; 'get ugly')

This contrast seems to indicate that the presence of the prefix does not have anything to do with the presence of adjectivizing morphology below Theme. Rather, it seems that the presence of Causing subevent in  $\nu$  is crucial for the prefix, although in ways that remain a mystery to me.

Let us now turn to the predictions associated with the structure in (89). Firstly, as with deadjectival high Theme stems, the adjectivizer fills the structure up until  $\mathbb{R}^0$ . As a consequence of this fact, the -ej- stems should be incompatible with lexical prefixes, which originate in the PP complement to RP. This prediction is borne out, as shown in (91):

(91) \*przy-/pod-/wy-/roz-/prze-głup-i-e-ć przy-/pod-/wy-/roz-/prze-stupid-adj-Th-inf

The only counterexamples I can think of are:

(92) a. wy-pięk-n-ie-ć (wy-beaut-adj-Th-inf; 'get beautiful') b. od-młod-n-ie-ć (od-voung-adj-Th-inf; 'get voung back')

The prefixes in (92), however, might turn out not to be lexical in the end. This is because wy- does not contribute any semantics. What's more, in the case of  $pięknie\acute{c}$  no other prefix can attach except for wy-. Thus, wy-in (92a) might be purely perfectivizing in nature (i.e. changing the outer-aspectual properties of the verb, but not contributing any meaning difference, the reader is referred to Jablonska (2004) for the argument why purely perfectivizing prefixes are NOT located in R.). Od-, on the other hand, is comparable to English 'back' (cf. the translation of (92b)) and this particle also in English seems to be located in the region higher than RP, e.g. it is one of the few particles that cooccurs with other particles, as in throw the ball back in (cf. Syenonius (2004)).

A more general prediction stemming from the hypothesis relating to adjectival morphology as spell out of [R, P] is that adjectives in general would be incompatible with lexical prefixes. This prediction is partly borne out, as shown in (93):

- (93) a.  $roz-złośc-i-\acute{c}$  (pref-angr-Th-inf; 'make angry') vs (\*roz)-złoś-liw-y (pref-angr-adj-3sg.m; 'mean/malicious')
  - b. wy-rzuc-i- $\acute{c}$  (pref-throw-Th-inf; 'throw out') vs (\*wy)-rzut-k-i (pref-throw-adj-3sg.m; 'enterprising')
  - c. wy-br-a- $\acute{c}$  (pref-take-Th-inf; 'elect') vs (\*wy)-bier-n-y (pref-take-adj-3sg.m; 'passive')
  - d. za-kwiec-i- $\acute{c}$  (pref-flower-Th-inf) vs (\*za)-kwiat-ow-y (pref-flower-adj-3sg.m; 'flowery')

Yet, in some adjectives with the relevant adjectival morphology, i.e. -liw-, -n- and -ow-, lexical prefixes seem to be available:

- (94) a. na- $pa\acute{s}\acute{c}$  (pref-fall; 'attack') na-past-liw-y (pref-fall-adj-3sg.m; 'attacking')
  - b.  $ob\text{-}woz\text{-}i\text{-}\acute{c}$  (pref-transport-Th-inf; 'transport around')  $ob\text{-}wo\acute{z}\text{-}$ n-y (pref-transport-adj-3sg.m; 'transportable')
  - c. w-suw-a- $\acute{c}$  (pref-push-Th-inf; 'push inside') w-suw-n-y (pref-push-adj-3sg.m; 'pushable inside')

Note, however, that all of the above adjectives have semantics more complicated than the unprefixed adjectives in (93). Therefore, I take the adjectivizers in (94) to involve a different spell out (higher heads than RP), the

identity of which I leave for future research<sup>32</sup>.

Apart from the interaction with lexical prefixes, there are further predictions stemming from the structure in (56). Analogously to inchoative -n-stems, -ej- stems cannot be used transitively. This is again due to the fact that there is no  $\nu$  shell in these verbs. Under the quite widely accepted assumption that  $\nu$  is instrumental in assigning ACC (see chapter 4, however, for reformulations), the ungrammaticality of transitive structures follows. It needs to be pointed out that the potential transitivity might in principle be due to two sources: (i) DP<sub>1</sub>-Undergoer and DP<sub>2</sub>-Initiator, and (ii) DP<sub>1</sub>-Resultee and DP<sub>2</sub>-Undergoer. As with inchoative -n- stems, the lack of objective Case explanation accounts for the ungrammaticality of both. This is illustrated in (95):

- (95) a. \*Marek z-głup-i-a-ł Martę. Marek perf-stupid-adj-Th $_{ej}$ -pst.3sg.m Marta $_{ACC}$  intended:'Marek made Marta stupid.'
  - b. \*Marek od-młod-ni-a-ł Martę.  $^{33}$  Marek pref-young-adj-Th $_{ej}$ -pst.3sg.m Marta $_{ACC}$  intended: 'Marek made Marta young.'

A further interesting quirk about -ej- stems is their inability to form Secondary Imperfective, as well as the ability to form so-called -l-participle (resultative adjectival participle, cf. Cetnarowska (2000), although no connection to conjugation classes is made there). I will investigate the former issue in section 2.2.5 and 2.2.8, whereas the -l- participle formation will surface in the discussion in chapter 4.

To sum up the results of the last two sections, I have analysed both inchoative -n- and -ej- suffixes as a Theme $_{low}$  spelling out the functional sequence up until  $\mathrm{VP}_{Become}$ . This analysis accounted for their argument structure properties, namely the fact that they are restricted to intransitive configurations, as well as their uniform semantics of Degree Achievements. I have also shown that the two differ in the sense that -ej- stems are deadjectival verbs, whereas inchoative -n- stems are not derived. The lack of lexical prefixation of the former follows from this fact.

 $<sup>^{32}</sup>$ Furthermore, stative adjectival passives are predicted to allow the presence of lexical prefixes, since their R is spelled out by the Theme, and hence  $P^0$  is free to host a lexical prefix. The discussion of this point presupposes the analysis in chapter 4.

 $<sup>^{33}</sup>$  The alternation of the Theme:  $ej \rightarrow a$  is caused by the context of non-palatalized l. Cf. glup-i-e-li (stupid-adj-Th-3pl.vir; 'they  $_{vir}$  were getting stupid') vs glup-i-a-ly (stupid-adj-Th-3pl.nonvir; 'they  $_{nonvir}$  were getting stupid'). Similarly for -e- stems: krzycz-e-li (shout-Th-3pl.vir; 'they  $_{vir}$  were shouting') vs krzycz-a-ly (shout-Th-3pl.nonvir; 'they  $_{nonvir}$  were shouting'). Furthermore, the underlying presence of the Theme -ej- in (95) is confirmed by the palatalization effect on the preceding consonant: od-mlod-ni-a-l.

# 2.2.5 More on degree achievements

Semantically speaking, both of the previously described groups of verbs, i.e. inchoative -n- stems and -ej- stems seem to be very similar. They are verbs of gradual change, i.e. degree achievements. As noted in the literature (cf. e.g. Dowty (1979), Bertinetto and Squartini (1995), Ramchand (1997), Hay et al. (1999)), these verbs are notoriously difficult in English to characterize in terms of telic/atelic opposition. That is because they behave ambiguously with respect to standard telicity tests. Firstly, they are compatible with both in an hour and for an hour adverbials:

- (96) a. The soup cooled for an hour.
  - b. The soup cooled in an hour.

Secondly, in certain cases the progressive forms of DAs entail their perfective variants (a property taken as diagnosing atelicity), whereas in other cases they don't:

- (97) a. Kim is lengthening the rope.  $\rightarrow$  Kim has lengthened the rope.
  - b. Kim is straightening the rope.  $\rightarrow$  Kim has straightened the rope.

Thirdly, the adverbial *almost* test, which yields ambiguity in interpretation for telic verbs (i.e. *almost* can either scope over the whole macro-event or else only over the resulting state) and no such ambiguity for atelic ones, also yields mixed results for DAs:

- (98) a. The tailor almost lengthened my pants. (ambiguous)
  - b. The teacher almost lengthened the exam. (unambiguous)

This schizophrenic behaviour of DAs lead Bertinetto and Squartini (1995) to conclude that DAs are systematically ambiguous between two interpretations (A stands for the underlying adjective in (99)):

- (99) a. to become A-er
  - b. to become A

The same intuition is formalized in Hay et al. (1999), where DAs are taken to introduce a measure of the degree to which an argument of the verb changes with respect to the gradable property of the adjectival base. I note here that, in my view, the prominence of gradability of roots does not necessarily imply adjectival projections in the derivational history. Thus, I conceive of gradability as a property of roots. That assumption allows one to incorporate inchoative -n- stems into the analysis in spite of their not being deadjectival strictly speaking. More generally speaking, under the present assumptions all roots combining with a Theme that spells out  $V_{Become}$  are gradable in nature.

Thus, Hay et al. (1999) and Kennedy and Levin (2002) propose to formalize the scalarity underlying the semantics of these verbs in terms of a scale S, which is a set of points ordered along some dimension (e.g. length, volume, duration, etc.). The points are taken to correspond to the set of real numbers between 0 and 1. Scales can be open or closed, depending on the lexical semantics of the underlying adjective. I illustrate open scale verbs in Polish in (100) and closed scale in (101):

- (100) a. drożeć ('get (more) expensive')
  - b. głupieć ('get (more) stupid')
  - c. marnieć ('get (more) miserable')
- (101) a. zielenieć ('get (more) green')
  - b. zdrowieć ('get (more) healthy')
  - c. kamienieć ('get (more) stony')

The distinction correlates with the possibility to use scalar adverbs, e.g. an adverb *zupełnie* ('totally'), which picks up the end of the scale S (cf. *zupełnie zdrowy* ('totally healthy') vs \*zupełnie drogi ('totally expensive')). The measure of change corresponds to a (differential) degree argument.

(102) For any verb of gradual change  $V_{\Delta}$  with associated gradable property  $G_V$ : [ $V_P V_{\Delta} \times d$ -much] is true of an event e iff x increases in  $G_V$ -ness by d-much.

(Kennedy and Levin, 2002)

Thus, the lexical semantics of *glupieć* adapted from Kennedy and Levin (2002) is as in (103), where BEG and END are functions from events to times that return an event's beginning and end points respectively.

```
(103) a. V_{\Delta} = \lambda x \lambda d \lambda e.INCREASE(STUPID(x))(d)(e)
b. [INCREASE(STUPID(x))(d)(e)] = 1
iff STUPID(x)(END(e)) = STUPID(x)(BEG(e)) + d
```

Further, Kennedy and Levin (2002) argue that telicity vs atelicity of DAs really corresponds to the presence of quantized vs non-quantized d argument. Thus, in English there can be four ways of determining the value of d:

- 1. d quantized by explicitly provided linguistic material;
- 2. d quantized by inference from the lexical semantics of the verb and its arguments;
- 3. d quantized by inference from world-knowledge;
- 4. d bound by an existential quantifier.

The first strategy is illustrated in (104), where the predicate cannot be interpreted atelically once the degree is overtly specified. Therefore, for X time adverbial diagnosing atelicity is ungrammatical in (104):

(104) The icicle lengthened by 3 centimeters (\*for two days).

The second strategy, i.e. inference from lexical semantics is related to open vs closed scale adjectives (cf. Hay (1998) and Kennedy and McNally (1999)). The verb based on an adjective with a maximal value cannot usually be interpreted atelically:

(105) The tub is emptying.  $\rightarrow$  The tub has emptied.

Yet, the world-knowledge (the third strategy) can sometimes override the effects of lexical semantics, as in (106), which is most saliently interpreted as an atelic verb:

(106) The Amazon emptied into the Ocean.

Real world-knowledge may also help assign aspectual value to the verb on its own, as in (98a), repeated here as (107):

(107) The tailor almost lengthened my pants. (ambiguous)

What we know about tailors, as well as about trousers having a certain limit to how much they can be lengthened helps establishing the telic interpretation as one of the possible readings.

Finally, if none of these factors is operative, d is bound by an existential quantifier at the level of the verbal predicate. The result is an atelic predicate. Although it seems that the four different strategies in English can be quite closely interwoven, I will argue that in Polish quantization of d vs lack thereof is in fact signalled overtly by means of prefixes. In that sense, the difference with respect to English equivalents is that no ambiguity ever arises.

Note further that the truth conditions for the gradual change event, as defined in (103) result in the following predictions:

- (108) a. When d is quantized, lengthen the icicle is true only of events whose endpoints correspond to that point in time at which the length of the icicle increased by d.
  - b. When d is not quantized, lengthen the icicle is true of any event of icicle-lengthening.

Polish DAs, when unprefixed, behave as atelic in all possible respects. To wit, they are compatible with for X time adverbial, but never with in X time, as shown in (109).

(109) mar-n-ie- $\acute{c}$  gas-ną- $\acute{c}$  przez pół godziny/ \*w pół miser-adj-Th<sub>ej</sub>-inf/ go.out-Th<sub>n</sub>-inf for half hour/ \*in half godziny hour 'to get miserable/ to go out for half an hour'

Furthermore, unprefixed low Theme stems are unambiguous with respect to the 'almost' test (cf. (110)), in contrast to their prefixed variants (cf. (111)).

- (110) a. Marek prawie mar-n-ia-ł w oczach.

  Marek almost miser-adj-Th $_{ej}$ -pst.3sg.m in eyes

  'Marek was almost getting miserable (i.e. didn't even start)'
  - b. Marek prawie ślep-ną-ł. Marek almost blind- $\mathrm{Th}_n$ -pst.3sg.m 'Marek was almost getting blind (i.e. didn't even start).'
- (111) a. Marek prawie z-mar-n-ia-ł. Marek almost pref-miser-adj-Th<sub>ej</sub>-pst.3sg.m 'Marek almost got miserable.' (ambiguous)
  - b. Marek prawie o-ślep- $\emptyset$ -ł Marek almost pref-blind-Th<sub>n</sub>-pst.3sg.m 'Marek almost got blind.' (ambiguous)

The two interpretations in (111) are: (i) Marek didn't even start to get miserable/blind, although he looked as if he was going to, and (ii) Marek started getting miserable/blind but he didn't achieve the contextually defined final state of being blind/miserable.

Finally, the Progressive entailment test, where only atelic verbs license a semantic entailment from Progressive to Past Simple, is quite tricky to apply to Polish. This is due to the lack of correspondences between the two languages. Firstly, the Progressive can be expressed by two forms in Polish: a bare stem, as well as a derived so-called Secondary Imperfective. Secondly, the interpretation in the Past Tense in Polish is dependent on the aspect of the verb. Therefore, an unprefixed verb in the Past will always be interpreted as Progressive, whereas the prefixed verb is the only equivalent of the English Past Simple. For this reason, checking whether an unprefixed verb in the Past Tense licenses an entailment from the Progressive does not really make sense, since the entailment is trivially true: the Progressive entails the Progressive, as in (112):

(112) a. Marek marz-ną-ł kiedy przyszła mama. $\rightarrow$  Marek freeze-Th $_n$ -pst.3sg.m when come $_{pst.3sg.f}$  mother 'Marek was freezing when mother came'

b. Marek marz-ną-ł. Marek freeze- $Th_n$ -pst.3sg.m 'Marek was freezing.'

(112a) trivially entails imperfective (112b). On the other hand, when a low Theme verb is prefixed, it is important to check the Progressive variant of exactly the same verb, i.e. a Secondary Imperfective of a prefixed verb, as in (113):

- (113) a. Marek wy-marz-a-ł  $\rightarrow$  Marek pref-freeze-Th.SI-pst.3sg.m 'Marek was freezing on the outside.'
  - Marek wy-marz-Ø-ł.
     Marek pref-freeze-Th<sub>n</sub>-pst.3sg.m
     'Marek froze in the outside.'

Since a perfective verb in (113b) does not license an entailment from its Progressive form, we conclude that it behaves as a telic predicate. Putting aside these complications, the conclusion for Polish seems to be that the DAs of the low Theme type behave unambiguously: whenever unprefixed, they are atelic, whereas prefixation results in telicity<sup>34</sup>. I conclude that the unprefixed variants must exemplify the strategy in 4, where the value of d is unquantized and only existentially bound. The event is true even if the minimal change took place. Thus, the only restriction on the truth conditions of these predicates is in (114):

(114) 
$$STUPID(x)(END(e)) - STUPID(x)(BEG(e)) > 0$$

The point that I need to address is the following: if DAs can in principle denote a minimal change, i.e. are in a certain sense instantaneous, just as semelfactives, how can they ever be compatible with *for X time* adverbials (cf. (109))? I argue that this is because the process reading is derived for these predicates under S-summing (cf. Rothstein (2004)).

I follow Rothstein (ibid.) in assuming that S-summing is a freely available operation with the standard summing properties that forms a singular entity out of two singular entities if they stand in an appropriate R relation. The definition of S-summing is in (115):

(115) **S-sum**: 
$$\forall x,y [S-sum(x,y) \rightarrow R(x,y) \land S(x \sqcup y)]$$

For events as entities, the relation R(e,e') holds iff:

<sup>&</sup>lt;sup>34</sup>Similar conclusions hold of transitive variants of the same roots, with the additional restrictions to the effect that strictly deadjectival transitive high Theme stems lack unprefixed (imperfective) variants (cf. section 2.2.2.

- (116) a. e and e' are temporally overlapping
  - b. e and e' have the same participants

Thus, S-summing will freely apply to activities and states. For predicates of change, however, S-summing normally does not find satisfactory conditions, i.e. the potential subevents cannot overlap temporally.

If X is a predicate of change, then two events in X with the same participants cannot immediately follow each other since an event of change from  $\neg \varphi$  to  $\varphi$  cannot be immediately followed by a second event of the same kind (with the same participant) without first there being a change back from  $\varphi$  to  $\neg \varphi$ .

(Kamp, 1979)

The prediction is, then, that if there are predicates of change which are not changes from  $\neg \varphi$  to  $\varphi$ , these predicates will allow for S-summing to apply to them. DAs are exactly the case in point. Let me be more explicit about it. Suppose there are two events e and e', where BEG(e) corresponds to point 0 on the Scale S and END(e) corresponds to 0.03, and BEG(e') corresponds to 0.03 and END(e') to 0.05. Then these two subevents minimally overlap in the sense that the final point at which e holds is the initial point at which e' holds. No other subevent need intervene. Thus, the two events are S-summable with the degree of change 0.05. A continuum is created under S-summing and that continuum is compatible with for X time adverbial.  $^{35}$   $^{36}$ 

The above difference in the behavior of DAs in English and Polish is really a reflection of a more fundamental difference between the two languages concerning the way of establishing aspectual properties. In English the relevant level of aspect does not seem to be marked morphologically and therefore verbs will be ambiguous between quantized and non-quantized variants. Hence bare stems in English will be extremely flexible and only the syntactic or even pragmatic context will conspire to yield (a)telic readings. That is why e.g. delimitation of the object in the case of Incremental Theme verbs will matter and in fact inspired the whole strand of research on compositionality of aspect (cf. Verkuyl (1972), Verkuyl (1999), Krifka (1992), Filip (2003)). For instance, under Verkuyl's assumptions the specified quantity of object in (117a) leads to telicity, as opposed to the lack thereof in (117b):

 $<sup>^{35}</sup>$ Note that I remained agnostic about the semantic requirements of for X time, i.e. it probably does not have any requirement with respect to the homogeneous nature of the predicate it applies to. Thus, change-of-state inherent in the semantics of -ej- and inchoative -n- stems does not have fatal consequences for the use of the adverbial in question.

<sup>&</sup>lt;sup>36</sup>S-summing is not necessarily incompatible with the change taking place at a varying pace. This is because the minimal atomic subevent which can undergo S-summing is defined on the basis of the truth conditions in (114). Therefore, only the degree of change at the beginning and end point of each subevent is crucial.

- (117) a. John drank three glasses of wine in/\*for an hour.
  - b. John drank wine for/\*in an hour.

As argued in Ramchand (2003), this is only specific to Incremental Theme verbs, but is not true of other verbs (e.g. *push the cart*, although it has a specified object, receives atelic reading in the absence of goal). With other verbs, it might in fact be due to conversational implicature that the sentence is interpreted as telic. Consider (118):

#### (118) John painted the wall.

As noted by Hay et al. (1999), it is just uninformative to utter (118) when the whole wall hasn't been affected. From a pragmatic point of view, out of context, one is probably obeying Grice's Maxim of Relevance when a connection is made to the effects of the event (so-called 'Resultant State', cf. Parsons (1990)). It is only when a specific context is set up (e.g. when one wants to know what John was doing yesterday at 5 o'clock since he didn't turn up at the family dinner.) that the reference to an unfinished event might be made. In this or similar context, the telic interpretation of (118) can be overriden (e.g. by means of adding for X time adverbial)<sup>37</sup>.

Still, there are limits to how much certain stems can appear flexible even in English. Thus, there is a group of verbs that seem to come telic already from the lexicon and there is nothing that can override it. This group, however, is not distinctive in any morphological sense. I provide an example in  $(119)^{38}$ :

(119) \*John killed the chicken for two minutes, but then he changed his mind and went to eat out.

For this group of verbs the root/stem might be specified in the lexicon as spelling out also R head, and thus inducing telicity. The lexical entry for such a verb would look as in  $(120)^{39}$ :

(120) **break**:  $[R, V_{Become}, \nu]$ 

That is in striking opposition to languages like Polish, where bare stems never display the effect exemplified in (119). They are always interpreted

<sup>&</sup>lt;sup>37</sup>Cf. also Borer (2005:ch.11, p.21) referring to Mittwoch's claim to the effect that all accomplishment verbs in English have a possible (atelic) activity interpretation as well.

 $<sup>^{38}</sup>$ Even in this case, however, it seems that the 'non-flexibility' needs to be related to real world-knowledge. This is because with kill the Resultant State is neither reversible, nor repeatable (i.e. when the same participant is involved). Even with verbs like break, it is possible to coerce an atelic reading, though in the sense of iteration of events (i.e. probably a higher aspectual level).

<sup>&</sup>lt;sup>39</sup>The light verb layer is an obligatory element, as I will argue in section 3.1. The entry does not include, however, the possible iterative construal, where an additional optional layer of higher Aspect would be included.

atelically<sup>40</sup>. Any delimitation of the event (whether in the sense of telicity or any higher level aspect) needs to be done by formal means, i.e. by attaching a prefix. In this sense bare stems in Slavic come from the lexicon not equipped with any temporal specification at all<sup>41</sup>.

Specifically, I will assume together with Demirdache and Uribe-Etxebarria (2000) that Aspect is really a dyadic predicate relating two temporal variables. The fact that the temporal boundaries really do not exist for the bare stems in Polish makes them comparable to English stative verbs. That might be the reason why Polish bare stems are compatible with Present Tense interpretation, whereas English non-stative verbs need the Progressive operator to mediate between Event Time and Speech Time. I will come back to this distinction in greater detail in sections 2.2.8.

Thus, the ambiguity of English DAs stems from their potential to lexicalize R. The English root/stem cool from (96) is specified in the lexicon<sup>42</sup>:

(121) **cool**: 
$$[(R), V_{Become}, (\nu)]$$

If, however, R is present (i.e. in cases where the verb gets interpreted as telic, as in *The soup cooled in five minutes*, one expects to also see a PP complement of R<sup>0</sup>. In turn, since P is spelled out by a particle in English (cf. e.g. Ramchand and Svenonius (2002)), we expect to see a particle in the relevant structure, contrary to fact. Since giving up the obligatory nature of a PP complement to RP would result in quite an unrestrictive theory, I conclude that English root/stem can also spell out P<sup>0</sup>, as opposed to Polish, where only prefixes are elligible to spell out R<sup>0</sup>. This conclusion is in a sense in the spirit of the extreme flexibility of English roots.

The essence of the proposal is than that telicity (in both English and Polish) corresponds to the temporal boundedness of the event denoted by  $V_{Become}$ . This boundedness comes from assigning an absolute value to the differential degree argument d. This absolute value is assigned by means of RP in both languages. The difference is that in Polish R lexicalized by the Theme requires a PP complementation, which in turn is always lexicalized by a lexical prefix. In English, on the other hand, the root can spell out the whole lower portion of  $f_{seq}$  on top of ROOT, including  $P^0$ .

<sup>&</sup>lt;sup>40</sup>I abstract away from the cases of bare stems in the Perfect use - see Borik (2002). In Polish this phenomenon is much more restricted than in Russian. Moreover, the issue is considerably obliterated by the semantics of the Perfect of Experience.

 $<sup>^{41}</sup>$ It might be objected that if bare stems in Polish are obligatorily atelic, they are in a sense specified temporally. I do not draw that conclusion however, since following Borer (2005) I conceive of atelicity as a default option. I.e. in the absence of the functional projection which would correlate with telicity/perfectivity, atelicity arises.

 $<sup>^{42}</sup>$ For this particular root/stem there does not seem to be any evidence for the covert anticausative analysis in the intransitive variant. Therefore,  $\nu$  is kept optional, pending this type of evidence.

Finally, it is my contention, that the analysis presented above for DAs is also applicable *mutatis mutandis* to Polish directed motion verbs. If these verbs also contain a degree argument that measures a gradable property of movement along some path, then again we derive the fact that sentences with directed motion verbs will be true as long as *any* increase in the property associated with the ROOT has taken place. Further consequences of this analysis will bear on SI formation (cf. section 2.2.8).

Summarizing the results of the present section, I have tried to show that scalarity underlying the semantics of both degree achievements and directed motion verbs combined with certain assumptions about the way aspect works in Polish, results in a situation where, given a dense Scale S, the existence of the process part is not mutually exclusive with the change-of-state inherent in the semantics of these verbs. In other words, S-summing in the sense of Rothstein (2004) is exceptionally possible with DAs since they are not changes from  $-\alpha$  to  $\alpha$ , but rather gradable changes on the scale. Therefore, the minimal subevents can be temporally overlapping, enabling S-summing. More generally speaking, since the claim concerns all verbs whose root/stem lexicalizes  $V_{Become}$ , it seems that no verbs are in fact changes of the former type (i.e. from  $-\alpha$  to  $\alpha$ ) since there is no functional projections with this kind of semantics. Rather, the arising impression of such semantics comes from an absolute value being assigned to a differential degree argument by means of R<sup>0</sup>. The gradability under the present assumptions holds of both transitive, as well as intransitive verbs. The issue arose, however, in relation to Polish Theme<sub>low</sub> stems (i.e. inchoative -n- and deadjectival -ej- stems) as they are claimed not to possess a Process layer located in  $\nu$ . From this perspective it was unexpected that the transitional semantics proposed for  $V_{Become}$  can still yield atelic predicates. Concluding, all stems which spell out V<sub>Become</sub>, are in a sense Degree Achievements. Alternatively, there isn't any separate class of verbs referred to as Degree Achievements.

## 2.2.6 Semelfactives

There exists a distinction within Polish (and Slavic in general) verbal system between verbs which encode instantaneous events (i.e. semelfactives) and verbs which encode iteration of instantaneous events conceptualized as activity/process. The former contain the suffix -n- which defines a conjugation class. They are either transitive or intransitive. Examples of the two classes are provided below:

Slavic semelfactives crucially contrast with English semelfactives, e.g. beep, blink, cough, tap. As noted in Marantz (2003), these verbs behave similarly to activities, e.g. they can take resultatives (i.e. Ramchand's RP) introducing unselected objects, as in (122):

non-semelf.	conj.class	gloss	semelf.	gloss
kopać	-a- stem	'be kicking'	kopnąć	'kick once'
machać	-aj- stem	'be waving'	machnąć	'wave once'
walić	-i- stem	'be banging'	walnąć	'bang once'
pukać	-aj- stem	'be knocking'	puknąć	'knock once'
szczekać	-aj- stem	'be barking'	szczeknąć	'bark once

Table 2.4: Semelfactives

- (122) a. beeped John crazy
  - b. beeped his way out of the room
  - c. beeped the door open

(Marantz, 2003:12)

Thus, in the case of English verbs like *beep* we can talk about activity or semelfactive *readings* of the same verb form. In Polish, however, semelfactives display an array of different syntactic properties to which I turn directly.

Firstly, semelfactives do not seem to be able to take an RP. This is seen in their inability to take either prepositional resultative predicates (cf. e.g. Folli and Ramchand (2001) for the claim that complement of RP is the locus of resultatives), or lexical prefixes. This is illustrated in (123c) and (123a) respectively  $^{43}$ .

- (123) a. \*przy-/wy-/roz-/pod-/ob-kop-**ną**-ć przy-/wy-/roz-/pod-/ob-kick-Th<sub>sem</sub>-inf
  - b. wy-kop-**a**-ć piłkę out-kick-Th-inf ball<sub>ACC</sub> 'kick out a ball'
  - c. \*za-mach-ną-ć kogoś na śmierć pref-wave-Th<sub>sem</sub>-inf somebody to death intended:'to wave somebody to death'
  - d. za-mach-a-ć kogoś na śmierć pref-wave-Th-inf somebody to death 'to wave somebody to death'

With respect to the examples in (123) note that whenever there is a need to add a lexical prefix or a resultative predicate to the root expressing the semelfactive concept, conjugation class shift occurs. The semelfactive suffix disappears even though there is no phonological reason for this (i.e. (123a) and (123c) are perfectly pronounceable) and the root is redirected to a different conjugation class: -a- stem in the case of (123b) and -aj- stem in the

 $<sup>^{43}</sup>$ Still, the restriction is not absolute. E.g. there occur some prefix-induced reflexive semelfactives, as  $za\text{-}mach\text{-}nq\text{-}\acute{c}$  sie (pref-wave-Th<sub>sem</sub>-inf refl; 'to swing a hand as if one prepares for a throw').

case of (123d). This fact can be interpreted in two ways: (i) the semelfactive Theme for some reason cannot take an RP augment, or (ii) the semelfactive Theme obligatorily includes [RP,PP] in its spell out. As for the first solution, there does not seem to be any way to explain it without resorting to selectional requirements on semelfactive -n- (i.e. saying that the semelfactive anti-selects RP). Since, however, the anti-selection is not general, and imposing contextual restrictions on morphemes beyond those associated with the heads they lexicalize seem to increase considerably the descriptive power of the whole system, I decide against this solution. If the latter hypothesis is entertained, certain predictions arise. Specifically, if Theme<sub>sem</sub> is taken to obligatorily lexicalize R<sup>0</sup>, it is expected that all semelfactives will in fact be interpreted telically, and would pass all the tests that are passed by verbs with lexical prefixes. This is in fact borne out. Present unprefixed forms of semelfactives can only receive Future interpretation (cf. (124)) and they are impossible as complements of so-called 'phasal verbs' (cf. (125)) - the two uncontroversial perfectivity diagnostics in Slavic<sup>44</sup>:

- (124) Kop-ni-e-my Jana. kick-sem-**pres**-3.pl Jan<sub>ACC</sub> 'We will kick Jan.'
- (125) \*zacząć/skończyć kop-ną-ć begin/finish kick-sem-inf intended: 'to begin/finish kicking once'

Yet, there is a more serious reason to think that the Theme<sub>sem</sub> obligatorily lexicalizing  $R^0$  is problematic. The reason is that a lot of semelfactive verbs are in fact intransitive. If R were obligatorily present with semelfactive stems, we would expect the presence of the argument interpreted as RESULTEE. Yet, a great many semelfactive stems in fact lack objects altogether (e.g. szczek-nq-c (bark-Th<sub>sem</sub>-inf; 'to bark once')). One might advance a hypothesis that it is the external argument in intransitive semelfactive verbs that starts out as a RESULTEE. Yet, as I will argue in section 3.1, identifying an internal and an external role on one argument requires a special licensing mechanism, i.e. the presence of the reflexive clitic. Thus, it seems that neither of the two solutions is unproblematic. Therefore, I leave the quirk of semelfactives associated with the paradigm in (123a) unresolved.

Coming back, however, to the gist of the proposal, I take the semelfactive -n-to be lavishly inserted to spell out a subsequence of  $f_{seq}$  involving a different, non-durative flavor of  $\nu$ . Hence no process is involved in the denotation of

<sup>&</sup>lt;sup>44</sup>Here I use the perfectivity tests, as opposed to the telicity test. This is because the only telicity test, i.e. *in X time* adverbial is excluded due to the instantaneous nature of semelfactives. Lexically prefixed verbs, however, are also expected to pass perfectivity diagnostics.

 $\nu_{sem}$ . The lexical entry for Theme<sub>sem</sub> is in (126).

(126) Theme<sub>sem</sub>: [ (R (,V<sub>Become</sub>,  $\nu_{sem})))]$ 

An alternative to this flavor-of- $\nu$  solution would be to postulate that the semelfactive -n- occupies a different place in  $f_{seq}$  than the Theme<sub>high</sub> of the processual type - i.e. a still more fine-grained analysis of the lower domain. In that sense the semelfactive Theme would spell out either a subset or a superset of the spell out of high processual Themes<sup>45</sup>. This solution would in fact be more in line with the general research agenda pursued in the present work. Yet, since I cannot think of any ways to verify which of the  $\nu$ s dominates which one, I will keep referring to a 'semelfactive flavor of  $\nu$ '. A further thing to note about (126) is that in spite of being homophonous with the previously discussed low inchoative Theme -n-, the semelfactive Theme is of the high type. The decision is motivated by several facts. Firstly, semelfactives do not have the semantics associated with Themelow stems. Instead, their semantics is always agentive, and identical to the non-semelfactive activity counterparts (i.e. modulo non-durativity). Moreover, we will see in chapter 3 that all semelfactive verbs pattern with non-unaccusative verbs on the basis of language-internal diagnostics.

Finally, semelfactives can take objects - a fact which under present assumptions excludes a low Theme analysis. Therefore, as with all high Themes (cf. section 2.2.2), the presence of  $V_{Become}$  necessarily induces the presence of the light verb as well. The optional projection R is included in (126) in order to allow for the use of Theme<sub>sem</sub> in stative adjectival participles (cf. chapter 4 for the discussion of participial structures).

The question that arises with respect to the objects of semelfactives is where are they merged? One possibility is that they merge as UNDERGOERS, i.e. in Spec,  $VP_{Become}$ . In section 3.1 I will argue that this correlates with their ability to participate in causative/inchoative alternation. This prediction is confirmed for a part of semelfactive stems, e.g. in (127).

- (127) a. Marek wal-ną-ł Jarka. Marek bang-Th<sub>sem</sub>-pst.3sg.m Jarek 'Marek hit Jarek once.'
  - b. Jarek wal-ną-ł się. Jarek bang-Th $_{sem}$ -pst.3sg.m refl 'Jarek got hit.'

On the other hand, however, other semelfactive verbs are either intransitive

 $<sup>^{45}</sup>$ In fact, if we assume that Rothstein's (2004) S-summing is structurally represented as a functional projection, it might indicate that the Theme<sub>semelf</sub> spells out a subset of the lexicalization of processual Themes, i.e. Process is in a sense derived from a semelfactive event.

or take an Instrumental object, e.g.:

These objects are clearly not in the regular object position. They are not interpreted as UNDERGOERS, nor do they undergo passivization if in other than ACC case. In that sense they seem to be good candidates for Ramchandian rhematic objects or objects introduced by the low Applicative head. This discussion seems to suggest that we need to allow for two types of structures with semelfactives (see also (55) and (57) in section 2.2.2 for the analogy within the domain of processual Theme<sub>high</sub> verbs): one for the verb like wal-nq- $\acute{e}$  ('bang once'), and another for the verb like mach-nq- $\acute{e}$  ('wave'). That implies that there should in fact be two semelfactive Themes available in the lexicon, specified as in (129):

(129) a. 
$$-\mathbf{n}_1$$
-: [(R (,V<sub>Become</sub>,  $\nu_{sem}$ ))] b.  $-\mathbf{n}_2$ -: [(Appl (, $\nu_{sem}$ ))]

Appl is generally optional, and it is mutually exclusive with R. Then, the two roots under discussion would have the following lexical entries (where the availability of -i- in (130) and -aj- stands for the non-semelfactive variant of the predicates):

(130) a. 
$$\sqrt{wal} + n_1 + -i$$
  
b.  $\sqrt{mach} + n_2 + -aj$ 

Treating the semelfactive suffix as lexicalizing a distinct flavor of  $\nu$  is further supported by the fact that the light verb involved in semelfactives is often different from the light verb involved in Activities, as observed by Rothstein (2004).

One more interesting property of semelfactives in Polish is their inability to form SI. For the time being I only mention this fact. The details concerning SI fomation will be spelled-out in section 2.2.8.

The lesson to take home from this section is that the semelfactive suffix includes in its lexical specification a special instantaneous flavor of  $\nu$ , its distinctness being manifested, among other things, by the frequent inability to take any Resulting State predicate, special semantics, as well an 'unusual'

light verb in English.

# 2.2.7 Summary: different types of Themes

To recapitulate the findings so far, we have seen that the stem-forming morphology occurring in Polish has syntactico-semantic consequences. The particular conjugation class markers are lexically specified as spelling out different sizes of lowest portion of  $f_{seq}$ : the high Themes (-i/y- and -aj-) lexicalize  ${
m f}_{seq}$  up to u whose semantic content is Process or State. The low ones (inchoative -n- and -ej-) can spell out the structure no higher than  $VP_{Become}$ . Additionally, there is one more high Theme, which lexicalizes a special instantaneous type of  $\nu$ . The consequence of this is that Themes transparently signal a typology of verbs in Polish with different semantic and morphosyntactic properties. These different sizes of  $f_{seq}$  spelled out by stems correlate with particular argument configuration restrictions. The decomposition of the macro-event into causing Process or State  $(\nu P)$ , caused Transition (VP), and the Resulting State (RP) accounts for a certain degree of root flexibility, whereas types of Themes restrict this flexibility. The typology of Themes, as presented in 2.5, in order to be compelling, should correlate with some other syntactic properties. In other words, we expect Theme $_{low}$  stems to pass certain unaccusativity diagnostics (i.e. unaccusativity relevant to this level of structure - cf. the discussion in 1.4), whereas Themes<sub>high</sub> should fail exactly the same diagnostics. And the other way round for non-unaccusativity diagnostics.

Theme	insertion	augment	Aspect of	SI for-	expected
		by RP	bare form	mation	properties
-i-					
caus/inch	$ u + V_{Become} $	+	imp.	+	non-unacc.
unerg.	$\nu$	+	imp.	+	unerg.
fake tr.	$ \nu \; (+{\rm Appl}) $	-	imp	+	non-unacc.
deadject.	$ u + \mathrm{V}_{Become}$	-	no bare	+	non-unacc.
	adj in R		form		
-n- semelf.	$ u_{sem} + V_{Become} $	-	perf.	=	non-unacc.
	$\nu_{sem} \; (+ \; \mathrm{Appl})$				+ punctual
-n- inchoat.	$V_{Become}$	+	imp.	=	unacc.
-ej-	$V_{Become}$	-	imp.	=	unacc.
	adj in R				

Table 2.5: Typology of Themes

All of the Themes in Table 2.5 above the double line are high Themes, whereas the ones below the double line are low ones. In section 2.2.8 I exam-

ine the interaction of different types of verbs (signalled by different types of Themes) with Secondary Imperfective (SI) formation. The conclusion from this investigation will be that SI in Polish is an unaccusativity diagnostic. In chapter 3 other two unaccusativity diagnostics are examined: the reflexive marker (section 3.1) and so-called Impersonal Passive -NO/TO (section 3.2). It will turn out that these two tests also correlate with the different types of Themes.

One more issue needs to be raised. In the preceding discussion, whenever I talk about particular transitivity restrictions (e.g. deadjectival -i/y- stems being necessarily transitive, and Theme<sub>low</sub> stems never being transitive), it is not supposed to literally mean that the structure spelled out by the Theme<sub>high</sub> stems is transitive. In other words, I assume that  $\nu$  licenses an implied external argument by virtue of introducing a new sub-event, and thus creating a complex event. Yet, this external argument is more adjunct-like at this point in the derivation. This issue will be examined more carefully in Part II.

# 2.2.8 Secondary Imperfective

The particular decomposition of the macro-event finds support also in the possibilities of forming so-called Secondary Imperfective. There are two basic allomorphs of the SI: -aj- (identical to the conjugation class suffix -aj-) and -i/ywa-. Młynarczyk (2003), who refers to Czochralski's 1975 investigations of Polish verbs, presents different realizations of SI as multiplicity of morphological quirks. It is my contention that all the exceptional allomorphs of SI (e.g. -ewa-) are residual and that synchronically the allomorph of SI is quite predictable from the conjugation class. For example, I believe that the pair that Młynarczyk provides as a counterexample to the generalization that -i/y- stems take -aj- allomorph of SI: kup-i- $\acute{c}$  ('buy' $_P$ ) - kup- $owa\acute{c}$  (buy-imp-inf; 'buy' $_I$ ) should really be treated as two seperate verbs due to lack of palatalization effects. If  $kupowa\acute{c}$  was to be derived from  $kupi\acute{c}$ , the form expected after Polish phonology rules have applied is \* $kupiowa\acute{c}$  (cf. analogous top-i- $\acute{c}$  (sink-Th-inf 'melt') and wy-tapi-a- $\acute{c}$  (pref-sink-imp-inf; 'melt'). Instead, I believe that  $kupowa\acute{c}$  is an underived activity verb.

Let us first observe the functions of SI. SI can have two different readings: Progressive and Habitual/Iterative. This is illustrated in (132):

(132) a. Marek prze-bud-ow-**ywa**-ł kuchnię (kiedy weszła Marek pref-build-Th-**SI**-pst.3sg.m kitchen (when Maria Maria).
entered).
'Marek was transforming the kitchen (when Maria entered).'

b. Marek prze-bud-ow-**ywa**-ł kuchnię każdego roku. Marek pref-build-Th-**SI**-pst.3sg.m kitchen each year. 'Marek transformed the kitchen every year.'

In the present section I will focus first on the Progressive reading of the SI, and then, once the pieces of the analysis are in place, I will also relate to the Iterative/Habitual reading.

One thing that has to be observed about the SI is that it (almost<sup>46</sup>) always takes scope over the prefix. This is conspicuous in (133), where the prefixed verb in (133a) is incompatible with 'phasal' verbs, indicating that the derived form is perfective. In (133b), on the other hand, the SI suffix effectively 'nullifies' the contribution of the prefix, making the verb imperfective again.

- (133) a. \*zacząć prze-bud-owa-ć begin pref-build-Th-inf
  - b. zacząć prze-bud-ow-ywa-ć
     begin pref-build-Th-SI-inf
     'to begin to rebuild'

The next thing to notice are the restrictions on SI formation. Firstly, SI is impossible on bare (i.e. non-prefixed) stems, as illustrated in (134):

(134) a. \*mal-ow-ywa- $\acute{c}$  (paint-Th-SI-inf) b. \*kasz- $\varnothing$ -a- $\acute{c}$  (mow-Th-SI-inf)<sup>47</sup> c. \*leq- $\varnothing$ -iwa- $\acute{c}$  (lie-Th-SI-inf)

Admittedly, there is a group of verbs denoting prototypical habitual activities that *can* derive SI. Yet, this is a very marginal phenomenon and should rather be treated as a historical residue. The only reading that is present in the forms in (135) is habitual. The following is pretty much an exhaustive list:

(135)  $b(y)-ywa-\acute{c}$  ('be habitually'),  $gr-ywa-\acute{c}$  ('play habitually'),  $czyt-ywa-\acute{c}$  ('read habitually'),  $pis-ywa-\acute{c}$  ('write habitually'),  $chadz-a-\acute{c}$  ('go habitually'),  $sypi-a-\acute{c}$  ('sleep habitually'),  $jad-a-\acute{c}$  ('eat habitually'),  $siad-ywa-\acute{c}$  ('sit habitually')

For the aforementioned reasons I set the verbs in (135) aside and will not be preoccupied with them in what follows. To the extent that the ungrammaticality of (134) might be explained in terms of Blocking (i.e. there already is a form expressing exactly the same semantics, i.e. a bare stem), the same explanation cannot be invoked to rule out the Iterative/Habitual reading.

<sup>&</sup>lt;sup>46</sup>With the exception of the quite rare in Polish phenomenon of a prefix stacked on top of another - cf. Jablonska (2004).

<sup>&</sup>lt;sup>47</sup>I apply all the relevant phonological rules to the invented forms, e.g. Rubach's (1984) Derived Imperfective Tensing.

This is because bare stems, although they can, they do not have to express Iterativity/Habituality. Even if, however, the lack of SI of unprefixed verbs is derived through Blocking, there is still an array of stems in Polish which do not derive Secondary Imperfectives, as we will see below. Therefore, in what follows I will pursue a different explanation of these impossible SI forms.

The ungrammaticality of (134) must be compared with the relevant English examples. In English any (non-stative) bare stem can (in fact has to) undergo Progressive formation in order to refer to the Time of Speech, as in (136):

- (136) a. Mark is painting.
  - b. John is mowing.

The interesting question is what is the difference between Polish and English bare stems. In section 2.2.5 I have already outlined the direction of the explanation. Polish bare stems (to the exclusion of semelfactives) do not introduce Event Time. That makes them equivalent to stative verbs in English and mass nouns in the nominal domain. To be precise, I assume that they have a left temporal boundary of the Event (by virtue of the existence of the state preceding a dynamic eventuality - cf. Déscles and Guentchéva (1995)), but they lack the right one. This in effect makes their temporal extension open-ended. Stative verbs in both languages, on the other hand, lack both the right and the left boundary. This is because with stative verbs there is no other state preceding the state denoted by the stative predicate in question.

The next question that arises is why having a closed Event Time should matter for the Secondary Imperfective. In order to answer that part, I need to spell out certain assumptions about the Secondary Imperfective. I follow Zagona (1990), Stowell (1993) and Demirdache and Uribe-Etxebarria (2000) in taking both Tense and Aspect (i.e. SI in this case) to be dyadic predicates and maximal projections in syntax that take time-denoting phrases as arguments. The external argument of Aspect is a Reference Time (Assertion Time in Demirdache and Uribe-Etxebarria (2000)), and its internal argument is the time of the event denoted by  $\mathrm{VP}/\nu\mathrm{P}$  (ET). The particular proposal for Progressive Aspect (i.e. SI in our case) is in (137) (adapted from Demirdache and Uribe-Etxebarria (2000)).

(137) **Secondary Imperfective** is a spatiotemporal predicate with the meaning of WITHIN: it orders the Reference Time (RT) WITHIN the Event Time (ET); hence it selects for a delimited ET. RT must denote a homogeneous predicate.

The consequences of (137) are of two kinds. Firstly, it follows that bare stems in Polish are not able to derive SI since the selectional requirement of

Asp is not satisfied. In other words, because the temporal extension of the predicates expressed by bare stems is open-ended, the containment relation relevant for SI is not possible<sup>48</sup>. Secondly, the semantics of SI is such that it can only take an internal argument ET, which under the present terminology corresponds to  $\nu$ P that is an interval (in Rothstein's terms: [+stages]). In other words, the processual part is a prerequisite for SI formation. One final thing that follows from the definition in (137) is that although ET must be non-homogeneous, RT displays the opposite requirement: the temporal variable introduced by SI head needs to denote a homogeneous event.

Below I will explore the consequences of this proposal.

Note also that there is a prediction stemming from the assumed distinction between stative and eventive verbs in Polish. If statives have neither the left nor the right temporal boundary, then we predict that they will never be able to form SI, not even when prefixed. This is because if the role of the prefix is to set one of the boundaries (as was indicated already for DAs in 2.2.5), and if states lack both of the boundaries, prefixing will still result in an openended interval, which will be incompatible with the semantic requirements of SI. There is some indication that this prediction might be borne out. To wit, in verbs which are exclusively stative or ambiguous between stative and agentive readings, whenever they are able to form SI, the stative reading disappears:

- (138)  $koch-a-\acute{c}$  (love-Th-inf)  $po-koch-a-\acute{c}$  (pref-love-Th-inf; 'start loving') \* $po-koch-\varnothing-iwa-\acute{c}$  (pref-love-Th-SI-inf)
- (139)  $koch-a-\acute{c}$  (love-Th-inf)  $roz-koch-a-\acute{c}$  (pref-love-Th-inf; 'make sb love')  $roz-koch-\varnothing-iwa-\acute{c}$  (pref-love-Th-SI-inf; 'to be making sb love')
- (140) nudz-i- $\acute{e}$  (bore-Th-inf) przy-nudz-i- $\acute{e}$  (pref-bore-Th-inf; 'talk in a boring way') przy-nudz- $\varnothing$ -a- $\acute{e}$  (pref-bore-Th- $\mathbf{SI}$ -inf; 'to be talking in a boring way')
- (141)  $ciesz-y-\acute{c}$  (joy-Th-inf; 'make sb glad')  $po-ciesz-y-\acute{c}$  (pref-joy-Th-inf; 'console')  $po-ciesz-\varnothing-a-\acute{c}$  (pref-joy-Th- $\mathbf{SI}$ -inf; 'to be consoling')
- (142)  $stysz-e-\acute{c}$  (hear-Th-inf; 'hear')  $pod-stysz-e-\acute{c}$  (pref-hear-Th-inf; 'eaves-drop/hear sth accidentally')  $*pod-stych-\varnothing-iwa-\acute{c}$  (pref-hear-Th-imp-inf)
- (143)  $stuch-a-\acute{c}$  (listen-Th-inf; 'listen')  $pod-stuch-a-\acute{c}$  (pref-listen-Th-inf; 'eavesdrop')  $pod-stuch-\varnothing-iwa-\acute{c}$  (pref-listen-Th-SI-inf; 'to be eavesdropping')

<sup>&</sup>lt;sup>48</sup>Since the containment relation in an open-ended interval is possible in a strict sense, we need to add a stipulation that the SI requires both temporal boundaries of the event to be individuated. If any of the boundaries is missing, the temporal extension of the event is not visible for the SI to apply.

In all the grammatical cases of Secondary Imperfectives above, the stative reading is gone. One confirmation of this fact is the restrictions on the external argument of SI forms, namely the fact that they are ungrammatical with nonsentient subjects, though this is an option for unprefixed underived variants:

- (144) a. Ten film mnie nudzi / \*przy-nudz-a. this film  $me_{ACC}$  bore / pref-bore-SI 'This film bores me (\*by talking).'
  - b. Ten fakt mnie cieszy / \*po-ciesz-a.
     this fact me<sub>ACC</sub> make.glad / pref-make.glad-SI
     'This fact makes me glad /\*is consoling me.'

Since nonsentient inanimate DPs are incapable of acting agentively, they can only cause events by means of being a participant in a state (i.e. State leads to Transition). If this type of DPs is unavailable in (144) with SI variants, that means that the relevant verbs are agentive.

An aside on English is that since stative verbs in English would on this analysis come out as non-individuated, just as Polish eventive verbs, their Progressive forms should be impossible. That is in fact the case.

## (145) \*John is loving Mary.

The Progressive of English eventive verbs, on the other hand, is perfectly grammatical since they come from the lexicon equipped with the right boundary set up by  $\mathbb{R}^0$  at least potentially (as in the case of paint), or obligatorily (as in break) (cf. Ramchand's 2003 lexical features). Consequently, the containment relation is always possible<sup>49</sup>.

Turning now to particular Themes, in English, all the verbs that might potentially have the semelfactive reading allow Progressive formation since they are morphologically indistinguishable from their non-semelfactive variants. In (146) the activity reading is forced by the presence of the resultative predicate (i.e. on the assumption that the semelfactive event does not take RP).

(146) John is beeping me crazy.

On the other hand, Progressive of the semelfactive event diagnosed by the adverbial *once* is ungrammatical:

(147) \*John is beeping once.

More interestingly, however, in Polish there would be all sorts of restric-

<sup>&</sup>lt;sup>49</sup>It is a separate question, though, why the atelic version of *paint* would disallow overlapping with Time of Speech. In other words, why is the Progressive operator necessary with potentially ambiguous verbs.

tions on SI formation. These restrictions, I claim, correlate with conjugation classes and lend further support for the event decomposition assumed in the present work. Let us now examine the correlations.

## Theme $_{high}$ stems

High Themes lexicalizing  $\nu$  of a processual kind, i.e. -i/y- and -aj- are predicted to allow SI after its internal argument's (i.e.  $\nu$ P) temporal extension has been individuated by fixing the right boundary by means of RP. The overt manifestation of it is a prefix. This is because a predicate for which both boundaries have been fixed will allow SI since the Reference Time can be properly contained within the Event Time. This is illustrated in (148) for -i/y- stems, which take -aj- allomorph of SI as a rule, and in (149) for -aj- stems, which take -i/ywa- allomorph:

- (148) a.  $za\text{-}korzen\text{-}i\text{-}\acute{c}\ sie^P\ (pref\text{-}root\text{-}Th\text{-}inf; 'settle down') }za\text{-}korzen\text{-}i\text{-}a\text{-}\acute{c}\ sie^I\ (pref\text{-}root\text{-}Th\text{-}SI\text{-}inf)$ 
  - b. wy-gas-i- $\acute{c}^P$  (pref-go.out-v-inf; 'put out') wy-gasz- $\varnothing$ -a- $\acute{c}^I$  (pref-go.out-Th-SI-inf)
  - c. u- $\acute{s}p$ -i- $\acute{c}^P$  (pref-sleep-Th-inf: 'make sleep') u-syp-i-a- $\acute{c}^I$  (pref-sleep-Th-SI-inf)
- (149) a.  $wy\text{-}czyt\text{-}a\text{-}\acute{c}^P$  (pref-read-Th-SI-inf; 'read out')  $wy\text{-}czyt\text{-}\varnothing\text{-}ywa\text{-}\acute{c}^I$  (pref-read-Th-SI-inf)
  - b.  $o\text{-}sluch\text{-}a\text{-}\acute{c}^P$  (pref-listen-Th-inf; 'examine with stethoscope')  $o\text{-}sluch\text{-}\varnothing\text{-}iwa\text{-}\acute{c}^I$  (pref-listen-Th-SI-inf)
  - c.  $przy-śpiew-a-ć^P$  (pref-sing-Th-inf; 'sing for accompaniment)  $przy-śpiew-\varnothing-ywa-ć$  (pref-sing-Th-SI-inf)

Note that I assume that the non-SI variant is a base for deriving the SI variant, as opposed to certain approaches within Generalized Paradigm Morphology (cf. e.g. Spencer (2004)), which treat SI as a simple shift in the conjugation class and do not derive one form from the other. It seems to me that these approaches are at a loss when it comes to explaining certain phonological consonant alternations, for example the palatalizing effect of the Theme -i- in (148a), as well as the results of Iotation ( $s \rightarrow sz$ ) in (148b). Furthermore, in one case where the morphological exponent of the Theme is bigger than just a vowel (i.e. -owa-), we see the SI morpheme transparently attaching on top of the Theme. Pursuing a uniform analysis of all the Themes, it seems to me only natural to extend this fact to other conjugation classes.

The forms in (148) and (149) are predicted under the present analysis since high Themes -i/y- and -aj- with agentive readings always embed events which are [+stages] in Rothstein's (2004) terminology, i.e. their ET potentially has some duration. Moreover, their right boundary can be individuated by means

of a prefix. In this way they comply with the selectional requirements of SI. Finally, the Process denoting event in  $\nu^0$  is homogeneous, as all the atomic subevents are in the denotation of the whole process. If so, then the temporal variable introduced by the SI is a subset of the homogeneous predicate, and therefore homogeneous itself.

#### Semelfactives

Conversely to high processual Themes, semelfactives are predicted not to be able to form SI. The issue whether semelfactives have inherently fixed Event Time of the instantaneous type or is really immaterial. They are not able to form SI either from unprefixed, or from prefixed forms because semelfactive  $\nu$  lacks a process part, which might allow the Reference Time of the Progressive operator to be properly contained WITHIN Event Time. This prediction is indeed borne out:

- (150) a. \*wy-kop-n-ywa- $\acute{c}$  (pref-kick-sem-SI-inf; intended:'be kicking out once')
  - b. \*przy-pieprz-n-ywa- $\acute{c}$  (pref-pepper-sem-SI-inf; intended: 'be hitting once')
  - c. \*ze-skrob-n-ywa-ć (pref-scratch-sem-SI-inf; intended: 'be removing sth from surface by scratching once')

With respect to (150) note that the potential string -nywa- seems to comply with Polish phonotactics. There is a rule of Nasal Deletion (cf. Schenker (1954)) in Polish. Yet, the phonological environment is very different (i.e. before -t). Any theory that treats semelfactive -n- as purely inflectional stem-forming suffix is forced to posit an arbitrary morphophonological rule of -n- deletion for the cases of properly formed semelfactives in (151), or else stipulate that SI formation only applies to nonsemelfactive variants:

- (151) a. wy-kop- $\varnothing$ -ywa- $\acute{c}$  (pref-kick-Th-SI-inf; 'be kicking out')
  - b. przy-pieprz-Ø-a-ć (pref-pepper-Th-SI-inf; 'be hitting')
  - c. ze-skrob- $\varnothing$ -ywa- $\acute{c}$  (pref-scratch-Th-SI-inf; 'be removing sth by scratching')

The question is what is the identity of the Theme in (151). I argue that these are vocalic processual Themes:  $-a^{-50}$  in (151a) and (151c), and -y- in (151b). They all get deleted by a very productive hiatus resolving strategy, namely Jakobson's rule (cf. Jakobson (1948)). In fact, the shape of the SI morpheme seems to confirm it, assuming SI allomorphs are predictable, i.e. -aj- SI for -i/y- stems, and -i/ywa- for all the remaining classes. In section 2.2.6 I observed that semelfactives are not able to take lexical prefixes. From this perspective the existence of (151) would be unexpected if the missing

<sup>&</sup>lt;sup>50</sup>Note that I do not make claims about -a- stems as a class. In this particular case, however, the -a- stem seems to be equivalent to a high processual Theme.

Theme were to be identified with the semelfactive -n-. On the other hand, lexically prefixed forms with processual Themes exist, as shown in (152):

(152) a.  $wy\text{-}kop\text{-}a\text{-}\acute{c}^P$  (out-kick-Th-inf; 'kick out') b.  $przy\text{-}pieprz\text{-}y\text{-}\acute{c}^P$  (at-pepper-Th-inf; 'hit') c.  $ze\text{-}skrob\text{-}a\text{-}\acute{c}^P$  (from-scratch-Th-inf; 'remove by scratching')

The question whether semelfactive readings are being preserved in (151) or (152) is really immaterial. To the extent that every causative event (i.e. Process (causing Transition) causing Resulting State))) denotes a single macroevent, there is no point talking about semelfactivity of (151) or (152). Thus, I conclude that the semantics of SI and the semantics of semelfactivity are incompatible. In case there is a need to derive a SI, the non-semelfactive stem has to be used.

One more remark is in order. It might be contended that the inability of semelfactives to form SI stems from their inability to take lexical prefixes, as I showed in section 2.2.6. In this case, the punctual denotation of  $\nu_{sem}$  might be questioned. Yet, in the rare cases where reflexive semelfactives do take lexical prefixes, these are still not able to form a SI, as shown in (153).

- (153) a. za-mach-nq- $\acute{c}$  się (pref-wave-Th<sub>sem</sub>-inf refl; 'swing hand so as to prepare to throw sth')
  - b. wy-kopyrt-nq- $\acute{c}$  sie (pref-root-Th<sub>sem</sub>-inf refl; 'stumble and fall')
  - c. \*za-mach-iwa-ć się (pref-wave-SI-inf refl)
  - d. \*wy-kopyrt-ywa- $\acute{c}$  się (pref-root-SI-inf refl)

For this reason, the conclusion still holds: semelfactives are not able to form SIs due to the semantics of the light verb they lexicalize (i.e. lack of process part).

#### Theme<sub>low</sub> stems

Finally, let us turn to low Themes. In section 2.2.5 I have argued that the semantics contributed by  $V_{Become}$  that low Themes spell out is an S-sum of minimal transitions on the scalar structure associated with the property denoted by the root. If the Scale S is dense, then no matter how small the degree of change is, there is always a [+stages] component in the denotation of these verbs. Thus, the containment relation relevant for the Secondary Imperfective should find satisfactory conditions to apply. Yet, Secondary Imperfective of low Theme stems is always ungrammatical.

Let us start with inchoative -n- stems. Consider (154). All of the verbs in (154) must be first prefixed in order to derive a SI, as the prefix is necessary in order to assign a value to the degree argument d.

(154) a. przy-ślep-nq- $\acute{c}^P$  (pref-blind-Th-inf; 'get slightly blind') - \*przy-ślep-(n)-ywa- $\acute{c}^I$  (pref-blind-Th-SI-inf)

b.  $przy-gluch-nq-\dot{c}^P$  (pref-deaf-Th-inf; 'get slightly deaf') - \* $przy-gluch-(n)-ywa-\dot{c}^I$  (pref-deaf-Th-SI-inf)

None of the forms of SI (i.e. with or without the inchoative suffix) is acceptable, contrary to expectations. This is where the homogeneity of RT comes into picture. I submit that the failure of low Theme stems to yield SIs is due to the fact that the temporal extension that the Progressive would introduce would never be homogeneous due to the presence of a differential argument d. Specifically, in low Theme stems each minimal subevent is outside the denotation of the whole predicate denoting their S-sum due to the fact that each of them will have a different value for  $d^{51}$ . When a SI attaches on top of high Theme stems on the other hand, which also posses  $V_{Become}$ , the effect of the latter is immaterial since the Progressive operates directly on the subevent located in the light verb. This is a homogeneous process augmented by a fixed right boundary, and therefore the interval delimited by the Progressive will also be homogeneous, in accordance with the requirement in (137). Thus, the proposal is that low Theme stems, although superficially indistinguishable from activities, are in fact non-homogeneous due to their highest event-denoting head being trasnitional in nature.

However, in very many cases, there are SI variants of inchoative -n- stems, except that the inchoative -n- again has to disappear, as in (155):

- (155) a. wy-marz-nq- $\acute{c}^P$  (out-freeze-Th-inf; 'get frozen out') wy-marz-a- $\acute{c}^I$  ('out-freeze-aj-inf')
  - b. roz-mok-nq- $c^P$  (pref-wet-Th-inf; 'get soaked into pieces') roz-mak-a- $c^I$  (pref-wet-aj-inf)
  - c. wy-gas-nq-c<sup>P</sup> (out-go.out-Th-inf; 'go out/expire') wy-gas-a-c<sup>I</sup> (out-go.out-aj-inf)

Note that the suffix that occurs with the imperfective verbs in (155) might potentially be analysed as either a Theme or a Secondary Imperfective morpheme. Thus, one hypothesis might be that the stems are redirected to a high processual conjugation class (-aj) and a zero SI allomorph is added. This would, however, go against the general approach undertaken in the present work and related to *lavish insertion*, namely doing away with zero morphology (cf. section 1.2 for discussion). In principle, a different parse is possible: the conjugation class shifts to some vocalic Theme and then the SI allomorph -aj- is added. The vowel is subsequently deleted by Jakobson's rule. What speaks against the latter hypothesis is the fact that -i/ywa- is the default allomorph of the SI, and not -aj-. The allomorph -aj- only oc-

 $<sup>^{51}</sup>$ Again, if the change takes place at a varying pace, the intervals during which no change has taken place will not count as separate atomic events. This is due to the fact that the value of d that is taken into consideration is the one at the beginning and end of an event.

curs with -i/y- stems like gas-i- $\acute{c}$  ('put out'). If, however, SI -aj- were to be attached on top of the Theme -i-, this class marker would leave traces (i.e. the results of Iotation:  $s \to sz$ ), as in its causative SI wy-gasz- $\varnothing$ -a- $\acute{c}^I$  (outgo.out-i-SI-inf; 'put out'). Yet, there is no Iotation in (155c). Therefore, I propose that in (155) exceptionally the Theme -aj- spells out the structure including SI projection. That might in itself not be that surprising, as I will argue that in fact Themes might swallow up even more structure than the locus of SI. What is exceptional about (155) is that the Theme is positively specified for the feature relevant for SI, i.e. it yields the semantics of Progressivity/Iterativity. This, however, does not cause any system-internal problems, since the variant in (155) will always stand out as distinct morphologically from the usual inchoative -n- suffix taken by these roots. The structural representation is in (156).

(156) 
$$\begin{bmatrix} SIP & SI^0 \begin{bmatrix} \nu_P & DP & \nu_P \end{bmatrix} \end{bmatrix} \begin{bmatrix} VP & t_{DP} & V^0 \begin{bmatrix} RP & t_{DP} & R^0 \end{bmatrix} \end{bmatrix} \end{bmatrix}$$
pref

Since the root has been redirected to a high Theme conjugation class (i.e. -aj-), the SI can attach on top of this structure. Anticipating the discussion relating to the hierarchy of light verbs (cf. chapter 4), it is noteworthy to observe that the light verb represented in (156) is the first of the light verbs. Once this is present in the structure, all of the remaining light verbs must also be present, other things being equal. The argument originates as a RESULTEE, but moves to check the UNDERGOER feature, as well as the external argument feature. As we will see in the next chapter, this is in fact the only situation where checking both the internal and the external thematic feature by the same argument can go 'unlicensed'.

Let us then be more specific about the lexical specification of -aj. As Theme<sub>high</sub>, it has the specification in (157). (158) represents its lexical entry as a Secondary Imperfective morpheme, and finally (159) is its spell out as a SI form of inchoative -n- stems.

- (157) a. Theme -aj-:  $[(R(,V_{Become}, \nu_n, \nu_{n+1}, ...))]$  for transitives
  - b. Theme **-aj-**: [(Appl  $(\nu_n, \nu_{n+1}, ...)$ )] for unergatives and fake transitives
- (158) SI -aj-: [SI,  $\nu_{n+1}, \dots$ ]
- (159) Theme and SI -aj-: [(R (,V<sub>Become</sub>,  $\nu_n$ , SI,  $\nu_{n+1}$ , ...))]

The question is now whether these three uses can be collapsed. I think the answer to this question must be negative for the following reasons. Collapsing (157) with (158) would always fail since the two have diverging specification with respect to SI (i.e. negative in the former, and positive in the latter case). On the other hand, collapsing (158) and (159) seems possible, as the

two have identical specification with respect to SI. Thus, the collapsed entry would have to involve up-squezing of -aj- by another Theme vowel (i.e. -i-) in cases where -aj- functions exclusively as a SI. This is shown in (160):

(160) -aj-: 
$$[(V_{Become}, \nu_n), SI, \nu_{n+1}, ...]$$

The solution in (160) yields a desirable result of morphological identity of the SI instantiation of -aj- and the Thematic vowel -aj-. Note, however, that no other Theme<sub>high</sub> can undergo such up-sqeezing<sup>52</sup> since no other Theme<sub>high</sub> is specified positively for SI. Consequently, we are left with three lexical entries for -aj-:

(161) a.  $\mathbf{aj_1}$ : [(R (,V<sub>Become</sub>,  $\nu_n$  , $\nu_{n+1}$ , ...))] for transitive (Theme) b.  $\mathbf{aj_2}$ : [(Appl ( $\nu_n$ ,  $\nu_{n+1}$ , ...))] for unergatives and fake transitives (Theme) c.  $\mathbf{aj_3}$ : [(R (V<sub>Become</sub>,  $\nu_n$ ), SI,  $\nu_{n+1}$ , ...)] (Theme+SI or just SI)

Coming back to inchoative Theme<sub>low</sub> stems and recapitulating a bit, inchoative -n- stems are not compatible with the semantics of SI since they are not homogeneous events, and therefore any interval that is picked up by the Progressive will violate the requirement that it be homogeneous. Whenever there is a need to form a SI, the roots are necessarily redirected to a high processual Theme class. In that sense they resemble semelfactives. The lexical entry for the root  $\sqrt{mrz}$  ('freeze' from (155)) is presented in (162):

When the thematic vowel -i is inserted on top of the root, the structure involves a light verb system, and the external  $\Theta$ -role is checked by Merge. Hence a transitive configuration arises. If, on the other hand, the inchoative conjugation marker -n- is present in the Numeration, the structure will be unaccusative (i.e. without a light verb system) and necessarily intransitive. Finally, when the root combines with -aj-3, the semantics associated with SI is present, as well as the light verb system, but the external  $\Theta$ -role is checked by Move<sup>53</sup>.

Turning now to low Theme -ej- stem, we see that they are never able to derive SI either. In (163) neither of the SI allomorphs (-aj- or -ywa-) is

 $<sup>\</sup>overline{\phantom{a}}^{52}$  The other allomorph of SI, i.e. -iwa/ywa- does not function as a Thematic vowel at all.

 $<sup>^{53}</sup>$ Alternatively, no internal Θ-role is present. It is difficult to see how the semantic interpretation would differ depending on which hypothesis is adopted. No internal Θ-role hypothesis would have the advantage to the effect that licensing by a reflexive clitic is not longer required (cf. section 3.1).

grammatical.

- (163) a. \*wy-pięk-n-ywa-ć/\*wy-pięk-ni-a-ć pref-beaut-adj-imp-inf/pref-beaut-adj-imp-inf
  - b. \*ze-szpet-n-ywa-ć/\*ze-szpet-ni-a-ć pref-ugly-adj-imp-inf/pref-ugly-adj-imp-inf

(163) might initially be taken as flowing from the non-homogeneous nature of -ej- stems, similarly to inchoative -n- stems. Yet, the question is why the option of redirecting the same roots into a different conjugation class, which was operative in the case of inchoative -n- stems, is not available for -ej- stems. I submit that the reason is the deadjectival derivational history of -ej- stems. Since they have an embedded adjective below the Theme (cf. the structure in (89) in section 2.2.4) that spells out the whole subsequence: [P,R], they are not able to take lexical prefixes (which spell out  $P^0$ ). That fact results in a situation where the only type of prefix that -ej- stems can take is the pure perfectivizing prefix (most often z(e)-)<sup>54</sup>. Purely perfectivized verbs, however, display a general ban on SI formation, whatever the reason for that might be.

#### Motion verbs

The last issue that is related to SI formation is motion verbs. In section 2.2.2 (cf. Table 2.3) I illustrated the distinction present in the verbal system of Polish, namely the distinction between directed and non-directed motion verbs. There I concentrated mainly on non-directed -i/y- stems. Here, however, the focus is on directed motion verbs. I enumerate some in 2.6.

dir. motion	class	non-dir. motion	class	gloss
nieść	C-stem	nosić	-i- stem	'carry'
wieźć	C-stem	wozić	-i- stem	${}^{'}{ m transport}{}^{'}$
płynąć	C-stem	pływać	-aj- stem	'swim $'$
biec	inchn- stem	biegać	-aj- stem	'run'
lecieć	-e- stem	latać	-aj- stem	'fly'

Table 2.6: Motion Verbs II

Note first that the non-directed motion verbs are used not only in case the motion does not have any particular direction, but also as Progressive forms of directed motion verbs. Consider (164):

(164) Maria wy-nos-i-ła meble na śmietnik, kiedy Maria out-carry-v.imp-pst.3sg.fem furniture to rubbish.skip when wszedł Jan. entered Jan

<sup>&</sup>lt;sup>54</sup>and 'considerable change' po- -cf. Jablonska (2004).

'Maria was carrying the furniture out into the rubbish skip when Jan entered.'

In other words, directed motion verbs, similarly to inchoative -n- stems and deadjectival -ej- stems, cannot undergo Secondary Imperfectivization. Instead, whenever the relevant semantics needs to be expressed, they are redirected to a high Theme stems (i.e. non-directed motion verbs). In section 2.2.2 I have already hinted at the reasons for this behavior. Similarly to low Theme stems, with directed motion verbs the highest subevent in the whole macroevent is a head with transitional semantics. Differently from low Theme stems, however, there is no way to make a general claim about the level of of  $f_{seq}$  at which the upper bound of the Theme is. Rephrasing a bit, every directed motion stem needs to be considered separately and submitted to independent language-internal diagnostics in order to establish whether the light verb system is or is not present in its structural representation. E.g.  $i\acute{s}\acute{c}$  ('go/walk') might be considered 'unaccusative' low Theme stem in view of the fact that it fails Impersonal Passivization in (165):

(165) \*Idnię-t-o/ \*Po-szednię-t-o do szkoły. go-PASS-o/ pref-go-PASS-o to school intended: 'Someone went to school.'

On the other hand, transitive  $nie\acute{s}\acute{c}$  ('carry') absolutely cannot have an unaccusative structure. This is also confirmed by its grammaticality in Impersonal Passivization:

(166) Niesio-n-o to do szkoły. cary-PASS-o this<sub>ACC</sub> to school 'Someone was carrying it to school.'

The lexical entry for both verbs in question is presented in (167), together with the specification of their Themes. Since  $i\acute{s}\acute{c}$  is irregular, and  $nie\acute{s}\acute{c}$  is a consonantal stem, the notion 'Theme' should be treated rather abstractly, or else the relevant structure should be spelled out by the ROOT.

(167) a. 
$$\sqrt{id}$$
: [R, V<sub>Become</sub>]  
b.  $\sqrt{nies'}$ : [R/Appl,  $\nu_{Become}$ ]

In (167b) I take the relevant verb to not involve  $V_{Become}$ , as it does not participate in the causative/inchoative alternation (cf. section 3.1 for the relevant discussion). Thus, whenever no lexical prefix is present, the object of  $nie\acute{s}\acute{c}$  will be introduced by an Applicative head. When RP is present, the relevant object wil merge as a RESULTEE.

Now, I subscript the relevant light verb with transitional semantics as  $\nu_{Become}$  in order to bring out the parallel with  $V_{Become}$ . Yet, it should be understood in a more general way, i.e. in *John ran to the shop* it is John's gradual 'be-

coming closer to the shop' that is implied. In turn, if the light verb present with directed motion verbs is an S-sum of minimal transitions, it follows that the Secondary Imperfective cannot attach on top of it, since the predicate denoted by its complement would be nonhomogeneous, and consequently the RT introduced by the Secondary Imperfective would also be nonhomogeneous.

On the other hand, it is not accidental that all of the non-directed motion equivalents end up as high processual Themes, i.e. either -i/y- or -aj-. They either denote Activities (in their basic use) or else Progressive forms of directed-motion verbs. Again, this kind of behavior remains a morphological aberration under any theory that deprives stem-forming suffixes of syntactico-semantic consequences. The reader will note that the structure in (156), repeated here as (168) for convenience, is also relevant for Progressive directed motion verbs. The root is redirected to a Theme<sub>high</sub> class, which additionally lexicalizes also SI.

(168) 
$$[_{SIP} \quad SI^0 \mid_{\nu P} DP \quad \nu P \mid_{VP} t_{DP} \quad V^0 \mid_{RP} t_{DP} \quad R^0 \mid_{DP} \quad P^0 \mid]]]]]$$

In that sense Progressive directed motion verbs cease to be an exception to a very robust generalization to the effect that prefixed verbs are always perfective. On the analysis where no SI projection is involved in (169), they remain a curious exception (i.e. prefixed and imperfective).

Summarizing the results of this section, the analysis of the SI as an Aspectual head taking two temporal arguments and relating them by means of relation WITHIN (based on Demirdache and Uribe-Etxebarria (2000)) allowed me to account for the difference in the Progressive formation between English and Polish stems. It also substantiated the analysis of conjugation class suffixes in terms of high vs low Themes, where it is only the former that encode nonderivative process (excluding the semelfactives). Therefore, only high processual Themes -i/y- and -aj- displayed the ability to derive SIs. Taken to its logical conclusion, this fact yields a prediction that all the derived imperfective verbal forms will in effect be non-unaccusative in the sense of possessing  $\nu$  shell. I will investigate this prediction in chapter 3 and also in section 3.2.3.

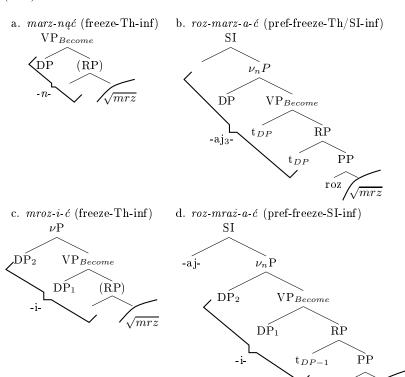
I have also noted an interesting phenomenon of roots oscillating between different Themes in case there was a need (i.e. under SI formation). This phenomenon, however, is quite restricted. It is basically only inchoative -n-stems, as well as directed motion verbs augmented by lexical prefixes that can be redirected, and not even all of them. An interesting question is why these redirections do not give rise to causative/transitive verbs. E.g. SI variants in (155) can never be used transitively:

(169) \*Marek wy-gas-a-l ognisko.

Marek pref-go.out-Th.imp-pst.3sg.m fireplace intended: 'Marek was putting out the fireplace.'

Possibly, the reason is that these forms exist in opposition to causative -i/y-stems based on the same roots, i.e.  $wy\text{-}mra\dot{z}\text{-}\varnothing\text{-}a\text{-}\acute{c}$  ('be freezing sth'),  $wy\text{-}gasz\text{-}\varnothing\text{-}a\text{-}\acute{c}$  ('be putting out sth'),  $roz\text{-}macz\text{-}a\text{-}\varnothing\text{-}\acute{c}}$  ('be soaking sth')<sup>55</sup>. In order to be fully explicit, I present the structural representations of (i) the ROOT taking an inchoative -n- Themelow; (ii) the same ROOT redirected to a processual Themehigh in its SI variant; (iii) the same ROOT taking a Themehigh -i-; and (iv) SI variant of -i- stem.

(170)



(170b) shows furthermore that the CAUSE relation is really epiphenomenal and is not inbuilt in the structure. This is because the event is complex in (170b), i.e. it consists of the Result State (in RP), the Transition subevent (in  $VP_{Become}$ ) and the Process subevent (in  $\nu_n P$ ). Yet, it is not interpreted causatively in any obvious sense. I conclude that the label 'causative' is a misnomer stemming from the fact that in the general case two different par-

 $<sup>^{55}</sup>$ Note the result of Iotation in all the transitive forms - the side effect of the presence of the Theme -i-.

ticipants would be involved in the two subevents (as in (170c) and (170d)). Hence, it is probably the speakers' only option to relate the two subevents to each other by means of the relation CAUSE. Whether it lies in the domain of our cognitive abilities or is related to world knowledge, it does not have any syntactic representation, and as such is not of interest here.

The final remark concerns the other reading of the verbs with Secondary Imperfective morphology, i.e. Habitual/Iterative. At this point, let me explicitly spell out the assumptions about both of the readings of SI. For the Progressive reading, I follow Demirdache and Uribe-Etxebarria:

## (171) a. Secondary Imperfective (Progressive)

SI is a spatiotemporal dyadic predicate with the semantics of central coincidence WITHIN that orders its external argument -RT- WITHIN Event Time (ET). In this sense it selects for a delimited interval ET. RT must be homogeneous

#### b. Secondary Imperfective (Iterative)

SI is a spatiotemporal dyadic predicate that multiplies infinitely the Event Time (ET) and orders RT OUTSIDE multiplied ET. Since multiplication is infinite, the result is a non-delimited predicate. Since the event must be individuated for multiplication, it selects for delimited predicates. RT must be homogeneous.

In this sense both of the uses of SI require 'individuation' of the event's temporal span. In other words, both uses of SI can only apply to perfective verbs. For a detailed examination of how this is done, and the syntactico-semantic analysis of aspectual levels in Polish the reader is referred to Jablonska (2004). Furthermore, the reason why Iterative SI cannot apply to delimited low Theme stems (cf. (172), which can have neither Progressive nor Iterative readings) is identical to the reason Progressive didn't attach on top of low Theme stems, i.e. the non-homogeneous nature of Themelow stems. Out of all Themelow stems it is only inchoative -n- stems that are testable since deadjectival -ej- stems do not take lexical prefixes, and hence cannot form SI to begin with.

- (172) a. przy-ślep-nq- $\dot{c}^P$  (pref-blind-Th<sub>low</sub>-inf; 'get slightly blind') \*przyślep-(n)-ywa- $\dot{c}$  (pref-blind-Th<sub>low</sub>-SI-inf)
  - b. roz-marz-nq- $\acute{c}$  (pref-freeze-Th $_n$ -inf; 'defreeze into pieces') \*roz-marz-(n)-ywa- $\acute{c}$  (pref-freeze-Th $_n$ -SI-inf)

Thus, the same restrictions that hold of the Progressive use of Secondary Imperfective also holds of the Iterative one. Below I enumerate the groups of verbs which do not form Secondary Imperfectives and specify the reason for it:

- deadjectival -ej- stems: no possibility to take a lexical prefix since R occupied by the adjectivizer → no SI;
- inchoative -n- stems: transitional non-homogeneous nature of the predicate denoted by V<sub>Become</sub> → no SI;
- directed motion stems: transitional non-homogeneous nature of the predicate denoted by either  $V_{Become}$  or  $\nu_{Become} \rightarrow$  no SI;
- semelfactives: no Process part available in the denotation of  $\nu_{sem} \rightarrow$  no containment relation possible  $\rightarrow$  no SI.

In the next chapter I will explore the interaction of the typology of verbs established throughout this chapter with reflexive marking and Impersonal Passivization.

# Chapter 3

# Split Intransitivity

# 3.1 The reflexive marker and conjugation classes

#### 3.1.1 Preliminaries

The issue concerning the proper (and unified) analysis of the reflexive marker is a well-established and frequent trend in the argument structure literature. Unfortunately, the amount of research done on the topic can hardly be said to correlate with any understanding of the phenomenon. Researchers still disagree on the module that should handle the occurrence of the reflexive marker (i.e. lexicon vs syntax, although even parametrized approaches have been adopted - cf. e.g. Reinhart and Siloni (2004), Marelj (2004)), on the status of the marker (the pronominal vs valency-reducing marker), the relation to Case assignment, as well as the very need for a unified account. Although I could not plausibly do justice to the whole literature on reflexivity, nor offer an elaborate and self-contained theory of the reflexive marker, it seems necessary to include the present section, as the reflexive marker enters into nontrivial interaction with the conjugation class system, and hence seems to support the event decomposition argued for in the present work.

#### Teasing apart the different uses of 'anaphoric' reflexive

Firstly, let me delimit the scope of investigation. This section deals exclusively with what might be referred to as anaphoric uses of the reflexive (following Manzini (1986), who distinguishes  $se_1$  - a free variable and  $se_2$  - a bound one)<sup>1</sup>. The term anaphoric should really be treated as purely mnemonic, since, as it will turn out, anaphoricity of the relevant item will be redundant under the present analysis. To the extent that the label anaphoric is valid here, it refers to a property of the relevant constructions whereby one and the same DP argument is semantically interpreted as bearing two

<sup>&</sup>lt;sup>1</sup>I will have something to say about the nonanaphoric uses of the reflexive, namely Middle and Impersonal Reflexives in chapter 5.

thematic roles. The four uses under discussion are illustrated below. (1) is a reflexive use of the clitic, which comprises a group of verbs denoting self-directed actions, and which do not require or even prohibit the use of a full-fledged argumental anaphor (i.e. the anaphor of the SELF type to use Reinhart and Reuland's (1993) terminology). The English equivalent of this use would involve verbs which can be interpreted reflexively without any overt anaphoric element whatsoever (i.e. wash, comb, etc.). (2) is an example of the inchoative/anticausative construction, which needs to be teased apart from the Middle use (cf. the discussion below). (3) is an inherent reflexive which I will refer to as Reflexiva Tantum - verbs which necessarily occur with the reflexive clitic, and finally (4) is a prefix-induced reflexive, where the reflexive clitic cooccurs with a certain type of prefix (most often roz-, wy-, za-, na-, do-) called here a lexical prefix (cf. Isačenko (1960), Romanova (2003), Ramchand (2004), Svenonius (2004)).

- (1) Marek czesze się.  $Marek_{NOM} comb_{pres.3sg}$  refl 'Marek combs (himself)'.
- (2) Marek/ Szafa przewrócił-(a) się.  $Marek_{NOM.m}/$  wardrobe $_{NOM.f}$  overturn $_{pst.3sg}$ -(fem) refl 'Marek/ the wardrobe overturned.'
- (3) Marek poci się. Marek sweat<sub>pres.3sg</sub> refl 'Marek is sweating.'
- (4) Marek roz-gadał się. Marek pref-talk<sub>pst.3sg.m</sub> refl 'Marek went into talking.'

So far the anaphoric interpretation of one argument as bearing two thematic roles is probably only intuitively clear with respect to (1). I will, however, propose an analysis where other roles in a fine-grained decomposition of the lower domain are unified in one participant for all the four uses illustrated above.

Some discussion of the classification is in order as it is different from the one assumed e.g. in Wilczewska (1966) and Szymańska (2000). The former involves numerous small groups delimited on a semantic basis. It is not clear, however, that the identified semantic differences are structural in nature. The two aspects of Szymańska's (2000) theory that I would like to raise are:

• grouping inherent reflexives with prefix-induced ones, and labelling them both as *Reflexiva Tantum*. This fact stems from the limitation of her system, namely the fact that the prefix is not given an independent status. Although I will not really present an answer to the question

why the relevant verbs are tantum, the inherent reflexives and the prefix-induced reflexives will be taken to involve a different structural configuration. This is possible in the present system, where the lexical prefix is a morphological exponent of a separate very low functional projection PP -a complement to RP (Result Phrase) adopted from Ramchand (2003), Ramchand and Svenonius (2002), and subsequent work. The group of Reflexiva Tantum in this narrow sense, on the other hand, will be argued to be parasitic on two different structures: (i) the one relevant for reflexive uses in (1); or (ii) the one relevant for anticausative uses in (2). This type of division, as far as I can see, accounts for the seemingly circumfixing nature of prefix-induced reflexives, as well as varying degree to which a self-directed nature of various Reflexiva Tantum verbs is visible.

- Szymańska also groups Middles with inchoatives/anticausatives, claiming that the difference in interpretation really stems from the interaction with aspectual properties. This assumption reflects the general tendency of Middles to be associated with generic, and anticausatives with episodic contexts (cf. e.g. Cinque (1988)). For instance (5a) is taken by Szymańska as inchoative (i.e. anticausative, strictly speaking), and so is (5b).
  - (5) a. Zawiązało się nowe towarzystwo charytatywne.  $tie_{pst.3sg.n}$  refl new association<sub>NOM</sub> charitative 'A new charity was founded.'
    - b. Ten dom buduje się od trzech lat. this house build $_{pres.3sg}$  refl for three years. 'This house has been being built for three years.'

(Szymańska, 2000:127,(9bc))

For Szymańska both cases involve a Subject specified as [+cause, +affected] (building on Rozwadowska's (1992) system of features). Collapsing the two seems to me to be unjustified for the following reasons. Firstly, there are clear interpretative differences between anticausative construction, which I claim to be represented by (5a) only, and Middle/Passive construction illustrated in (5b) on my view<sup>2</sup>. In (5b) there clearly is some other Agent implied, as opposed to (5a), although this Agent cannot be realized overtly e.g. in a by-phrase in Polish. Although it is difficult to find differentiating contexts for the two verbs in (5), switching to other predicates seems useful. Then it turns out

<sup>&</sup>lt;sup>2</sup>In fact, distingushing between Middles and Passives can be more problematic, as it will turn out in chapter 5. Since it does not bear on the present discussion I group Middle and Passive together for the time being.

that for some predicates the anticausative interpretation is simply unavailable, irrespective of the episodic/generic context. For other predicates, however, there are clearly two interpretations available, with discernible semantic differences. Thus, the canonical Middle construction of the type in (6) cannot be used in a context where it is an inherent property of the bread that it easily gets transformed in shape from a loaf into slices. Yet, in the anticausative in (7), the reading where the untying happens without anyone's intervention is perfectly plausible (alongside the Middle reading).

- (6) Ten chleb latwo się kroi. this bread NOM easily refl cut pres.3sg 'This bread cuts easily.'
- (7) Ta sznurówka łatwo się rozwiązuje. this lace $_{NOM}$  easily refl untie $_{pres.3sg}$  'This shoelace gets untied/can be untied easily.'

The difference cannot be reduced to episodic vs generic contexts since both (6) and (7) are generic contexts.

Related to this difference is the fact that the two constructions apply to a very different range of predicates, i.e. Middle can apply to verbs which are necessarily caused by human agents (e.g. 'build', 'amputate', etc.), whereas this is impossible for anticausatives. If the difference were only aspect, then (5b) or (6) should switch to an inchoative interpretation in the perfective past Tense episodic context, but it is clearly ungrammatical<sup>3</sup>:

- (8) a. #Ten dom z-budował się w trzy lata. This house $_{NOM}$  pref-build $_{pst.3sg.m}$  refl in three years. intended: 'This house got built in three years.'
  - b. #Chleb na wczorajszą kolację po-kroił się. bread for yesterday dinner pref-cut $_{pst.3sg.m}$  refl intended: 'The bread for yesterday's dinner got cut.'

For Szymańska, the unacceptability of (8) probably stems from the restriction in LCS of the verb (i.e. the fact that the LCS of the verb specifies Subject as [+sentient] and [+sentient] subjects cannot be 'suppressed'<sup>4</sup>). Yet, this seems to yield a problem for a minimal pair in (9), where the verb is also argued to involve obligatorily sentient Subject:

<sup>&</sup>lt;sup>3</sup>Again, the ungrammaticality is taken to be categorical on an inchoative reading only, since speakers differ in the degree to which they allow a Passive reading in the example under discussion.

<sup>&</sup>lt;sup>4</sup>This conclusion, arrived at in Rozwadowska (1992) is in fact very interesting in the context of chapter 5, where I will argue that human (i.e. [+sentient] in Rozwadowska's

- (9) a. \*Film już się obejrzał. film $_{NOM}$  already refl watch $_{perf.pres.3sg.m}$  intended: 'The film got watched.'
  - b. Film się właśnie ogląda.<sup>5</sup> film<sub>NOM</sub> refl just watch<sub>imp.pres.3sg</sub> 'The film is just being watched.'

The inchoative is impossible, as opposed to the Middle/Passive, which seems to indicate that the latter construction does not exclude the possibility of there being a sentient Agent implied. Thus, I would like to keep Middles apart from the other uses, at least for the purpose of this section. Middles/Passives are Manzini's (1986) free variables, and hence are of no interest at this point.

#### Bare stem inchoatives $\neq$ anticausatives

Let me first turn to anticausatives in (2). The question is what is the relation, if any, of the anticausative to its transitive variant (cf. also the discussion in section 2.1.1). Both lexical as well as syntactic approaches agree that having two separate entries for the transitive and the intransitive variant of causative/inchoative alternation would in fact miss an important generalization. E.g. within the projectionist endoskeletal approach of Reinhart (1996), Reinhart (2002), Marelj (2004) this concern is encoded as Lexicon Uniformity Hypothesis:

# (10) Lexicon Uniformity Hypothesis

Each verb-concept corresponds to one lexical entry with one thematic structure. The various thematic forms of a given verb are derived by lexical operations from one thematic structure.

(Reinhart (1996:(6)))

On a syntactic neo-constructionist approach the same concern manifests itself as e.g. optional  $\nu$  categorial feature in Ramchand (2003):

(11) 
$$break [(\nu), V, R)]$$

The one-lexical-entry assumption is thus independent of whether a particular approach is projectionist or constructionist, nor of the assumption about

terminology) Subjects emerge at a higher level, and once the derivation reaches this level, the relevant argument's presence will be necessarily conspicuous in a variety of syntactic tests

<sup>&</sup>lt;sup>5</sup>Szymańska (2000) puts '??' next to this example. All the speakers I consulted (myself included) accept the example, given enough context. In general, the problem with Mediopassives in Polish is that they are very much contextually dependent and a bit of negotiation of context usually makes native speakers accept the examples.

which of the variants is the basic one, and which one is derived. The particular assumption, however, rests on the semantic entailment argument, which I consider at least partly misguided for the reason to be specified below. Thus, Marelj (2004:21) observes the purported parallelism in the semantic entailment of (12) and (13):

- (12) a. Peter melted the ice.  $\rightarrow$ 
  - b. The ice melted.
- (13) a. Peter broke the window.  $\rightarrow$ 
  - b. The window was broken by Peter.

In order to make the argument convincing I view it necessary to switch to Polish, as the judgements are quite delicate. Thus, it seems to me that to the extent that the active variant in (13b) does entail (13a), the same does not hold of anticausatives in Polish (14):

- (14) a. Piotr zepsuł telewizor.  $\rightarrow$  Piotr<sub>NOM</sub> spoil<sub>pst.3sg.m</sub> TV<sub>ACC</sub> 'Piotr broke the TV.'
  - b. Telewizor zepsuł się.  $\mathrm{TV}_{NOM}$  spoil $_{pst.3sg.m}$  refl 'The TV broke.'

The two sentences have different truth conditions: in (14a) the participant in the Causing subevent is distinct from the Undergoer (i.e. participant in the caused subevent). In (14b), on the other hand, the only argument possesses certain properties that cause it to undergo the caused event. As we will see below, on the hypothesis advanced in this chapter the structural lack of entailment is simply viewed as in (15) (see below for the more precise neo-Davidsonian representation):

#### (15) a. $X \text{ CAUSE } Z \rightarrow Y \text{ CAUSE } Z$

The question is, however, how the *impression* of the entailment arises. I submit that this is due to extra-linguistic factors, namely the way we conceive of causation. World knowledge allows for multiplication of the intermediaries in a causal chain probably ad infinitum. To give a concrete example, in a sentence John cut the bread the first approximation of a causal relation is the event whose participant is John causing another event of the bread changing its shape. Yet, world knowledge tells us that in order for the latter event to take place, there must exist another subevent whose participant is an intermediary of the Instrument type, e.g. a knife. Similarly, another necessary subevent must be the state of the bread possessing a certain type of property that enables it to undergo a change. I suggest that exactly the latter scenario is the one responsible for the purported entailment from the transitive

to the anticausative variant of the alternating verbs. A word of caution is in order: the infinitely fine-grained decomposition of causal relations might be a true congnitive mechanism, but it is distinct from the linguistic structural representation of subevents. In fact, one of the main purposes of the present work is to establish which of the potentially infinite subevents are linguistically represented. In this sense, causative/anticausative alternation in Polish displays a logical inference rather than a semantic entailment. It is also noteworthy to see the contrast between Themelow stems and anticausatives in the following contexts:

- (16) a. #Telewizor się zepsuł, bo Piotr go zepsuł. TV refl spoil $_{pst.3sg.m}$  because Piotr it $_{ACC}$  spoil $_{pst.3sg.m}$  intended: 'The TV broke because Piotr broke it.'
  - b. Świeczka zgas- $\varnothing$ -ła, bo ją zgasiłem. Candle go.out-Th $_{low}$ -pst.3sg.f because it $_{ACC}$  put.out $_{pst.3sg.m}$  'The candle went out because I put it out.'

Although the judgements are delicate, there is a contrast between perfectly acceptable low Theme stem in (16b) and the slightly contradictory reflexive-marked anticausative in (16a). That seems to suggest that the entailment from the transitive variant to the low Theme unaccusative intransitive predicate is possible, but not to the anticausative. The contradictory nature of (16a), I submit, is due to an attempt to impose two different external arguments in the two respective clauses. The reason why the contrast is delicate is because the extralinguistic mechanism of logical inference intervenes.

In other words, my position is that Parsons' (1990) semantic representation of the intransitive variant of causative/inchoative alternation, which purportedly proves the presence of entailment, is in fact inadequate for Polish anticausatives. Parsonian representation of the transitive and intransitive is in (17a) and (17b) respectively:

- (17) a.  $(\exists e)$  [Agent(e,Max) &  $(\exists e')$  [Breaking (e') & Theme(e', the vase)] & CAUSE (e, e')]
  - b. (∃e) [Breaking (e) & Theme(e, the vase)]

In that kind of representation, the entailment follows. I will however try to substantiate Chierchia's (1989) intuition that with anticausatives the surface subject is not only interpreted as UNDERGOER, but also as a nonsentient stative CAUSER of its own Transition. In other words, I propose a more complicated semantic representation of anticausatives, as in (18):

(18)  $(\exists s)$  [Holder(s, the vase) &  $(\exists e)$  [Breaking(e) & Theme(e, the vase)] & CAUSE(s,e)]

In (18) I keep Parsonian thematic labels for the sake of clarity of exposition. Yet, it should be borne in mind that under the present assumptions the specific thematic roles are much more vague and defined only by occupying a particular syntactic position (i.e. Ramchandian Initiator, Undergoer, Resultee)<sup>6</sup>. In such a representation there is no semantic entailment from the transitive to the anticausative variant.

Again, I need to emphasize that the above considerations are crucially restricted to the anticausative alternation, and do not concern bare stem inchoatives in languages like Lillooet Salish or Amharic<sup>7</sup>. This is in the general vain of distinguishing between 'real unaccusatives' of the inchoative type (as in Salishan languages) and anticausatives of the Polish/Romance/Germanic type.

Thus, on any lexical approach to anticausatives, where the reflexive marker is an overt manifestation of a lexical operation, the verb should in principle enter syntax as a monovalent unaccusative predicate. This is so in Reinhart's (Reinhart (2002), Reinhart and Siloni (2004)) system (building on Chierchia (1989)), where the anticausative se casser ('break') is derived from a transitive verb by means of the operation referred to as Reduction. In this particular case, Reduction targets the external argument:

(19) a. 
$$V(\Theta_1, \Theta_2)$$
  
b. Reduction:  $R(V)(\Theta_n)$  (Reinhart and Siloni, 2004:(14))

The result is an unaccusative entry. In that sense, for all intents and purposes of syntax, the anticausative verb should be equated with what I refer to in the present work as degree achievement verbs (but prefer to switch from now on to a 'real unaccusative'). Yet, some of the diagnostics employed in the substantiation of the causative LSR do not seem to assume this strict encapsulation hypothesis. This is the case of the *by itself* adverbial test (cf. the discussion below). From a methodological point of view then, a consistent lexical treatment of the relevant diagnostics should:

- (i) either reject the strict encapsulation hypothesis and consistently treat all of the diagnostics relating to the presence of Causative LSR as valid; a natural consequence of such a position is adopting a syntactic account;
- (ii) or assume the strict encapsulation of modules, and consequently do not expect any syntactic traces of the complex event LSR; in that case the availability of the adverbial by itself becomes a problem, since it is not clear how the complex event lexical representation can transpire to syntax.

<sup>&</sup>lt;sup>6</sup>For the particular case under discussion, i.e. the stative subevent Parsonian label 'Holder' seems to be more appropriate than Ramchand's Initiator, as the argument is rather devoid of any instigational properties.

<sup>&</sup>lt;sup>7</sup>The prediction stemming from the analysis that I will present below is in fact that there will be a semantic entailment present in the relevant languages. Pending evidence to distinguish between logical inference and semantic entailment, I leave this issue for future research.

Therefore, my proposal will adopt the set of assumptions related to the former approach. Yet, I will try to show that the relevant diagnostics, when they occur, they clearly distinguish between simplex event inchoatives on the one hand, and complex event anticausatives on the other. To wit, there are contexts where 'real unaccusatives' behave differently from anticausatives. Consider the minimal pairs in (20):

- (20) a. zielenieć vs zielenić się ('get green(er)')
  - b. ucichnąć vs uciszyć się ('get silent')
  - c. zgęstnieć vs zagęścić się ('thicken')
  - d. tonąć vs topić się ('drown')
  - e. wychynąć vs wychylić się ('appear/stick out')

Initially, the existence of these doublets seems to be mysterious. The more so, if one endorses the hypothesis that a language does not tolerate synonyms. Native speakers have a hard time characterizing the exact semantic difference between the variant with high -i- Theme and the reflexive marker, and the one with low -ej- (as in (20ac)) or inchoative -n- (as in (20bde)) Theme and no reflexive marker. One response that I got was that the event 'lasts a bit longer' in the former case. Yet, on closer examination it turns out that there are contexts where one variant can be used, but the other cannot. Firstly, it seems that control into purpose clauses is sometimes allowed with the anticausative variants, but not coercible in the case of real unaccusatives<sup>8</sup>:

- (21) a. Marek utopił się [żeby wyłudzić pieniądze  $\operatorname{Marek}_{NOM}$  drown $_{pst.3sg.m}$  refl [so.that  $\operatorname{extort}_{inf}$  money $_{ACC}$  z ubezpieczenia]. from insurance] 'Marek drowned in order to extort the insurance money.'
  - b. ??Marek utonął [żeby wyłudzić pieniądze z  $Marek_{NOM}$  drown $_{pst.3sg.m}$  [so.that  $extort_{inf}$  money $_{ACC}$  from ubezpieczenia]. insurance]
- (22) a. Dzieci uciszyły się [żeby usłyszeć wołania children $_{NOM}$  get.quiet $_{pst.3pl.nonvir}$  refl [so.that hear $_{inf}$  callings rodziców]. parents $_{GEN}$ ]

<sup>&</sup>lt;sup>8</sup> Admittedly, there are cases of pragmatic control, as in Edwin Williams' example: *The grass is green to promote the photosynthesis*. I take the fact that there does exist a contrast between control with anticausatives and control with unaccusatives to indicate that the phenomenon is independent. From that perspective the marginal acceptability of (21b) and (22b) might be taken as involving pragmatic (event) control.

'The children got quiet in order to hear the parents' calling.'
b. ??Dzieci ucichły [żeby usłyszeć wołania children $_{NOM}$  get.quiet $_{pst.3pl.nonvir}$  [so.that hear $_{inf}$  callings rodziców].

parents $_{GEN}$ ]

There exists a possibility, however, that (22a) and (22b) are in fact coerced reflexive structures, as opposed to anticausatives, in which case the arguments of (21a) and (22a) are interpreted agentively. In that case, the above paradigm does not constitute an argument distinguishing between inchoatives and anticausatives.

Yet, there is another test differentiating the two types of predicates. The Polish equivalent of Italian da  $s\acute{e}$  phrase, argued by Chierchia to be only possible with unaccusatives, is sam/a/o (alone $_m/alone_f/alone_n$ ). As in the case of purpose clauses, it is much better with anticausatives than with real unaccusatives:

- - b. #Marta sama utonęła. Marta $_{NOM.f}$  alone $_f$  drown $_{pst.3sg.f}$  'Marta drowned alone.' '\*Marta drowned by herself.'
- (24) a. Trawa sama się zazieleniła.  $\operatorname{grass}_{NOM.f}$  alone $_f$  refl get. $\operatorname{green}_{pst.3sg.f}$  'The grass got green by itself.' b. ??Trawa sama zzieleniała.  $\operatorname{grass}_{NOM.f}$  alone $_f$  get. $\operatorname{green}_{pst.3sg.f}$  intended:'The grass got green by itself.'

(23b) can only be interpreted as meaning 'alone' - the reading that Chierchia wants to put aside since it seems to be indiscriminate with respect to the type of the predicate. (24b) can't even have that reading since the Subject is inanimate, and Polish 'alone' is restricted to animates. From Chierchia's examples, however, it does not seem that the contrast can be reproduced for Italian:

- (25) a. La porta si é aperta da sé. the door refl is opened by itself
  - b. La barca é affondata da sé. the boat is sunk by itself

(Chierchia, 1989:(42ab))

Note, however, that Italian affondare ('sink') is not really comparable to Polish  $tonq\acute{c}$  ('sink') since the former is ambiguous between a transitive and inchoative version. Thus, my hunch is that the possibility of having  $da s\acute{e}$  in (25b) is really related to the transitive entry for affondare. In that sense the comparison of the relevant contrast should involve a real Italian unaccusative like arrivare. And in fact (26) seems to be considerably degraded:

(26) ??La lettera é arrivata da sé.

Moreover, since the presence of da  $s\acute{e}$  or sam/a/o phrases is taken to reflect the accessibility of 'cause argument', it follows also for our purposes that the relevant event is complex<sup>9</sup>. Yet, in a lexicalist framework, where the 'suppression' of the cause argument is done presyntactically, it is not clear how adverbial attachment - clearly a syntactic matter - can have access to this 'suppressed' argument. Thus, the unified account of all unaccusatives in terms of Reduction in the lexicon, does not explain the Italian contrast between (25) and (26).

#### English inchoatives are covert anticausatives

At this point I would like to make an aside on English alternating 'inchoatives'. When discussing verbs participating in the causative-inchoative alternation (illustrated in (27)) in English, Ramchand considers a lexical entry for these verbs represented in (28).

- (27) a. The stick broke.
  - b. John broke the stick.
- (28)  $break: [(\nu), V, R]$

She observes, however, that this assumption would miss the generalization that all [V,R] and [V] verbs seem to allow transitivization by the addition of an external causer. Therefore, she proposes that English has an unpronounced lexical item with default causational semantics which can be associated under  $\nu$ , and which triggers incorporation of the V into it.

There seems, however, to be at least some evidence to the effect that  $\nu$ -shell is present with some alternating verbs even in their intransitive variants in English. Firstly, a contrast similar to Italian (25) and (26) is present in English (29) and (30) as well:

- (29) #Mark died / arrived / fainted by himself.
- (30) The cup broke / The ice melted / His condition worsened by itself.

<sup>&</sup>lt;sup>9</sup>This point is made in (Reinhart, 2002:26): "when the concept includes a cause argument, as with *break*, but not *glow*, we can refer to it, even if we selected a lexical representation which does not realize it." As indicated above, this position seems to be incompatible with the strict encapsulation of modules tenet.

- (29) shows clear preference for the irrelevant 'alone' reading, whereas in (30) the most salient reading is the relevant 'without assistance' (Peter Svenonius, p.c.). In fact, it seems to be the only reading for (30), which might indicate again animacy requirement of the English 'alone'. Thus, it seems that the twofold analogy to Polish should be:
- (i) verbs in (29) are comparable to Polish 'real unaccusatives', i.e. stems with Theme<sub>low</sub>;
- (ii) verbs in (30) are comparable to Polish 'anticausatives', i.e. stems with Theme $_{high}$ .

To the extent that the first part of the analogy is expected, the second part seems to be a little unorthodox, as standardly these verbs are taken as unaccusatives. Moreover, there does not seem to be any special anticausative morphology present in English (30), e.g. no reflexive clitic is found. In connection with the reflexive marking, it seems crucial to observe that English does not have overt (so-called 'lexical') reflexive marking<sup>10</sup>:

(31) John washed.

The 'unaccusative' analysis of (31) with John as an UNDERGOER only is invalidated by the semantics. In (31) John is clearly doing something, apart from undergoing. The lack of an overt reflexive opens the possibility that also in other verbs in English we might be dealing with covert reflexivity.

A further piece of evidence for the presence of the light verb layer in English verbs of the type in (30) involves suppletive deadjectival verbs. It seems to be true for many languages that adjectives which form suppletive comparative and superlative, use the comparative stem when they serve as basis for verbal derivation<sup>11</sup>. Polish shows transparently, however, that this is only true of causative (transitive) variants. With Theme<sub>low</sub> inchoatives, the positive stem is used. This is shown below:

- (32) a. mal-y ('small') mniejsz-y ('smaller') b. dobr-y ('good') - lepsz-y ('better')
- (33) a.  $mal\text{-}e\acute{c}$  ('get smaller')  $z\text{-}mniejsz\text{-}y\acute{c}$  ('make smaller') b.  $dobrz\text{-}e\acute{c}$  ('get better')  $u\text{-}lepsz\text{-}y\acute{c}$  ('make better')

It should also be pinpointed that there exist anticausative variants of the transitive verbs in (33), which display the reflexive marking, and these are also based on a comparative stem, as shown in (34):

(34) z-mniejsz-yć się ('get smaller'), po-lepsz-yć się ('get better')

<sup>&</sup>lt;sup>10</sup>And note also that no reflexive marking is visible in English Middles. In a sense then, it seems that English simply lacks an item that would perform the function of a reflexive clitic in Slavic or Romance languages.

<sup>&</sup>lt;sup>11</sup>In Bobaljik (2006) this is taken as a universal fact and derived structurally.

Now, in English the comparative stem is employed in both transitive, as well as intransitive variants of alternating verbs, as shown in (36):

- (35) bad worse
- (36) a. This worsened the situation.
  - b. The situation worsened/\*baddened.

That seems to suggest that English intransitive worsen is really comparable to Polish anticausative  $zmniejszy\acute{c}$  się ('get smaller') rather than  $male\acute{c}$  ('get smaller').

Furthermore, a lot of other Germanic or Romance languages behave like English in the sense that both transitive and intransitive variants of alternating verbs display comparative suppletive stems. Since they differ from English, however, in possessing a reflexive/anticausative marker, we expect all of the intransitive variants to necessarily employ the morphology in question. This seems partly borne out by the facts, as I illustrate below for Norwegian ((37)), Swedish ((38)) and French ((39)).

- (37) a. for-bedre \*(seg) ('get better/improve', cf. bedre ('better'))
  b. for-verre \*(seg) ('get worse/worsen', cf. verre ('worse'))
- (38) a. för-bättra \*(sig) ('get better/improve', cf. bättre ('better')) b. för-sämra \*(sig) ('get worse/worsen', cf. sämre ('worse'))
- (39) a. \*(s') ameliorer ('get better/improve', cf. meileur ('better'))

The reflexive morphology is necessary in order to express the inchoative variant. Admittedly, there are cases where a verb displaying suppletive comparative morphology does not require the reflexive marker in the intransitive variant, although the language in question actually possesses such a lexical item, e.g. Italian migliorare ('get better'), peggiorare ('get worse'). Since, however, Italian possess also other labile verbs alternating between the transitive and intransitive variants without any mediating morphology, e.g. affondare ('sink' $_{tr/intr}$ ), I leave these cases for future research and assume that the correlation: suppletive morphology  $\rightarrow$  anticausative structure holds.

In view of the suppletive evidence presented above, let us then hypothesize that English suppletive stem intransitives are in fact covert anticausatives. Of course, this fact by itself does not mean anything for the verbs like break. Yet, when we combine it with another fact, discussed in Haspelmath (1993), i.e. that BREAK is a concept that is cross-linguistically most commonly anticausativized, it seems that the covert anticausative analysis for English alternating verbs like break gains some initial plausibility. Moreover, it is further substantiated by the adverbial contrast presented in (29) and (30). The covert reflexive hypothesis for English has some extensions in other

domains as well. For instance, the observation by Michal Starke that intransitive stative unergative verbs seem to be particularly rare is *prima facie* invalidated by the existence of psych-verbs of the worry type.

(40) John worries.

It is interesting, however, that these verbs bear the reflexive morphology in other languages. I illustrate with Polish:

(41) Janek martwi się/ dziwi się. Janek worry refl/ amaze refl 'Janek worries/ is amazed.'

Since I will argue in section 3.1 that every reflexive-marked verb involves identification of Subjects of two subevents<sup>12</sup>, (41) is in a sense transitive, and hence ceases to be a counterexample to a robust generalization. The covert anticausative analysis of English causative-inchoative verbs has the advantage that it dispenses with unpronounced items like the null  $\nu$ , although of course the lack of overt reflexive marking needs to be accounted for. I submit that under the present assumptions, the stem in English can spell out the functional projection relevant for the reflexive clitic in other languages. In other words, the English stem has the lexical specification in which the reflexive projection (let us call it reflP) figures as an optional element.

(42) 
$$break: [R^0, V^0, \nu^0, (refl^0)]$$

This comes as no surprise in fact, in view of extreme flexibility of English stems, which can express many different feature combinations not mediated by any affixation, e.g. the telicity of English *break* can be overriden by a higher level aspectual feature, i.e. iterative aspect (most probably the equivalent of Polish Secondary imperfective - cf. section 2.2.8), as shown in (43):

- (43) a. John broke the chair in three seconds.
  - b. John broke the chair continuously for an hour until it was in one million pieces.

The only limitations on the flexibility are due to the architecture of  $f_{seq}$  combined with the principles of lavish insertion specified in section 1.2, i.e. the fact that lavish insertion applies to contiguous heads only. That means that the stem cannot lexicalize some optional feature higher in  $f_{seq}$  without necessarily lexicalizing the optional feature lower in  $f_{seq}$ .

Thus, it seems that English is exceptionally opaque with respect to the chunk of structure that a particular stem lexicalizes. By the same reasoning, how-

<sup>&</sup>lt;sup>12</sup>Excluding Middles and Impersonals, for the time being.

ever, the empirical scope of the possibility of 'covert anticausative' analysis in English is unfortunately not clear. This is because in many intransitive predicates the stem could just as well lexicalize just the chunk of structure equivalent to Polish Theme $_{low}$  stems. In section 2.2 I argued that this is exactly where Polish behaves morphologically transparently and can be used as a probe for which projections a particular lexical item identifies.

Let me now recapitulate the results of the above discussion. Having delineated the empirical scope of investigations of this chapter, I have rejected the assumption concerning the presence of the semantic entailment between the transitive and the anticausative variant of causative/inchoative alternation. Consequently, none of the variants can be derived from the other: neither the transitive derived from the anticausative (as e.g. in Pesetsky (1995)), nor the anticausative derived from the causative (as e.g. in Reinhart (2002)). Moreover, I have shown that some of the diagnostics employed by some lexicalist researchers in order to prove the complex event LSR are in fact incompatible with the Lexicalist Hypothesis. In turn, a syntactic one-module approach to causative/inchoative alternation seems to be the null hypothesis. I have also proposed a semantic representation of anticausatives as complex events, where the sole argument is not only an Undergoer of the change-of-state subevent, but also a non-sentient stative Initiator of the higher subevent. This hypothesis, I believe, solves the long-standing problem in the literature. To wit, many lexical accounts share an intuition that anticausatives are in fact complex events. Yet, this intuition is very hard to prove due to a very specific structure that anticausatives instantiate. It is my conviction that most tests that are used in the literature to show a complex causative structure/LSR are contigent either on the agentivity of the higher subevent, or on the distinctness of the participants in the two events, or on both of these factors. Since I proposed that the higher subevent is in fact a State, and since with reflexive-marked verbs one and the same argument is a participant in both of the relevant events, there is not much left to prove the point. Therefore, it is precisely the contrast between the 'real unaccusatives' and the anticausatives in Polish that enables one to see the complex nature of the latter set against the background of the simplex nature of the former. Thus, I have repeatedly stressed that a unified treatment of all intransitive variants of causative/inchoative verbs is untenable. In the next section I will try to show that these two types of structures systematically correlate with specific conjugation class markers, i.e. Themes. Finally, I have advanced an English-specific proposal to the effect that at least some of the English verbs of the break type are in its intransitive variants comparable to Polish reflexive-marked anticausatives, and hence are not unaccusatives in the traditional sense.

#### 3.1.2 The interaction between Themes and the reflexive marker

Turning now to interaction with the types of Themes, note that from the perspective of any approach which equates anticausatives with unaccusatives, it is expected that anticausatives should only involve low Themes since no  $\nu$  layer should be present. This is because in accordance with UTAH (Baker, 1988), the argument of unaccusative verbs is merged VP-internally. Yet, this prediction seems to be totally on the wrong track: low Theme stems (almost) never take a reflexive marker, as shown in (44). On the other hand, most of the verbs involving a reflexive marker are high Theme stems (cf. (45))<sup>13</sup>.

- (44) z-marz-ną-ć (\*się)/ o-głuch-ną-ć (\*się)/ wy-piękn-ie-ć (\*się)/ pref-freeze-n-inf (refl)/ pref-deaf-n-inf (refl)/ pref-beaut-ej-inf (refl)/ zielen-ie-ć (\*się) green-ej-inf (refl)
- (45) a. **caus-inch**: budz-i-ć (się) ('wake', i/y-stem), krusz-y-ć (się) ('crumble', i/y-stem), gniew-a-ć (się) ('annoy/be annoyed', ajstem), wikł-a-ć (się) ('interweave/ complicate/get complicated', aj-stem), top-i-ć (się) ('melt', i/y-stem)
  - b. **refl**:  $czes-a-\acute{c}$  (się) ('comb (oneself)', a-stem),  $ubier-a-\acute{c}$  (się) ('dress (oneself')', aj-stem),  $poloż-y-\acute{c}$  (się) ('put/lie', i/y-stem)
  - c. **inherent**: chełp-i-ć się ('boast', i/y-stem), chmurz-y-ć się ('get cloudy', i/y-stem), jąk-a-ć się ('stutter', aj-stem), wzdryg-a-ć się ('jerk', aj-stem)
  - d. **pref-induced**: roz-gad-a- $\acute{c}$  się ('go into talking', aj-stem), za-koch-a- $\acute{c}$  sie ('fall in love', aj-stem), do-licz-y- $\acute{c}$  sie ('finally manage to count sth', i/y-stem), na-patrz-y- $\acute{c}$  sie ('watch sth into satiation', i/y-stem)

If my conclusion from chapter 2 to the effect that the high Themes correlate with (a certain level of) non-unaccusativity, and if intransitive variants of anticausatives are claimed to merge their arguments VP-internaly, then we seem to be running into a problem. On the other hand, one might argue that the inchoative variant of the verbs participating in causative-inchoative alternation, as well as reflexives are derived in syntax. This is in essence the pronominal approach pursued by many researchers starting from Kayne (1975). The reflexive clitic e.g. is taken to be generated in the object position and climb upwards, binding an empty category in its trace position. Then, it will follow that since transitive verbs are always involved, low Theme stems, being always monovalent, cannot participate in the relevant construc-

 $<sup>^{13}</sup>$ In fact, in a pilot study that I conducted concerning causative/inchoative alternation involving 324 verbs, 63% of them turned out to be high Theme stems. The rest were stems, the status of which was ambiguous (like -owa-stems), and only one verb with low verbalizer -ej-, i.e. starzeć się ('get old').

tions. This approach, however, has nothing to offer with respect to Reflexiva Tantum (henceforth, RT), which never seem to be transitive. Similarly, certain verbs from which prefix-induced reflexive constructions are derived, also never take any object. E.g. patrzeć ('look') in (45d) can optionally take a PP object, but never a bare DP. From this point of view, the fact that RT and prefixed-induced reflexive verbs cannot be low Theme stems is rather unexpected. Therefore, if a unified account for all the four cases in (45) is to be proposed, the correlation with the type of Themes must be treated as non-trivial.

Finally, if at least some of the verbs with the reflexive marker (most often the ones that involve an argument interpreted nonvolitionally) are taken to be unaccusatives, it is unexpected that they can occur in Impersonal Passive construction in -NO/TO, as illustrated in (46):

- (46) a. Potk-nię-to się na schodach. anticausative stumble-sem-NO refl at stairs 'Someone stumbled on the stairs.'
  - b. Zmartw-i-ono się rozwojem wypadków. psych-verb worry-i-NO refl development incidents 'Someone got worried by the development of the situation.'
  - c. Uśmiech-nię-to się do niego. RT smile-sem-NO refl to him 'Someone smiled to him.'
  - d. Do-patrz-Ø-ono się błędów. pref-induced pref-look-i-NO refl mistakes 'Someone noticed mistakes.'

If Passive is usually taken to apply to verbs with external arguments only (cf. e.g. Perlmutter and Postal (1977), Baker (1988), and Baker et al. (1989), but also the discussion in section 1.6), then under the unaccusative analysis of anticausatives (46) is unexpected. Note that all of the Themes involved in (46) are high (i.e. semelfactive -n- in (46ac) and processual -i- in (46bd)). This fact is one of the main arguments provided in the literature in favour of the non-passive nature of -NO/TO, one of the classical examples of which is Lavine (2000) reviewed in section 3.2.2.

In fact, it seems that the presence of the reflexive marker 'helps' the sentence to become grammatical in certain cases. For instance, *uciec* ('escape') is a verb whose conjugation marker is of a hard to establish status. This is due to certain irregularities in the paradigm. That is why it is only marginal in the Impersonal construction (cf. (47a)). Yet, there is an inherent reflexive verb *uciec się* ('resort'), which is perfect in the Impersonal Passive:

- (47) a. ??Ucieknię-to z więzienia. escape-NO from prison
  - 'Someone escaped from prison.'
  - b. Ucieknię-to się do rozwiązań ekstremalnych. escape-NO refl to solutions extreme 'Someone resorted to extreme measures.'

Again, on the (quite unpopular in the Polish literature, cf. section 3.2.2 for references) assumption that -NO/TO is a real Passive, the facts are as expected, i.e. only high Theme verbs (i.e. verbs potentially possessing an external argument ) can undergo Passive formation, whatever the reason for this restriction might be.

The conclusion flowing from the evidence reviewed above seems to be as in (48):

- (48) Only high Theme (non-unaccusative) stems are able to take a reflexive marker of reflexive, anticausative, inherent, prefixinduced persuasion. 14,15
- (48), in turn, suggests that reflexive verbs (of the relevant types) are complex macroevents involving at least two subevents:  $\nu$ P and VP. The question arises why this state of affairs should hold. I would like to argue that this is due to the semantics of the reflexive marker, the surface manifestation of which is usually taken as its anaphoricity. The clearest case of anaphoricity involves reflexives (for examples of which cf. (45b)), where in a certain sense the external argument of the reflexive predicate (Agent) is coreferential with its internal argument (Patient/Theme). Below, I will extend this particular point to all the relevant uses of the reflexive marker.

#### Reflexive marking involves two $\Theta$ -roles

The anaphoric status of the reflexive clitic is not taken for granted in the literature, however. Abstracting away from the very label 'anaphor', which is certainly loaded within generative grammar, I need to show that the presence of the reflexive clitic always necessarily correlates with two  $\Theta$ -roles. Let us first consider the purported counterexamples.

For instance, Alsina (1996) argues that the reflexive clitic is not an anaphor since it can occur in nominalized infinitives in Catalan:

 $<sup>^{15}</sup>$ This formulation will be in fact revised below, allowing for some very restricted cases of Theme<sub>low</sub> stems with the prefix-induced reflexive, which are essentially confirming the analysis

<sup>&</sup>lt;sup>15</sup>The relevant restriction concerns also Middles, but not Impersonals. The reader is referred to chapter 5.

#### (49) Catalan

a. El satir observava amagat el despullar-se sorollos amb the satyr observed hidden the undress $_{inf}$ -refl noisy with que es divertien les nimfes which refl amused the nymphs 'Hidden, the satyr was observing the noisy undressing with which the nymphs amused themselves.'

Given the decompositional approach to morphology, however, it is not clear that the nominalized infinitival could not include an embedded antecedent of the pro/PRO type. In fact, I will argue in section 4.3 that one of the instantiations of the Polish nominalization in -NIE/CIE, which also seems to be able to occur with the reflexive marker, can embed a projection introducing pro as an external argument.

One confirmation of that hypothesis is the fact that the missing Subject of the nominalization with the reflexive marker seems to be restricted in interpretation to human arguments.

- (50) a. Bardzo mnie denerwuje to ciągłe przewraca-nie się. very me $_{ACC}$  annoys this constant overturn-nom refl 'Someone's/my constant falling gets on my nerves.'
  - Kręce-nie się w kółko nie polepsza sytuacji.
     spin-nom refl in circle neg improve situation
     'Someone's going in circles doesn't improve the situation.'
  - c. Cofa-nie się ma zawsze skutki uboczne. withdraw-nom refl has always effects sideways 'Someone's withdrawing always has side effects.'

This is in spite of the fact that the relevant predicates can be used with both animate and inanimate Subjects:

- (51) a. Janek/stół przewraca się. Janek/table overturn $_{pres.3sg}$  refl 'Janek/the table is falling.'
  - Janek/interes się kręci.
     Janek/business refl spin<sub>pres.3sg</sub>
     'Janek is fidgeting/ The business is thriving.'
  - c. Janek/choroba cofnęła się. Janek/disease withdraw $_{pst.3sg.f}$  refl 'Janek/the disease has withdrawn.'

Furthermore, if the human interpretation of the Subject is on the right track, then the prediction arises to the effect that reflexive-marked verbs which can only take inanimate Subjects should be disallowed in nominalizations. It seems the prediction is confirmed:

- (52) a. \*Aktualizowa-nie **się** zwróciło moją uwagę. update-nom refl turn $_{pst.3sg.n}$  my attention intended: 'Becoming updated drew my attention.'
  - b. \*Dłuże-nie **się** nigdy nie jest przyjemne. long-nom refl never neg is pleasant intended: 'Being boring is never pleasant.'
  - c. \*Z niecierpliwością czekam na goje-nie **się**. with impatience wait<sub>pres.1sg</sub> for heal-nom refl intended: 'I am looking forward to healing.'

The inanimate external argument restriction for the relevant predicates is illustrated in (53):

- a. Dane/\*Ludzie aktualizują się.  $data/*people update_{pres.3pl}$  refl 'The data/\*people are updating.'
- b. Wykład/\*Maria się dłuży. lecture/\*Marie refl lengthen<sub>pres.3sg</sub> 'The lecture/\*Maria is getting boring.'
- c. Rany/\*Ludzie goją się. wounds/\*people heal<sub>pres.3pl</sub> refl 'The wounds/\*people are healing.'

I haven't been able to check the relevant facts for Catalan, but it seems that Spanish nominalized infinitives can also occur with the reflexive clitic, and the interpretation of the missing argument is necessarily animate (Luisa Marti, p.c.). Thus, (53) cannot be used when it is things that collide:

(53) \*El estrellar-se es algo que me asusta. Spanish the masc collide-refl is something that me scares intended: 'The colliding of things is something that scares me.'

Although I will argue in section 4.3 that the restriction in question stems from the level in functional sequence where the nominalization takes place, for the time being this is immaterial, since human interpretation will stem from the feature specification of pro/PRO. Thus, the conclusion seems to be that there is no reason to undermine the 'anaphoricity' of the reflexive clitic. Although I will not implement it in terms of 'anaphoricity', the conclusion is still something to bear in mind.

#### (Non)-argumental status of the reflexive marker

Let me now turn to the controversy between pronominal vs valency reducing accounts of the reflexive clitic. It has become clear by now that the pronominal approach to reflexive marker is untenable. This is due to the fact that in many respects sentences with reflexive clitics pattern with intransitive verbs, and differently from sentences with full-fledged anaphors of

French

the English oneself type, Italian se stesso or Polish siebie. For instance, Kayne (1975) observes that reflexive verbs do not trigger dativization of the Causee in causative constructions. In this respect the embedded (reflexive) verb seems to pattern with an intransitive verb:

- (54) a. Je ferai laver Max á Paul.

  I will.make wash Max to Paul
  'I will make Paul wash Max.'
  - Je ferai courir Paul.
     I will.make run Paul
     'I will make Paul run.'
  - c. Je ferai se laver Paul. I will.make refl wash Paul 'I will make Paul wash himself.'

Alsina (1996) also observes that the full-fledged reflexive allows more readings than the clitic does.

- (55) Mary defends herself better than Gertrude.
- (56) a. Mary<sub>i</sub> defends herself<sub>i</sub> better than  $Gertrude_i$  defends herself<sub>i</sub>
  - b. Mary<sub>i</sub> defends herself<sub>i</sub> better than Gertrude<sub>i</sub> defends her<sub>i</sub>
  - c. Mary $_i$  defends herself $_i$  better than she $_i$  defends Gertrude $_i$
- (57) La Maria es defensa millor que la Gertrudis
- (58) a. Mary<sub>i</sub> defends herself<sub>i</sub> better than Gertrude<sub>j</sub> defends herself<sub>j</sub>
  - b. \*Mary<sub>i</sub> defends herself<sub>i</sub> better than  $Gertrude_j$  defends  $her_i$
  - c. \*Mary<sub>i</sub> defends herself<sub>i</sub> better than she<sub>i</sub> defends Gertrude<sub>i</sub>

Thus, for the Spanish reflexive clitic in (58), only the strict reading is possible. For Alsina, this means that the functional structure is copied from the non-elliptical clause except for the information overtly present in the elliptical clause. Due to a-structure binding, only one function (i.e. Subject) is licensed, which rules out the interpretation in (58c). Since two bound arguments cannot have different referential indices, the reading in (58b) is also out.

Furthermore, predicative adjectives in Small Clauses as complements of transitive verbs show Case agreement with the object (i.e. ACC) in Polish, whereas with reflexive verbs they Case-agree with the Subject<sup>16</sup>:

(59) a. Maria umyła Ewę całą. Polish Maria wash $_{pst.3sg.f}$  Ewa $_{ACC}$  whole $_{ACC}$  'Maria washed Ewa all over.'

<sup>&</sup>lt;sup>16</sup>Thanks to Lucie Medova for drawing my attention to these facts.

b. Maria umyła się cała. Maria wash $_{pst.3sg.f}$  refl whole $_{NOM}$  'Maria washed herself all over.'

These and similar facts have for a long time constituted the main argument against the syntactic pronominal treatment, and in favor of a lexical valency-reducing marker account of the reflexive clitic. The challenge that the lexical accounts must face, however, is the fact that the reflexive clitic is able to be coindexed with the argument of another predicate. This is the case for ECM constructions (as shown in Marantz (1984)) (cf. (60)), as well as coindexing out of so-called *Faire ...par* causative in French:

- (60) a. Jean se considére intelligent. French 'Jean considers himself intelligent.'
  - b. Jean s'est fait embrassér par Marie. 'Jean had Marie kiss him.'

Since on any lexicalist theory of reflexive marking valency-reducing operation occurs in the lexicon, it is not clear how this operation should apply to the arguments of two different predicates: the argument of the causative/ECM verb and the argument of its complement.

In view of these facts, certain lexicalists postulate parametrizing reflexivization with respect to whether it is handled by the lexicon or by the syntax (cf. e.g. Reinhart and Siloni (2004), Marelj (2004)). To take an example, since Hebrew does not allow reflexivization of non-coarguments in ECM construction, the valency reduction operation is taken to apply in the lexicon. Conversely, since French does allow it, the relevant operation is claimed to apply in the syntactic component<sup>17</sup>. It seems to me, however, that the crosslinguistic similarities are too striking to assume such a different treatment of the phenomenon. Moreover, there are some empirical problems involved in the parametrization hypothesis.

To wit, Marelj (2004) follows Siloni (2003) in arguing that the formation of reflexive nominalizations in fact substantiates the split application hypothesis. The reasoning goes as follows. Because French allows Reflexivization in ECM contexts, it must be a syntax language. If Reflexivization is a syntactic operation, one expects it not to be able to feed lexicon operations, e.g. nominalizing. Therefore, the lack of reflexive nominalizations in French follows. Hebrew, on the other hand, is predicted to allow reflexive nominalizations, as one lexical operation (i.e. Reflexivization) can feed another one

<sup>&</sup>lt;sup>17</sup>The parametrization option is taken to hold of Reflexivization only, as opposed to Expletivization (valency reduction in inchoatives/anticausative). The latter applies in the lexicon exclusively, since the approach assumes that the basic variant is the transitive one, and it is impossible to subtract an argument in syntax.

(i.e. nominalization)<sup>18</sup>:

- (61) a. hitraxcut self-washing
  - b. histarkut self-combing

Marelj (2004:34)

The problem is Polish, which, although it allows Reflexivization of non-coarguments, and in this sense comes out as a syntax language, does allow also reflexive nominalizations. These two facts are illustrated in (62) and (63) respectively:

- (62) a. Marek uważa się za inteligentnego. Marek consider $_{pres.3sg}$  refl for intelligent 'Marek considers himself intelligent.'
- (63) myc-ie się/ czesa-nie się wash-nom refl comb-nom refl 'washing/ combing oneself'

If the nominalization is taken as a lexical operation, it is not clear how it can be fed by syntactic Reflexivization. If, in turn, the syntactic approach to Reflexivization is relevant for at least some languages (like French and Polish), and the parametrization hypothesis faces problems, the null hypothesis is a syntactic approach to Reflexivization in *all* languages.

Summarizing the discussion so far, there is clear evidence that the syntactic account of the reflexive clitic that grants it an argumental status cannot be right. Yet, the lexical valency-reduction marker approach also faces problems, and hence must be rejected. Instead, what seems to be called for is a unified syntactic treatment of all the relevant uses of the reflexive marker, incorporating the findings concerning intransitivity of reflexive verbs, but at the same time accounting for why certain languages (e.g. Hebrew and English) do not allow coindexing of non-coarguments. I will leave the latter issue for future research.

One more remark is in order. Generally speaking, the approaches which postulate transitive structure for the reflexive-marked verbs usually evoke the type of evidence that tells us that the external argument is present in the sentences in question, but not what is the external argument. To take an example, Pesetsky (1995), referring to Kayne's idea, take the reflexive clitic to be an external argument that is assigned ACC Case. The full DP in (64) is claimed to be the underlying object that moves to Spec,IP and binds the

<sup>&</sup>lt;sup>18</sup>Note that this conception of the lexicon necessarily involves ordering operations, which in effect yields a reproduced syntactic derivation.

reflexive from this position.

(64) Marie<sub>i</sub> [ $_{VP}$  se<sub>i</sub> voit t<sub>i</sub>]

A consequence of this analysis is that the reflexive verbs are incompatible with clauses whose main verb lacks an external argument (cf. also Rizzi (1986)). I illustrate for passive and raising verbs in (65) and (66) respectively:

- (65) a. \*Gianni si è stato affidato.
  intended: 'Gianni was entrusted to himself.'
  - b. \*Gianni non si sembra fare il suo dovere.
    intended: 'Gianni does not seem to himself to do his duty.'

Pesetsky (1995:104)

Since, by hypothesis, passive and raising verbs lack an external argument, it follows for Pesetsky that the reflexive clitic is incompatible with these contexts, as it is assigned an external  $\Theta$ -role. Although this might be an argument in favor the presence of the external argument, it does not necessarily follow that the clitic is the argument.

### 3.1.3 An analysis

Considering the aforementioned problems with the pronominal approach to the reflexive clitic. I would like to follow Manzini and Savoia (2004) in assuming a base-generation analysis of the clitic<sup>19</sup>. Thus, let us suppose that the clitic has a dedicated functional projection in Manzini and Savoja's clitic hierarchy, call it reflP<sup>20</sup>. Manzini and Savoia (2004) operate in terms of aspectual features Originator and Measure. The claim is that the clitic is merged in Or and the DP acts as an attractor of both thematic features Orand Meas. The lexical subject is merged in a position c-commanding the position of the clitic and can attract one of the aspectual features: if it attracts Meas, the result is a passive. The person agreement between the clitic and the Subject is taken to reflect the fact that Meas passes through Spec, OrP (with the reflexive clitic in its head). If, on the other hand, the lexical DP attracts Or and Meas, the result is a reflexive/anticausative verb. I will modify this analysis slightly. Firstly, in view of the fine-grained event-decomposition assumed here (i.e. the tripartite event decomposition), it seems to me that the reflexive clitic cannot be associated with one or two particular thematic features, simply because one would run short of the possibilities of combinations needed to represent all the existing constructions. Secondly, Manzini

<sup>&</sup>lt;sup>19</sup>Base-generation account has been proposed earlier by Sportiche (1996). Yet, considering the assumptions made in this section, Manzini and Savoia (2004) seems to be the closest predecessor.

<sup>&</sup>lt;sup>20</sup>I do not intend here to enter the discussion concerning the exact position of the reflexive clitic w.r.t. other clitics.

and Savoia claim that the difference between reflexives and anticausatives is pragmatic/interpretive, rather than derivational. This seems not to be substantiated empirically, since, as I will show below, there are clear syntactic differences between the two (e.g. with respect to ne-cliticization, control into purpose clauses, the range of possible subjects, etc.) In fact, it is interesting that M&S represent the other extreme of the approach to unaccusativity, as compared with Chierchia (1989). The latter argues for the unaccusative status of all the monovalent structures with a Theme-interpreted argument, whereas M&S choose to extend their analysis of anticausatives to all unaccusatives (i.e. including predicates like venire ('come')), which essentially amounts to postulating an external argument (their Originator for all unaccusatives. One of the purposes of this section is to argue that a unified analysis of the monovalent structures with a Theme argument (i.e. Polish Theme<sub>low</sub> stems and anticausatives) is untenable.

Although M&S's account is based on the assumption that I share as well, i.e. that  $\Theta$ -roles are features, and the one-to-one match between arguments and  $\Theta$ -roles is not a necessity in the minimalist framework, the particular technical implementation of this assumption will be different here. M&S, adopting the framework of Chomsky (1995b), take the  $\Theta$ -features to be able to move abstractly into the domain of the base-generated clitic. As I assume the existence of a universal fine-grained thematic functional sequence, I will instead take the particular functional heads to come with the particular  $\Theta$ -features that need to be checked by the movement of the argument into a Specifier of a given functional projection. The question that arises is what is then the function of the reflexive clitic generated in refl<sup>0</sup>? I will hypothesize that the semantics of reflP is licensing of the identification of two Θ-roles in one argument. Specifically, refl<sup>0</sup> scans its immediate search space to find the closest Goal with nominal features  $\alpha$  (see below for more details on  $\alpha$ ), and this DP will be allowed to bear two  $\Theta$ -roles: an internal and an external one. The identification of the two  $\Theta$ -features is orthogonal to those features being already checked or not yet checked by movement of the argument to a thematic projection. Thus, if a DP has already checked both its  $\Theta$ -features, these will be the two roles identified. If, however, a DP which has acquired only one  $\Theta$ -role is the first available Goal, the checked feature will be identified with an unchecked one, regardless of the subsequent moving/checking the other  $\Theta$ -role feature. In this sense, refl<sup>0</sup> is blind to the type of the thematic role.

The relevant question is what is the exact place of reflP in  $f_{seq}$ . Let us assume, for the sake of the argument, that it is above  $\nu$ P, but below VoiceP (cf. section 1.5 for the split into Cause and Voice à la Pylkkänen (2002)). In the present work I prefer to substitute the label VoiceP (originally from Kratzer (1996)) with initiatorP (cf. also section 1.5) - the highest thematic

position for the external argument in the hierarchy of light verbs. This is due to the fact that the traditional label Voice immediately recalls the active-passive opposition. As I will argue in section 4.3 that the notion 'passive' should be reduced to aborting the verbal sequence at a relatively low level, and hence has nothing to do with Voice, the latter label seems to be misleading. The only purpose of the relevant projection (i.e. initP) is to attract external arguments which check the initiator's feature there. I also do not wish to call it AgentP, since the arguments being hosted there can be of different thematic persuasions. This is because their relation to the embedded event is very loose<sup>21</sup>.

(66) 
$$\left[\operatorname{initP} \operatorname{DP} \left[\operatorname{init'} \left[\operatorname{reflP} \left[\operatorname{refl'} sie \left[v_{P/VP} - i/y/aj - \operatorname{DP}\right]\right]\right]\right]\right]$$

(66) incorporates the finding arrived at above, namely the fact that only high Theme stems are allowed to take a reflexive marker<sup>22</sup>. Thus, in what follows I will try to go through all the possible derivations involving a reflexive clitic, assuming the low thematic domain proposed in this work and repeated in (67):

(67) 
$$\left[\text{initP } \left[\nu P \left[VP_{Become} \left[RP \right]\right]\right]\right]$$

#### Anticausatives

Let us start with the derivation for anticausatives. I would like to exploit the insight recurrent in the literature concerning the fact that the Subject of anticausatives in a sense seems to behave syntactically and semantically as both Causer and Patient. Thus, e.g. Chierchia argues that in the boat sank<sup>23</sup> "[...] some property of the boat (or some state the boat is in) causes it to go down. That is with unaccusatives (read: anticausatives - P.J.) the causing factor must be understood not as an action but statively." The same intuition is captured in Szymańska's (ib.) system of featural decomposition (adopted from Rozwadowska (1992)), where she argues that the Subject of inchoatives (anticausatives) is specified as [+cause, +affected, -sentient].

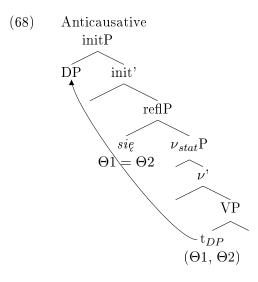
Transposing this insight into a derivational framework, let me propose that anticausative derivation involves a stative flavor of  $\nu P$  - the first of the light verbs introducing the causing subevent, and the sole argument is merged

 $<sup>^{21}</sup>$ In a certain sense my *initiator* is comparable to Ramchand's *initiator*. The relevant sense concerns the very loose or unspecified involvement of the participant in bringing about the event. Yet, my initiator is introduced at a level much higher than Ramchand's  $\nu$  - a fact which stems from much more fine-grained decomposition.

<sup>&</sup>lt;sup>22</sup>Exceptions confirming the analysis will be discussed below.

<sup>&</sup>lt;sup>23</sup>This statement requires qualification: for Chierchia *any* verb whose sole argument is interpreted as Patient is unaccusative. Thus, his formulation concerning stative causation applies equally to 'real unaccusatives' and anticausatives. I would like to modify this claim and restrict it to anticausatives. There does not seem to be any evidence whatsoever to the effect that the Subject of 'real unaccusatives' bears any causing property.

as the Subject-of-Transition (in Spec,VP<sub>Become</sub>). The next step involves merging  $\nu_{state}$ . This is by hypothesis a projection that does not have a thematic feature, its only purpose is to introduce a subevent. That means that no movement to Spec, $\nu_{state}$  is triggered. A further Merge adds refl<sup>0</sup>, whose morphological exponent is the reflexive clitic, to the derivation. At this point refl probes for a nominal argument and finds the closest (in fact the only) appropriate Goal - the DP in the object position. The reflexive allows for this DP to bear two  $\Theta$ -roles. Now, the only other role available is the external  $\Theta$ -role of initiator. Consequently, the DP moves to Spec,initP to check the relevant thematic feature. This derivation is illustrated in (68):



Note also that the fact that the DP starts out in a VP-internal position yields a desirable result of enabling en/ne cliticization. If subextraction of that type is only possible out of a VP-internal position (but cf. the discussion in 1.4 for the complications involved), then grammaticality of French anticausative (69) and Italian (70) follows:

(69) a. Il s' **en** est cassé beaucoup dans ce lave-vaisselle. there refl of them is broken many in the dish-washer 'Many of them have broken in the dish-washer.'

(Reinhart and Siloni, 2004:(24c))

b. Se ne sono rotti due. refl of them are broken three 'Three of them have broken.'

(Bentley, 2004:(24h))

This type of analysis derives not only the type of Theme used with anticausatives (i.e. necessarily Theme<sub>high</sub> since this is the only lexical item in Polish that is able to spell out the hierarchy of light verbs). In addition to that, the analysis accounts for the Kayne/Pesetsky's observation in (65) to the effect that reflexive verbs are excluded from clauses which do not have an external argument (i.e. raising and passive verbs), as well as Chierchia's by itself test.

At this point one might raise an objection to the effect that anticausatives do not pass any of the standard external argument diagnostics. Let us however see which of the diagnostics are usually employed:

- compatibility with agent-oriented adverbs, e.g. volitionally, intentionally, etc.;
- compatibility with a by-phrase or Intrumental DP;
- ability to control into an adjunct in order to clause.

As far as I can see, the first and the last test could not possibly give positive results for anticausative precisely because they identify an Agent, and the argument in anticausatives is *not* an Agent, but rather an initiator. Due to the stative nature of the light verb, no agentivity-related test can ever be passed by anticausatives. Finally, the by-phrase test is in fact predicted on the present analysis. Since I do not assume that a by-phrase is an element that doubles the external argument (cf. also the discussion in section 1.6, as well as chapter 4), but rather it is an external argument, it follows that Initiator and a by-phrase are mutually exclusive.

Last but not least, apart from the usually employed agent-oriented *in order* to clauses, there are also present participial clauses. These, on the other hand, do test positively with anticausatives:

- (70) a. Maria przewróciła się, [idąc do szkoły]. Maria $_{NOM}$  overturn $_{pst.3sg.f}$  refl walk $_{pr.prt}$  to school 'Maria overturned when walking to school.'
  - b. Masło roztopiło się, [stojąc na kaloryferze]. butter $_{NOM}$  melt $_{pst.3sg.n}$  refl, standing on radiator. 'The butter melted standing on the radiator.'

The argument in the object position (i.e. Spec, $VP_{Become}$ ) does not seem to be able to control this type of adjunct clauses, as shown in (71):

(71) Anna<sub>i</sub> spotkała Marię<sub>j</sub>, [PRO<sub>i/\*j</sub> idąc do szkoły]. Anna<sub>NOM</sub> meet<sub>pst.3sg.f</sub> Maria<sub>ACC</sub> walk<sub>pr.prt</sub> to school 'Anna met Maria when Anna was walking to school.'

From this fact we conclude that the argument in anticausative sentences in (70) needs to be in a position higher than the internal argument position. Of course this is nothing new or unexpected, since all approaches to anticausatives assume further movement of the DP to the NOM position. What

is new is the juxtaposition with in order to clauses, where this type of movement does not rescue anticausatives. The conclusion seems to be, again, that the purpose clauses are sensitive to some syntactico-semantic feature other than the c-command relation. If this feature is agentivity, then naturally it will not test positively with anticausatives.

At this point I would like to briefly mention reflexive derivations of the  $my\acute{e}$  sie type. As noted with respect to Manzini and Savoia (2004)'s account, there exist certain difference between reflexive and anticausative constructions. These difference include:

- ne-cliticization in Italian (possible only out of anticausatives);
- postverbal subjects in Hebrew (possible only with anticausatives (cf. Reinhart and Siloni (2004)));
- the range of possible subjects (any DP with anticausatives, but only animate DP with reflexives).

Therefore, it seems necessary to distinguish the two derivations structurally, although the same functional projection reflP will be involved in both. I postpone the issue for the time being, as it requires some cross-linguistic investigations in order to give an accurate structural representation for the reflexive derivation. In section 3.1.5 I reduce all the three differences enumerated above to a different, higher light verb projection involved in reflexive derivations. The next section provides some substantiation for this particular projection.

#### 3.1.4 Cross-linguistic evidence for multiple Subject positions

There seems to be some cross-linguistic evidence to the effect that some languages distinguish between projections introducing volitional/ controlling Agents and projections introducing nonvolitional/accidental/inadvert or neutral Causes. A reservation that should also be added at the beginning of this section is that I am not preoccupied here with the broad notion of CONTROL that might also include its presence or absence in relation to intransitive predicates. For example, although a lot of so-called 'split ergative' languages use different grammatical encoding with intransitive verbs (cf. e.g. Dixon (1994), also Mithun (1999) for the discussion of this broad notion of CONTROL), depending on the Semantic role of the argument. I believe that this might actually be a reflection of split intransitivity, rather than different levels of external argument introduction. I am also not preoccupied here with the cases where presence or absence of control comes from suffixes adjacent to or cooccurring with the transitivizers. These cases are labelled in the traditional Salishan literature as Out of Control and will

St'át'imcets

be discussed in chapter 5<sup>24</sup>. Thus, the contrast relevant for the purposes of this section is most conspicuous between controlled and non-controlled transitive verbs. With intransitives some other factors might obliterate the issue.

Let me first introduce the relevant data from St'át'imcets (Lillooet Salish). As shown in e.g. Davis and Demirdache (2000) and Davis (in preparation), in St'át'imcets, similarly to other Salishan languages, all transitive verbs require an overt morpheme attaching to the root (cf. also section 2.1.2.1). There are two types of transitivizers: n-type transitivizer (glossed as DIR(ective), following Davis and Demirdache (2000)) and s-type transitivizers (glossed as CAU(sative)). I illustrate both in (72a) and (72b) respectively.

- (72) a. túp-un' be.punched-DIR 'to punch someone/thing' b. kwis-ts
  - fall-CAU

    'to drop something'

DIR seems to be more marked and Davis and Demirdache (ibid.) characterize the argument introduced by DIR as "a participant to which we ascribe conscious (mindful) control over the action denoted by the predicate." (Davis and Demirdache, 2000:102). Judging from this definition, as well as from the fact that DIR can be used when talking about animals (Henry Davis, p.c.), I conclude that the transitivizer correlates with the feature [+animate]. Thus, DIR is used in accomplishment verbs with the conscious involvement of the Causer.

CAU, on the other hand seems to be a 'default' transitivizer in the sense that it is used wherever n-type transitivizer cannot be used. Thus, CAU occurs with natural (or supernatural) inanimate entities as Causes. Frequently, the s-type transitivizer cooccurs with an Aspectual morpheme (realized as -t-or -p-). In the examples below I boldface the Aspectual 'change-of-state' morpheme (INCH(oative) in (73) and IMM(ediate) in (74)) and italicize the transitivizer.

#### (73) St'át'imcets

a. Zík-t-s-ás ta=sráp=a ts7a ku=xwélmen. fall-IMM-CAU-3ERG DET=tree=EXIS this DET=saw 'This saw cut the tree down.'

<sup>&</sup>lt;sup>24</sup>Admittedly, distinguishing between these cases and (non)control transitivizers will not always be straightforward in every language under consideration.

(74) Sek'w-p-s-ás ta=nk'wanústen=a shatter-INCH-CAU-3ERG DET=window=EXIS ta=qvl-alhtmícw=a. 'The storm broke the window.' DET=bad-CONN-land=EXIS

(Davis, in preparation:chapter 39, (28-29))

The second case where s-type transitivizer is used is embedded under the so-called out-of-control marker ka = ... = a. I will not analyse this scenario here - for details see section 5.2 and 5.4.

Finally, there is a group of predicates with subjects fully in control, yet prefixed with a stative prefix s- (incidentally, identical to a nominalizer) with the meaning of a 'resulting state'.

- (75) Wa7=malh t'anam-ílc kw-á-su
  IMPF=ADHORT try-AUT DET=(NOM)IMPF=2G.POSS
  s-gwel-s.
  STA-burn-CAUS
  'Try to keep it lit!'
- (76) Wá7=tu7 s-7ats'x-s-twítas ta=tmícw=a IMPF=then STA-see-CAU-PL.ERG DET=earth=EXIS nelh=cín'=a úcwalmicw. St'át'imcets PL.ABS.DET=long.time=EXIS people 'The Indians of long ago watched over the land.'

(Davis, in preparation:chapter 39, (34-5))

The same contrast can also be shown by the minimal pair example in (77), where (77a) involves DIR without the prefix, and (77b) involves CAU and a nominalizing prefix.

- (77) St'át'im ce ts
  - a. Lhecw-n-ás ta=áe7m=a leqwáz' ti7 put.on-DIR-3ERG DET=pretty=EXIS dress that ku=smém'lhats.

DET=girl

'That girl put on a pretty dress.'

b. S-lhecw-s-ás ta=á7emh=a leqwáz' ti7 STAT-put.on-CAU-3ERG DET=pretty=a dress that ku=smém'lhats.

DET=girl

'That girl is wearing a pretty dress.'

(Davis, in preparation:chapter 39,(40))

Another scenario where CAU occurs irrespective of the sentience of the Causer is under so-called *indirect causation*. I only mention this fact at this point, but it is significant in the context of chapter 5.

Similarly, Thompson (1979) identifies two transitive suffixes in Lushootseed (spoken in the area of Seattle), where one of them implies full control, whereas the other limited control on the part of the Agent:

- (78) a. ?ulici-d čəd Lushootseed 'I cut it (on purpose)'
  - b.  $?ulic-dx^{w}$   $\check{c} \ni d$  'I cut it (accidentally)'
- (79) a. ?upúsu-d čəd Lushootseed 'I threw something and hit him (intentionally)'
  - b.  $?p\acute{u}s\text{-}dx^w$   $\acute{c}\text{-}dd$  'I threw something and hit him (accidentally)'

(Thompson, 1979:156)

The distinction between control and lack thereof also shows up in another domain, namely agreement patterns. It is the more interesting since the language in question is genetically unrelated to Salishan languages. To wit, as claimed in Aikhenvald (2003), Tariana (a member of Arawak family, spoken in northwestern Brazil), marks the sole argument of intransitive active verbs ( $S_a$ , following Dixon's terminology) by means of a prefix agreeing for person, number and gender. The argument of stative  $S_o$  verbs<sup>25</sup>, however, is not cross-referenced on the verb in any way. The distinction roughly corresponds to the familiar distinction between unergative vs unaccusative verbs. This indicates that only external arguments are cross-referenced on the verb by means of a prefix.

More to the point, however, Tariana allows morphological causativization of most  $S_o$  and  $S_a$  verbs with an interesting quirk (cf. Aikhenvald (2003:268)). The causative morpheme used is -i or -ita. Interestingly, causatives of  $S_o$  verbs can be prefixed or prefixless, depending on 'whether the result is achieved intentionally, or not' (Aikhenvald, 2003:269). (80) illustrates a bare  $S_o$  verb, (81)- it's causative countepart. According to Aikhenvald, since the action of warming up food is perceived as intentional, the subject is cross-referenced by means of a prefix.

 $<sup>^{25}</sup>$ This is the exact formulation from (Aikhenvald, 2003:239). By looking at the examples, however, one might infer that these are not only statives, but also dynamic eventualites whose sole argument is interpreted as Theme.

- (80) Tariana
  - a. ke:ri-ne-mha pana-phe meri. sun-INSTR-PRES.NONVIS leaf-CL:LEAF.LIKE be.toasted 'The leaf is dry (lit.toasted) because of the sun.'

(Aikhenvald, 2003:13.39)

(81) paita kuphe **di**-meri**ta**-ka one+NUM.CL:ANIM fish 3sgnf-be.toasted+CAUS-REC.P.VIS 'He toasted one fish.'

(Aikhenvald, 2003:13.40)

In contrast, 'debilitating' in (82) is achieved unintentionally, and the causative formed this way is prefixless:

(82) isa nu-na inasueta-mahka wound 1sg-OBJ be.lazy/debilitated+CAUS-REC.P.NONVIS 'The wound made me debilitated (or lazy).'

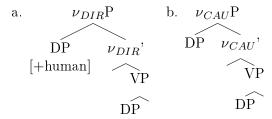
(Aikhenvald, 2003:13.41)

Irrespective of one's theory of Agreement, i.e. whether Agreement is taken to be a reflection of a long-distance Agree operation (as in Chomsky (1999)) or whether it is taken to hold in a Spec-head configuration arising by movement, it surely is the minimal assumption that Agreement holds with specific syntactic positions in the tree. On this minimal assumption it seems the argument introduced by the causative in (81) has to involve a different syntactic position from the one introducing the argument in (82), unless a conceptually undesirable notion of 'optional agreement spell-out' is resorted to<sup>26</sup>. Note also that, although Aikhenvald is not explicit about it, it seems that the distinction correlates with the sentience/animacy of the external argument.

This cross-linguistic evidence allows me to propose that the distinction in question is in fact a universal. The question that arises is how should this distinction be implemented syntactically. Since bare roots in Lillooet Salish are argued to be unaccusatives (cf. Davis (2000)), i.e. under present assumptions they lexicalize as much as  $V_{Become}$ , and all transitive verbs require the presence of one of the two transitivizers, the first hypothesis is that DIR and CAU must be exponents of  $\nu$ . One alternative that suggests itself immediately is to assume that the difference between the two transitivizers corresponds to two different flavors of  $\nu$  (as assumed e.g. in Folli and Harley (2002)) attaching at exactly the same place in  $f_{seq}$ .

 $<sup>^{26}</sup>$ This solution is the more undesirable in view of the fact that there clearly is a generalization behind the presence or absence of the prefix.





This hypothesis, however, is conceptually flawed. Namely, under the present assumptions relating to very fine-grained functional decomposition it is undesirable to postulate many 'flavors' of functional projections. This is because we end up with an unrestricted system of many functional heads multiplied exponentially by the number of selected flavors (cf. section 1.1 for the discussion of the relevant point).

The only alternative, then, is to say that the two thematic projections correspond to different levels in  $f_{seq}$ . Considering the semantics of both types of transitivizers, and in particular the very loose connection between the argument introduced by CAU and the embedded event, I propose that  $\nu_{CAU}$  in fact corresponds to initP.

The question is now whether the projection responsible for introduction of animate external arguments with DIR could be merged directly on top of  $VP_{Become}$ . In other words, could it be the  $\nu$ ? The answer to this question must be negative for the following reason. If the external argument was introduced in Spec, $\nu$ P immediately dominating  $VP_{Become}$ , there would be no way to ever derive a construction without an external argument and with  $\nu$  present in the framework dispensing with 'flavors' of projections. Consider Periphrastic Passive in Polish in (84):

(84) Książka została prze-czyt-**a-n**-a. book $_{NOM.f}$  become $_{pst.3sg.f}$  pref-read-aj-PASS-f 'The book has been read.'

Given the analysis of the Theme<sub>high</sub> (in this case -aj-) presented in chapter 2, Polish transparently shows that since Passive embeds the Theme, it also by transitivity embeds  $\nu$ . Yet, there is no mention in (84) of the external argument. Instead, the external argument is implied and can be expressed in an optional by-phrase. For that reason I assume that the only external argument that is available at the level of the first  $\nu$  is an adjunct-like by-phrase. Similar assumption is made in Collins (2004), where it is taken to yield a desirable result of merging external arguments in the same place in both active and passive sentences. If  $\nu$  does not introduce an argument, that means there is a need for the existence of another projection - the one relevant for introducing animate DPs. The question is what is its ordering in  $f_{seq}$  with respect to initP. In other words, which of the two types of external

arguments gets introduced lower and which higher? In spite of the shortage of empirical evidence to resolve this issue, there are some theoretical considerations related to it.

These relate to the type of predictions that the two alternative structures in (85) yield.

(85) a. 
$$\left[\inf_{\nu_{DIR}P} \left[\nu_{DIR}P\right]\right]$$
  
b.  $\left[\nu_{DIR}P \left[\inf_{\nu}P\right]\right]$ 

In a lavish insertion system, where verbal stems are spelling out  $f_{seq}$  chunks of various sizes, one expects to see diffent groups of verbs, depending on which structure in (85) is assumed. The structure in (85a) predicts the existence of two natural classes of verbal stems: (i) class I containing verbs whose external argument bears both  $\Theta$ -features: that of an Agent (acquired in Spec,  $\nu_{DIR}$ P), and that of an initiator (acquired in Spec, initP); (ii) class II containing verbs which spell out only up until  $\nu_{DIR}$  and hence their external argument is restricted to animate controlling Agents. On the other hand, the structure in (85b) makes the same prediction with respect to class I, but it differs with respect to class II: under this hypothesis there should exist a group of verbs whose external argument is restricted to inanimate nonsentient Causes. As it turns out, there are no such verbs. This is also the conclusion in Levin and Rappaport (1995) (cf. also Marelj (2004:chapt. 4, p.33)). I enumerate some of the verbs whose external argument can be both initiator and Agent in (86a), whereas the verbs restricted to animate sentient arguments are in (86b).

(86) a. break, cut, open, melt, entertain, surprise b. murder, read, walk, see, send, smear

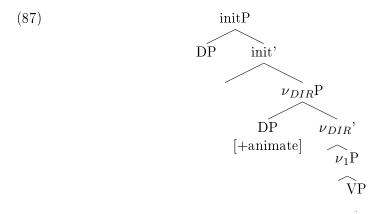
It needs to be observed that the verbs in (86) are purposefully quite heterogenous (e.g. apart from standard transitive verbs, there is also a perception verb, as well as ditransitive verb and so-called psych-verbs). Thus, no common analysis is implied. Yet, the lack of a group of verbs which would ban animate or human Agents seems striking<sup>27</sup>. For this reason, I conclude that the hypothesis in (85b) should be rejected.

Taking into consideration these empirical predictions, I take it as a working hypothesis that the projection hosting [+animate] arguments is located lower than initP, but on top of the first light verb  $\nu_1$ P. initP, on the other hand is the highest pojection hosting arguments that are semantically unrestricted. This relates to the idea of *peeling* arguments in the course of the

<sup>&</sup>lt;sup>27</sup>There are occasional cases of monovalent verbs taking only inanimate arguments, e.g. *suffice*, *rain*, etc. Yet, firstly, it is not clear whether the argument in question is really external, and secondly, the phenomenon is not systematic in the sense that no semantically homogenous group of verbs can be delimited.

derivation (cf. the discussion in section 1.7). I will argue that arguments are born as oblique structures (i.e. as semantically unrestricted by-phrase in Spec, $\nu_1P$ ) and lose the oblique shells by movement to certain verbal functional projections. This is the way structural case emerges from obliques. These movements, I will claim, will correlate with certain semantic interpretations of arguments. Thus, the higher the verbal projection, the more specific semantic interpretation of the DP. Crucially, movement of the argument throughout the light verb system has to be succesive, i.e. the argument cannot jump across several verbal heads, skipping the projections inducing a specific semantic requirement. If this is the case, however, the question arises what happens in the case of a vanilla-flavor active clause, where the Subject does not display any special semantic restrictions, e.g. in *The storm broke the tree*. I submit that in this case the external argument is merged directly in Spec,initP, without undergoing any movement through the light verb system.

Incorporating the results of the above discussion, let me propose two external argument positions in (87).



In (87) I label the first light verb projection introducing a subevent and optionally a by-phrase  $\nu_1$ , and the higher one  $\nu_{DIR}$ , to keep the Salishan reference and as a mnemonic.

It needs to be emphasized, however, that at this point (87) is just a working hypothesis. As the argument develops, however, the reader will hopefully see all the desirable consequences stemming from the ordering in (87), one of the main empirical advantages being the fact that the semantic restrictions on the argument are always visible in case there is some matrix predicate dominating, i.e. in embedded contexts<sup>28</sup>. It seems worthwhile to pinpoint one type of empirical consideration in favor of ordering  $\nu_{DIR}$  below initP. Assume it was possible to satisfy the  $\Theta$ -feature by Merge, i.e. the Agent in

<sup>&</sup>lt;sup>28</sup>Travis (2005) also proposes distinguishing between projections introducing Agents, and the one introducing Causes. Yet, in her structure the former c-commands the latter. Cf. chapter 5 for discussion.

Spec, $\nu_{DIR}$  and the initiator would be distinct arguments. If the nonsentient Cause argument was introduced lower, and the conscious Agent higher, it is not clear in what sense the higher argument could influence the lower one since Cause is [-sentient]. In fact, this seems to be the scenario relevant for external causatives, e.g. Italian so-called *Faire Infinitive*:

(88) \*Gianni ha fatto rompere la finestra al ramo. intended: 'John got the branch to break the window.'

Folli and Harley (2002:20bd)

(89) La rabbia fece rompere il tavolo a Gianni. 'The rage made Gianni break the table.'

Folli and Harley (2002:28a)

Assuming that the structure in (89) is in fact monoclausal, and the argument of the causative verb initiates the event of breaking in a very loose sense, whereas the argument of the embedded lexical verb is a controlling sentient Agent, we get exactly the right animacy predictions: the initiator can be any DP, whereas the Agent has to be an animate DP. If the c-command relation was the reverse (i.e. animate Agents introduced higher and nonsentient Causes introduced lower), it is rather unexpected that (88) should be ungrammatical.

Coming back to the structure in (87), although there are two DPs represented in the two relevant projections, the usual scenario will in fact involve only one. In other words, once a DP is merged in Spec, $\nu_{DIR}$ , the  $\Theta$ -role of initiator is usually satisfied by Move/Remerge, but not by Merge, other things being equal<sup>29</sup> .  $\nu_{DIR}$  is always present in  $f_{seq}$ , but not always its effects are visible. Namely, the external argument only moves through this projection in case there is a  $\Theta$ -feature on it. Furthermore, it stays in this position whenever some other item blocks higher thematic positions. Specific constructions of this type will be analysed in the remaining part of the thesis.

For the particular case of St'át'imcets I hypothesize that the -n- transitivizer is lavishly inserted to spell out the subsequence  $[\nu_1, \nu_{DIR}]$ . I remain agnostic, however, with respect to the nature of -s- transitivizer. This seems to be a harder issue since -s- occurs in a lot of cases, e.g. on top of intransitivizers, and is in fact described by Davis (in preparation) as a default transitivizer.

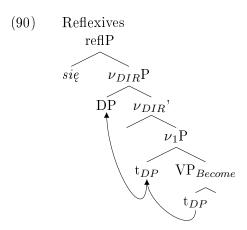
 $<sup>^{29}</sup>$ Other things are not equal when there is an Event Separator, which enables introducing another event. In this particular scenario, the  $\Theta$ -feature on init can be satisfied by Merge. I assume this is a situation in so-called external or syntactic causatives, although I will not analyse the latter for space reasons.

Therefore, it seems that its lexical specification must be extremely flexible. I leave the details of it, however, for future research.

#### 3.1.5 Other reflexive-marked derivations

#### Reflexives

Now, the claim is that reflexives differ from anticausatives in the type of causing subevent involved, i.e. differently from anticausatives, reflexives employ an agentive processual light verb labelled  $\nu_1$  (as opposed to  $\nu_{stat}$  in anticausatives). The argument in reflexives has to be construed agentively, as well as it has to be animate. As I argued in the previous section, this type of arguments is hosted by a different light verb -  $\nu_{DIR}$ . Thus, I propose that the structure of reflexives looks as in (90):



It needs to be observed that the assumption in (90) is that initP is absent<sup>30</sup>. The derivation proceeds as follows. First, the argument is merged in a VP-internal position, i.e. in Spec,VP<sub>Become</sub> and interpreted as Undergoer. The next step involves merging the processual light verb introducing the causing subevent, which bears a thematic feature, so it attracts the internal argument to its specifier<sup>31</sup>. Subsequently,  $\nu_{DIR}$  is merged and the argument moves to Spec, $\nu_{DIR}$  in order to check the Agent feature. It needs to be pointed out again that the thematic feature on  $\nu_1$ , as well as  $\nu_{DIR}$  has to be optional in general. This is because, although  $\nu_{DIR}$  is necessarily present in every structure involving high Themes, its effects are obviously not always visible. In other words, not every Subject of a high Theme stem displays animate Subjects. If  $\nu_{DIR}$  always came with an uninterpretable thematic feature, one would expect all external arguments to have to move through

<sup>&</sup>lt;sup>30</sup>This might in fact depend on the lexical specification of the *lavishly inserted* reflexive, as we will see in chapter 5. For the present purposes the point is irrelevant.

<sup>&</sup>lt;sup>31</sup>The reader will recall that the assumptions is that if the first of the light verb projections has a thematic feature, all the remaining projections also have one.

Spec, $\nu_{DIR}$ , and consequently to display animacy restriction. The question then is why should the relevant feature necessarily occur in the case under discussion, i.e. the reflexive derivation. The answer to this question lies in the type of feature that the reflexive identifies. Suppose that the optionally introduced thematic feature on  $\nu_1$  is the highest level in the hierarchy of thematic features, i.e. simply  $\Theta$ . I submit that the reflexive is not sensitive to this type of feature. Instead, it enters Agree with the higher level of featural distinctions, let us say  $\Theta_{external}/\Theta_{internal}^{32}$ . If a DP present in the Numeration bears this feature, the reflP can be merged as the next step in a derivation. It probes for the closest DP with the relevant nominal features, which in this case is the only argument available in Spec, $\nu_{DIR}$ , and licenses the unification of the external and internal role on this argument.

A further issue is morphological in nature, i.e. which morphemes lexicalize which parts of  $f_{seq}$ . In section 1.2 I suggested that high Themes present in reflexive derivations are lexically specified to spell out the whole hierarchy of light verbs, yet they can be down-squezed by other lexical items. I propose that in the reflexive derivation in (90) Theme<sub>high</sub> is inserted for the subsequence [ $V_{Become}$ ,  $\nu_1$ ,  $\nu_{DIR}$ ]. This is similar, but not identical to Lillooet Salish DIR transitivizer. The latter cannot be employed to spell out the structure below  $\nu_1$ , differently from Polish Themes. The reason this downsquezing in reflexive structures happens is because the reflexive marker is inserted to spell out all the projections above  $\nu_{DIR}$ . That hypothesis presupposes lavish insertion of the reflexive marker. In other words, refl<sup>0</sup> is only one of the heads involved in the lexical specification of the relevant clitic. How exactly does this negotiation of structure spell out between the Theme and the clitic happen? Recall that lexical insertion in the present system is late. Suppose it happens after the whole macro-event has been built, i.e. after initP is merged (if present) or else after the whole hierarchy of light verbs has been merged. At this point, if both the Theme and the reflexive clitic are inserted at the same time with their full lexical specifications, the derivation will crash. In fact, it will crash whenever there is any overlap in the specification of both items. In order to see that, however, we need to know what is the lower boundary of the reflexive. If it is the first projection on top of  $\nu_{DIR}$ , and this boundary is not flexible (in other words, cannot be up-sqeezed), then the only possible spell-out negotiation between the reflexive and the Theme is the scenario described above, i.e. the Theme spelling up till  $\nu_{DIR}$ , and the reflexive spelling out its usual specification. Yet, as

<sup>&</sup>lt;sup>32</sup>Although it is questionable that the semantic content of this distinction really hinges on the split between external and internal, as in other languages, e.g. Czech, the reflexive can identify two internal roles in the absence of an external one. In the latter sense the scenario is similar, though, to the init-less structure that I propose for the reflexive derivation. I leave the exact semantic content of the thematic role distinction for future research.

we will see in chapter 5, the reflexive clitic has a flexible lower boundary as well. If this is so, however, one would expect one more plausible converging derivation. Both of the theoretically possible spell-out negotations are illustrated in (91).

(91) a. 
$$[reflP \ [ \dots \ [\nu_{DIR}P \ [\nu_{1}P \ [VP_{Become}]]]]]]$$
 $\longrightarrow się \longrightarrow \longrightarrow Th \longrightarrow$ 

b. 
$$[reflP \ [ \ \cdots \ [\nu_{DIR}P \ [\nu_{1}P \ [VP_{Become}]]]]]$$
  
 $\vdash$  refl  $\vdash$  Th  $\vdash$ 

To reformulate the question, why is it that the spell out negotiation is tied to the movement of an argument to a specific position? I suggest that the reason is the specification of the reflexive clitic: the projections that the reflexive clitic spells out do not have any thematic features whatsoever. Thus, if  $\nu_{DIR}P$  is merged with the relevant thematic feature and the argument moves to its Specifier to check this feature, no reflexive clitic can be inserted to spell out this projection later on in the derivation due to a feature clash.

This type of analysis, I believe, accounts for the usual problems with reflexivemarked verbs related to their ambiguous behavior. E.g. Sportiche's 1998 observation to the effect that reflexive derivations must involve a derived Subject due to the participial agreement seems to point in the unaccusative analysis direction:

(92) La voiture est passè-e. the  $\operatorname{car}_f$  is passed-f 'The car has passed.'

This observation is challenged in Reinhart and Siloni (2004), where the authors argue that there is evidence that the argument of reflexive verbs is generated in VP-external position. The relevant evidence concerns the ability to occur in so-called *simple inversion* in Hebrew, i.e. in a postverbal position. The paradigm is illustrated in (93): postverbal position is allowed for Subjects of unaccusatives ((93a)), passives ((93b)), and anticausatives in *hitpael* template ((93e)), but it is ungrammatical with unergatives ((93c)) and reflexive verbs ((93d)).

- (93) a. nišbar mašehu *Hebrew* broke something
  - b. ne'ecru šloša xayalim ba-hafgana were arrested three soldiers in the demonstration
  - c. \*rakdu šloša yeladim ba-mesiba danced three boys in.the.party

- d. \*hitlabšu šaloš dugmaniyot ba-knisa dressed three models in.the.entrance
- e. hitalfu šloša xayalim ba-hafgana fainted three soldiers in.the.demonstration

Reinhart and Siloni (2004:28)

From our perspective the most interesting is the contrast between (93d) and (93e), as it seems to indicate that it is not only the external vs internal argument distinction, but a more fine-grained distinction related to a particular type of movement of the argument involved in the reflexive structure on the one hand, and the anticausative one on the other. I could not possibly offer a detailed account of the relevant Hebrew word order facts, since it would require a detailed investigation into the position of the argument (whether it is base-generated or derived, etc.). It should be stressed, however, that the present account opens the possibility to distinguish between reflexive and anticausatives structurally, and hence potentially also in terms of word order: e.g. I argued above that the Subject of reflexives needs to pass via Spec, $\nu_{DIR}$ on its way to the NOM-licensing position, but the Subject of anticausatives cannot pass through this position, irrespective of the fact whether it moves to Spec,  $\nu_{stat}$  or not. At the same time, the account predicts the facts relating to the participial agreement since the Subject of reflexives is in fact derived, similarly to the Subject of anticausatives<sup>33</sup>. Finally, the analysis enables a unified treatment of the *hitpael* template, where the relevant morphology is specified to spell out the various subsequences equivalent to the reflexive clitic and Theme<sub>high</sub> stems in other languages. It is quite interesting to note that this particular template does not employ only vocalic melody, but it also displays a prefix hit-. This seems to indicate an independent status of hit- equivalent to the reflexive clitic. I leave the investigation of Hebrew templates to the people more knowledgeable about it (cf. also Doron (1999)). Similar considerations arise with respect to the difference between reflexives and anticausatives relating to subextraction tests. Reinhart and Siloni (2004) show that ne/en-cliticization is possible with anticausatives ((94a)), but ungrammatical with reflexives ((94b)) in French and Italian.

(94) a. Il s' **en** est cassé beaucoup dans ce lave-vaisselle. there refl of them is broken many in the dish-washer 'Many of them have broken in the dish-washer.'

<sup>&</sup>lt;sup>33</sup>I put aside here the complications involved in cross-linguistic facts relating to participial agreement. If participial agreement turns out not to be a sufficient argument for the derived nature of arguments of reflexives, then I take the thematic interpretation of this argument (i.e. as Theme/Patient/Undergoer) to be enough reason for a VP-internal merge of the relevant argument.

b. \*Il s' en est lavé beaucoup dans ces douches there refl of.them is washed many in these public publiques, récemment. showers recently

(Reinhart and Siloni, 2004:(24))

Assuming that the subextraction test is contingent on the c-command relation, it might simply be the case that at the level where subextraction happens the Subject of anticausatives is still in a c-commanded position (since its movement is procrastinated until initP is merged in the structure), but the Subject of reflexives has already moved out of the subextraction domain (e.g. to Spec, $\nu_{DIR}$ ).

Finally, many predicates are ambiguous between the reflexive and anticausative derivation, depending on the pragmatic context. This is because many roots are compatible with either an agentive or stative causation scenario. Thus, e.g. the verb illustrated in (95) can only be disambiguited by the context:

- (95) a. Drzwi wy-krzyw-i-ły się od zimna. door<sub>NOM</sub> pref-crooked-Th-pst.3pl.nonvir refl from cold 'The door got crooked from the cold.'
  - b. Maria s-krzyw-i-ła się z niesmakiem. Maria $_{NOM}$  pref-crooked-Th-pst.3sg.f refl with distaste 'Maria made a wry face.'

Since the argument in (95a) is inanimate, the anticausative derivation is imposed. This is because  $\operatorname{Spec}, \nu_{DIR}P$  by assumption does not host inanimate DPs. (95b), on the other hand is easily construable as a reflexive, but anticausative syntax is not impossible. That kind of slippage opens a possibility that in the case where the argument of a *prima facie* anticausative can control into a purpose clause (as in (21a) and (22a)), we are in fact dealing with reflexives. As far as I can see, the question is not verifiable in Polish.

As for so-called Reflexiva Tantum, I assume they can be parasitic on either anticausative or reflexive structure. Thus, e.g. czerwien-i- $\acute{c}$  się ('get red') and pojaw-i- $\acute{c}$  się ('appear/turn up') are easier construed as anticausatives since the argument seems not to be sentiently involved in causation, whereas mizdrz-y- $\acute{c}$  się ('wheedle/ogle') or gramol-i- $\acute{c}$  się ('clamber') are better thought of as involving some conscious and intentional actions. In Polish, again, as far as I can see, there are no diagnostics that would differentiate the two structures, but subextraction might be the relevant tests for Romance inherently reflexive verbs.

### Unergative, transitive and RP-augmented structures

One might contend at this point that the fine-grained thematic domain leaves many more possibilities for the reflexive clitic to occur, and yet it does not. For instance, in the Ramchandian system, where unergative structures involve two  $\Theta$ -roles checked by the same argument: Undergoer and Initiator, one would expect to see the licensing of this identification by means of the reflexive clitic. This is clearly not the case:

(96) Marek biegał (\*się).

Marek<sub>NOM</sub> run<sub>pst.3sg.m</sub> (\*refl)

'Marek ran/was running.'

The reader will recall, however, that in section 1.1 I argued that there is no motivation for the presence of  $VP_{Become}$  introducing an Undergoer in unergatives. Moreover, the relevant projection has to be absent in lexically prefixed verbs with unselected objects due to particular selectional restrictions. Thus, on the present analysis, no identification of external and internal  $\Theta$ -role is present in (96). Therefore, the lack of the reflexive clitic is expected. Let us now turn to transitive structures. With transitives, the external argument role is satisfied by Merge. Let us consider the derivation in (97):

(97) [reflP 
$$sie$$
 [ $\nu_{DIR}$ P DP<sub>2</sub> [ $\nu_1$ P [VP<sub>Become</sub> DP<sub>1</sub> ]]]]

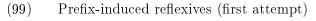
At the point where reflP merges, it looks for the closest Goal with the relevant nominal features, i.e.  $\mathrm{DP}_2$ . No identification of thematic roles can be done, however, since the internal role has already been checked by a different argument, i.e.  $\mathrm{DP}_1$ . Therefore, the derivation with the reflexive clitic crashes. The question is, however, why couldn't refl<sup>0</sup> license identification of two external  $\Theta$ -roles: Agent and initiator. The ungrammaticality of such derivations seems to indicate an important property of refl, namely the fact that it must be able to distinguish between VP-external and VP-internal arguments. This is in fact further substantiated by the so-called Subject-orientation of the reflexive with ditransitive verbs, as well as in RP-augmented structures (cf. the discussion below).

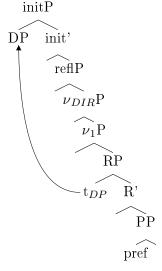
Since I assumed above, however, that the movement of the external argument to  $\operatorname{Spec}_{\nu}\nu_{DIR}$  is not obligatory, as the thematic feature on  $\nu_{DIR}$  is not obligatory, let us consider another derivation:

(98) [initP DP<sub>2</sub> [reflP 
$$sie$$
 [ $\nu_{DIR}$ P [ $\nu_{1}$ P [VP<sub>Become</sub> DP<sub>1</sub> ]]]]]

Now, at the point of merger of reflP the closest nominal Probe is  $DP_1$ . Consequently, the reflexive would have to identify this argument as a bearer of both the internal, as well as external  $\Theta$ -role. This being so, however, the initiator role could only be checked by Move/Remerge, and not by Merge, as in (98). Therefore, the transitive structure with reflP is illegitimate.

Finally, let us consider RP-augmented structures. Prefix-induced reflexives are exactly one of those. In accordance with the event decomposition argued for in section 1.1, I assume the prefix is merged in the PP complement of RP and the sole argument identifies the Subject of Result State. Now, in principle the Resultee could move directly to Spec,initP without stopping on the way in Spec, $\nu_{DIR}$ P if there is no relevant feature on the latter projection. This hypothetical derivation is illustrated in (99):





It is not clear to me whether  $VP_{Become}$  should be present in (99). If there was  $VP_{Become}$  present in the structure, the DP argument would have to move via its Specifier before moving to Spec,initP, as otherwise some version of Minimal Link Condition (Chomsky (1995a)) would be violated. Yet, as the reflexive anyway is sensitive to external vs internal role distinction, it would identify the roles of Undergoer and Initiator. That seems to suggest that identification of two internal  $\Theta$ -roles does not require licensing by means of the reflexive. I will return to this issue in other derivations.

One prediction that stems from the structure in (99) is that subextraction should be permitted since movement of the DP is delayed until initP is merged, exactly as in the case of anticausatives. In reality, however, this derivation is not attested, as we will see below for Russian.

The reasons that allow one to doubt the correctness of (99) are the following. Firstly, all of the prefix-induced reflexives display animacy requirement on their Subjects.

(100) a. Marek dość już na-leżał się na kanapie. Marek $_{NOM}$  enough already na-lie $_{pst.3sg.m}$  refl on sofa 'Marek has lied on the sofa (to satiation) already enough.'

b. ??Ta książka na-leżała się już dość na półce. this book $_{NOM}$  na-leżała refl already enough on shelf

In spite of the fact that  $le\dot{z}e\dot{c}$  ('lie') can be predicated of both animate and inanimate arguments, when it occurs in its prefix-reflexive instantiation, it is infelicitous with inanimate Subjects, unless we coerce it to have some sentient properties, as e.g. in a scenario where one sympathasizes with unread books. Some more examples of prefix-induced reflexives are illustrated in (101):

- (101) a. **na**-chodzić **się** (pref-walk refl; 'walk enough')
  - b. wy-krwawić się (pref-bleed refl; 'bleed out completely')
  - c. **roz**-płakać **się** (pref-cry refl; 'burst into crying')
  - d. do-kopać się (pref-dig refl; 'reach sth by digging')

Since in general the overwhelming majority of lexically prefixed verbs forms SI, I take the fact that (101b-d) form SI as indicative of the lexical status of prefixes. The inability of (certain)  $\mathbf{na}$ -... $\mathbf{sie}$  stems to form it has to be explained independently. Thus, (100) suggests that certain prefixes require the Subject of RP to move through the Specifier of  $\nu_{DIR}$ P (as in the reflexive derivation). If that is so, we expect subextraction with these cases to be impossible. And in fact, Russian Genitive of Negation (to the extent that it is comparable to Romance subextraction, cf. section 1.4) seems to be much easier with anticausatives than with prefix-induced reflexives, as shown in (102) and (103).

#### (102) Anticausative

a. V etom restarane ne **razbilo-s**' ni odnoj butylki in this restaurant neg break-refl not one $_{GEN}$  bottle $_{GEN}$  wina. 'Not a single bottle of wine broke in this restaurant.' wine $_{GEN}$ 

#### (103) Prefix-induced

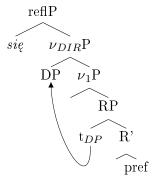
a. \*Nad etoj problemoj ne **za-dumalo-s**' ni odnogo čeloveka. on this problem neg pref-think-refl not one GEN manGEN intended: 'Not a single man stopped to ponder about this problem.'

The question is why prefix-induced reflexives should not make use of the derivation in (99), and instead require their arguments to travel via  $\operatorname{Spec}, \nu_{DIR}P$ . One reason might be that, similarly as in the reflexive derivation, initP is spelled out by the reflexive clitic and hence a thematic feature on initP must be missing.

Thus, the reflexive clitic with prefix-induced reflexive verbs spells out all the projections on top of  $\nu_{DIR}$  but no thematic features are present on them by hypothesis. In order for the reflexive to find an appropriate Goal, the DP has to display both internal and external argument feature. Moreover,

 $\nu_{DIR}$  needs to be spelled out by the Theme and equipped with the relevant thematic feature. The derivation is illustrated in (104):

## (104) Prefix-induced reflexives (final)



It is clear from (104) that subextraction or Genitive of Negation possibilities should be as in the case of reflexive verbs, as they in fact are in Russian (103). The relevant facts cannot unfortunately be verified for Polish, since Genitive of Negation does not apply to deep objects in Polish almost at all. One might consider the distributive prefix po-, which seems to require the presence of object in the sense that it is incompatible with unergative verbs. Unergative śpiewać ('sing'), when prefixed with po- can only receive a delimitative reading, but not a distributive one, as shown in (105).

(105) Chłopcy po-śpiewali. boys $_{NOM}$  po-sang $_{pst.3vir}$  'The boys sang for a while/\*distributively.'

However, on closer examination it turns out that the distributive prefix is not comparable to ne/en-cliticization in Romance, since it also applies to reflexives, and therefore is not fine-grained enough to distinguish between anticausatives and reflexives:

## (106) Reflexive

a. Wszystkie dziewczynki **po-**myły **się**. all girls po-wash<sub>pst.3nonvir</sub> refl 'All the girls washed distributively.'

Anticaus a tive

b. Wszystkie butelki  ${f po}$ -rozbijały  ${f sie}$ . all bottles po-break.apart $_{pst.3nonvir}$  refl 'All the bottles broke distributively.'

#### Prefix-induced

c. Wszyscy chłopcy **po**-za-kochiwali **się** all boys po-pref-love<sub>pst.3vir</sub> refl 'All the boys fell in love distributively.'

Coming back to other  $\Theta$ -roles that the clitic might identify, in an elaborated event decomposition that I am working with, one might envisage a situation where one DP checks two  $\Theta$ -roles VP-internally, i.e. the Subject of Result, as well as the Subject of Transition. These two positions are identified on a regular basis in transitive structures with lexical prefixes. For instance, (108) is a derivation for (107):

- (107) Maria roz-biła (\*się) szybę. Maria $_{NOM}$  pref-break $_{pst.3sg.f}$  (\*refl) pane $_{ACC}$  'Maria broke the pane.'
- (108) [initP DP<sub>2</sub> [ $\nu_{DIR}$ P [ $\nu_{1}$ P [VP<sub>Become</sub> DP<sub>1</sub> [RP t<sub>DP<sub>1</sub></sub> ]]]]]

In (108) I remain agnostic with respect to the movement of external argument via Spec,  $\nu_{DIR}$ . In other words, (107) is ambiguous between the sentient controlling Agent interpretation, and the 'pure initiating' one.

Now, if the reflexive were inserted on top of  $\nu_{DIR}$ P, it would identify DP<sub>1</sub> as the closest Goal. In this case, however, the indentification of external and internal  $\Theta$ -role would mean that the Initiator feature can only be checked by Move. That is the reason why the version of (107) with the reflexive marker is illegitimate. From this fact, again, we conclude that identification of two VP-internal roles (i.e. Undergoer and Resultee) does not require any special licensing mechanism.

This generalization, however, is not totally bulletproof. To wit, there exists rare cases where Theme<sub>low</sub> stems display a reflexive marker. Two that I can think of are illustrated in (109) and both of them involve lexical prefixation:

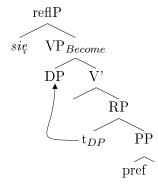
- (109) a. Mięso roz-marz- $\varnothing$ -ło się. meat $_{NOM}$  pref-freeze- ${\bf n}$ -pst.3sg.n refl 'The meat defrosted into pieces.'
  - b. Miska roz-pad- $\varnothing$ -ła się na kawałki. bowl $_{NOM}$  pref-fall- $\mathbf{n}$ -pst.3sg.f refl into pieces 'The bowl fell into pieces.'

Note that in both cases the low Theme inchoative -n- stems are involved<sup>34</sup>. As predicted, no animacy requirement holds of the Subject of those verbs. To the extent then that lexical prefixation (and hence the presence of RP) is crucially involved, (109) seems to confirm the above analysis of the reflexive marker as identifying two  $\Theta$ -roles. On the other hand, the statement concerning licensing of identification of an internal with external  $\Theta$ -role requires some qualification. I would like to propose that although identification of two internal  $\Theta$ -roles does not in principle require licensing, it does not prohibit it either. In other words, in case the reflexive is Merged on top of VP<sub>Become</sub> in the structure in (110), it will exceptionally license identification of the

 $<sup>^{34}</sup>$ The reader will recall from section 2.2.4 that Theme<sub>low</sub> deadjectival -ej- stems do not take lexical prefixes for structural reasons.

two VP-internal  $\Theta$ -roles. This is possible because the reflexive is lavishly inserted for the light verb projections, but none of those have any thematic features, and hence no external  $\Theta$ -role is available. The derivation is illustrated in (110):

(110) Prefix-induced reflexives with low Themes



It should be remarked, however, that these counterexamples are very rare, and should be listed in the lexicon with the reflexive clitic. In the great majority of cases, and especially with novel Theme<sub>low</sub> stems, no reflexive marker can possibly be involved, as in (111) formed from highly colloquial or slang terms<sup>35</sup>:

- (111) a. zgredz-ie- $\acute{c}$  (\*sie) ('to become old and gaga', cf. zgred ('an old bore'))
  - b.  $ocip-ie-\acute{c}$  (\*się) ('to go mad (vulg.)', cf. cipa ('female genital organ'))

Cetnarowska (2000:(10ab))

In view of the discussion above I propose the following characterization of the reflP:

(112) reflP searches for the closest Goal with the feature  $\alpha$  and licenses identification of an external and an internal  $\Theta$ -role:  $\Theta_e = \Theta_i$ . Exceptionally, when no  $\Theta_e$  is present, refl can identify two internal  $\Theta$ -roles.

It follows from (112) that whenever the reflexive marker is present, there have to be two  $\Theta$ -positions involved in the derivation. The following options arise:

- (i) Agent and Undergoer (reflexive derivation)
- (ii) Agent and Resultee (prefix-induced reflexives)
- (iii) Initiator and Undergoer (unprefixed anticausatives)

 $<sup>^{35}</sup>$ All of the Themes in (i) are low -ej- conjugation class. Novel inchoative -n- stems seem harder to find, which might indicate that the -ej- suffix becomes the productive low Theme in modern Polish.

- (iv) Initiator and Resultee (lexically prefixed anticausative, e.g. za-bić się ('get killed'))
- (v) Undergoer and Resultee (only with Theme<sub>low</sub> stems)

Since all of the first four derivations necessarily involve the light verb system, it follows that only high Theme stems will be involved. The last structure, however, must always involve only low conjugation class markers, as if there is a light verb system present, the reflexive will identify the closest Goal as a bearer of an internal and an external role, i.e. one of the previous scenarios.

# Absence of intransitive RP-augmented Theme<sub>high</sub> stems

There is one striking fact which seems to corroborate the analysis presented above. To wit, it is extremely rarely that one finds intransitive Theme<sub>high</sub> stems augmented by RP and without the reflexive marker. In other words, whenever a lexical prefix is added to a stem that displays Theme<sub>high</sub>, one of the two things happen:

- (i) either an unselected object is added, i.e. Resultee is not identified with Agent/Initiator (and consequently no reflexive clitic is required);
- (ii) or the reflexive marker is added, i.e. identification of Agent/Initiator with Resultee needs to be licensed by the presence of refl. Some of the examples follow.
- (113) a.  $roz-hasa-\acute{c}$  (\*sie) ('get into playing', -aj- stem)
  - b. roz-dziel-i- $\acute{c}$  (tr.) or roz-dziel-i- $\acute{c}$  (\*sie) ('divide', -i- stem)
  - c. roz- $ta\acute{n}cz$ -y- $\acute{c}$  (tr.) or roz- $ta\acute{n}cz$ -y- $\acute{c}$  (\*się) ('get (sb) into dancing', -i- stem)
  - d. wy- $pr\acute{o}zn$ -i- $\acute{c}$  (tr.) or wy- $pr\acute{o}zn$ -i- $\acute{c}$  (\*sie) ('empty sth/ pee', -i-stem)
  - e. wy-pstryk-a- $\acute{c}$  (tr.) ('finish sth by pressing the button', -aj-stem )
  - f. w-krec-i-c (tr) ('screw sth in') or w-krec-i-c sie ('get oneself invited', -i- stem)

If the identification of  $\Theta$ -roles was unconstrained, i.e. if for instance one argument could check all three  $\Theta$ -roles, as Ramchand (2003) proposes for English arrive, then the lack of lexically prefixed intransitive Theme<sub>high</sub> stems would be surprising.

On the other hand, even this generalization has counterexamples. These are some motion verbs illustrated in (114), as well as verbs in (115).

- (114) a. wy-skocz-y- $\acute{c}$  ('jump out', -y- stem)
  - b.  $wy-pty-nq-\acute{c}$  ('swim out', C-stem)
  - c. w-pelz-nq- $\acute{c}$  ('crawl in', C-stem)
  - d. wy-chodz-i- $c^I$  ('go out', -i- stem)
  - e.  $pod-je\dot{z}d\dot{z}-a-\dot{c}^I$  ('drive under', -aj- stem)

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(115) a. roz-maw-i-a-\acute{c}^I ('converse', -aj- stem) b. roz-my\acute{s}l-a-\acute{c}^I ('ponder',-aj- stem) c. roz-pacz-a-\acute{c}^I ('mourn', -aj- stem) d. wy-brzydz-a-\acute{c}^I ('fuss', -aj- stem)
```

Out of these verbs, (114a) is a strange exception, since it is perfective even in the unprefixed variant; it couldn't possibly be irregular semelfactive since semelfactives in Polish do not take lexical prefixes (cf. section 2.2.6 for discussion). (114bc) are both of a rather undetermined status with respect to their Themes, i.e. it is not impossible that these C-stems are in fact Theme<sub>low</sub>. Finally, all the remaining verbs are in fact Secondary Imperfectives. This is conspicuous in their aspectual values, i.e. although prefixed, they are all imperfective (cf. also the discussion in section 2.2.8 relating to motion verbs), as well as in the vowel in (115a) (i.e. mawiać vs mówić as a result of Derived Imperfective Tensing (cf. Rubach (1984)). Furthermore, the verbs in (115bcd) are all imperfectiva tantum in the sense that neither unprefixed variants, nor prefixed perfective ones exist.

Consequently, if directed motion verbs can be set aside as possible low Theme stems, and hence not requiring licensing by means of the reflexive, then it seems that the only counterexamples to the generalization in (112) are Secondary Imperfective motion verbs. In a certain sense with these verbs the need for licensing of the identification of thematic roles by reflP is nullified. Although I will only offer a speculative solution to this problem, I hope to have convinced the reader that this constitutes a special case.

#### 3.1.6 Conclusion

Summarizing the results of the discussion in section 3.1, I have been trying to motivate the need for the distinction between 'real unaccusative' verbs (i.e. degree achievements characterized by the presence of low Themes) and so-called anticausatives (obligatorily taking a reflexive marker and displaying high Themes). I have argued that (almost) all the relevant (i.e. reflexive, anticausative, inherent, and prefix-induced) uses of the reflexive marker involve high Themes since the semantics of the clitic is identifying the two  $\Theta$ -roles on one DP: an internal and an external role. The only case of the reflexive clitic that low Themes are allowed to take is the prefix-induced one, in which case both of the relevant  $\Theta$ -roles are VP-internal, and even that is very rare. In the above sense, the crucial role of the types of Themes in restricting the verbal argument structure seems to be confirmed. Further repurcussions for the reflexive-marked verbs of the relevant uses concern their mixed status with respect to unaccusativity diagnostics cross-linguistically. Since the sole

argument of all of the reflexive-marked verbs starts out VP-internally, in languages that have diagnostics detecting this property the relevant verbs will come out as unaccusatives, as e.g. in French participial agreement. If a language has a diagnostic for detecting the  $\nu$ -shell, for instance, as is the case with Polish high Theme stems, reflexive-marked verbs will come out as non-unaccusatives in most of the cases (i.e. putting aside the rare low Theme prefix-induced reflexives). Furthermore, certain diagnostics might even distinguish at the intermediate level, e.g. en/ne-cliticization will distinguish between anticausatives and reflexives because in the reflexive derivation the argument will escape the domain relevant for the subextraction, whereas in the anticausative DP movement will take place after the level relevant for subextraction.

The substantiation of the analysis came from the fact that all verbs where the presence of both an external and an internal argument is obvious in virtue of the presence of a Theme<sub>high</sub> and a lexical prefix, require licensing by means of a reflexive clitic in case they are monovalent.

# 3.2 Impersonal Passive

# 3.2.1 Problems with -NO/TO. Overview of literature

In this section I will familiarize the reader with the so-called -NO/ ${\rm TO^{36}}$  construction in Polish, at times called *Impersonal Passive*, and the problems it created for the theory of passives.

-NO/TO is a suffix that occurs on the verb in Impersonal construction. The -n/t- part of this suffix is identical to the morphology appearing on the verb in a regular Periphrastic Passive. A lot of verbs can undergo -NO/TO formation, including intransitive (cf. (117a)), transitive (cf. (117b)), as well as Object Experiencer verbs (cf. (117c))<sup>37</sup>.

- (117) a. Pływa-no. swim-NO 'There was swimming.'
  - b. Czyta-no książkę.
     read-NO book<sub>ACC</sub>
     'There was book reading.'
  - c. Przestrasz-ono /Zadziwi-ono /Zmartwi-ono mnie. frighten-NO /amaze-NO /worry-NO me<sub>ACC</sub> 'There was frightening/amazing/worrying me.'

An interesting thing concerning the transitive verb in (117b-c) is the availability of ACC Case on the object. That particular feature generated the whole strand of research focusing on the question whether the construction at hand is passive or active in nature (cf. inter alia Comrie (1977), Sobin (1985), Borsley (1988), and Siewierska (1988) in favor of the passive treatment, and Lewicki (1966), Przygoda (1976), Dyła (1982), Maling (1993) arguing for the active analysis). Availability of ACC Case under passive morphology is problematic since it seems to be a counterexample to an otherwise very robust descriptive statement concerning inability of verbs not assigning an external Θ-role to assign ACC Case (Burzio's Generalization, cf. Burzio (1986)).

In view of this problem certain researchers felt the need to revise the Universals concerning properties of passives, while others rejected -NO/TO as an 'unpassive'. In what follows, I will in a sense disagree with both of the approaches, and concur with both of them in another sense. Firstly, I will argue that certain restrictions on -NO/TO can only be ascribed to the fact that it includes a 'passive'-like morpheme -n/t-. The restrictions in question

 $<sup>^{36}</sup>$ The allomorphy is conditioned by the phonological shape of the stem -NO/TO is attaching to.

<sup>&</sup>lt;sup>37</sup>To avoid committing myself to any analysis of the relevant construction, I use an abstract gloss 'NO' throughout this section. In chapter 4, however, where a specific analysis of -n/t- is advanced, the gloss will change.

concern -NO/TO diagnosing a certain level of unaccusativity, i.e. being impossible with Theme<sub>low</sub> stems - a property characteristic of regular passives. Generally speaking, however, I will try to reduce the 'unpassive' status of -NO/TO to its syntactic representation. This analysis will crucially involve the notion of lavish insertion, which will derive unification of the relevant morpheme in both Impersonal -NO/TO, as well as Periphrastic Passive. I will argue that in -NO/TO, the Theme spells out a bigger chunk of  $f_{seq}$  than in the regular agreeing Periphrastic Passive<sup>38</sup>, forcing the participial morphology to spell out the subset of its lexical specification. The upshot of the analysis will be that Polish -NO/TO is more comparable (though not identical) to active participles in other (e.g. Germanic) languages than to the regular Periphrastic Passive. In fact, it will turn out to be in a sense 'more active' than the active participles in the Perfect Tense. Once the proper decomposition is arrived at, there is no need to revise the universals concerning Passive formation (given quite a specific and narrow notion of Passive), nor does -NO/TO stand out as a quirk of Polish, unattested in other languages.

Let us then have a look at a representative of the approach that postulates extending the notion 'Passive' to include e.g. Impersonal -NO/TO. Sobin (1985), written in the peak of the GB era, follows an analysis of passives proposed in Chomsky (1981), i.e. Case Absorption. The gist of the analysis is the requirement that deep objects be realized as surface subjects, because a verb with a passive morphology can no longer assign ACC to its object. Thus, Chomsky argues, passives are characterized by the following two properties:

- (118) a.  $\Theta$ -role Absorption: [NP,S] does not receive a theta-role
  - b. Case Absorption: [NP,VP] does not receive Case within VP, for some choice of NP in VP

Faced with the data of the type in (119) (i.e. 'transitive passives' in Ukrainian), Sobin concludes that *Case Absorption* does not hold universally, i.e. in certain languages, as in Ukrainian, it can be optional<sup>39</sup> (cf. also Comrie (1977) and Borsley (1988) for a similar conclusion).

(119) Cerkv-u bul-o zbudova-n-o v 1640 roc'i. church-ACC/FEM was-IMP built-PASS-IMP in 1640 year 'The church was built in 1640.' check source and glosses ()

Similarly, Lappin and Shlonsky (1993) propose to account for these crosslinguistic divergencies in the properties of 'passives' by means of parameters

 $<sup>^{38}</sup>$  The label 'agreeing' Passive refers henceforth to the construction where a morphologically passive verb agrees in  $\phi$ -features with the NOM surface subject.

<sup>&</sup>lt;sup>39</sup>That conclusion does not necessarily commit him to assume a null expletive analysis, as he in fact does - cf. Śpiewak (2000).

restricting case marking and theta-role assignment to the participial morpheme -en to varying degrees. As observed in Emonds (2000), however, the particular parameters 'are ad hoc in form, that is, fit into no general theory of lexical or syntactic variation' (Emonds (2000:193)). I will follow Borer (1984) and Emonds (2000) in identifying the cross-linguistic variation as differences in lexical specification of the participial morphemes in the respective languages (cf. also section 4.1.4 and 4.3 for more discussion). Within these assumptions, the ACC Case 'absorption' will be taken as universal, similarly to external  $\Theta$ -role 'absorption', but the notion of 'Passive' will be narrowed down to embrace only the regular agreeing Periphrastic Passive of the English type. Both of the properties in (118) will be reanalyzed as involving 'abortion' of the functional sequence by an Event Separator. Since in a prototypical agreeing Passive case this 'abortion' takes place at the level where an external argument can be introduced as an optional by-phrase, the usual effect of only implied presence of the external  $\Theta$ -role follows. For the non-prototypical case of -NO/TO, however, I will argue that the abortion happens after the external argument has been introduced, i.e. -NO/TO is an active impersonal sentence with an external argument (cf. also Blevins (2003) for distinguishing between Passives and Impersonals).

#### Passive with unaccusative verbs?

Apart from the ACC Case problem, there is a more significant issue concerning the purported cases of unaccusative verbs under -NO/TO. In other words, (118a) presupposes that Passive can only apply to verbs which have an argument which would potentially receive an external  $\Theta$ -role. Various proposals to capture this particular restriction has been put forward. E.g. in Baker et al. (1989) the passive morpheme -en is taken to be an external argument itself that is assigned an external  $\Theta$ -role as well as Case, deriving both of (119). Yet, Emonds (2000:190-91), referring to Ouhalla (1991), presents arguments against  $\Theta$ -role assignment to the participial morphology. Firstly, advocates of '-en- as an external argument' position fail to observe the essentially adjectival nature of the participle. This is surprising in view of the fact that adjectival elements never receive any  $\theta$ -roles or carry reference. If -en is an inflectional element in I, as proposed in Baker et al. (1989), it seems to be an even more bizarre candidate for receiving a  $\Theta$ -role. Finally, the fact that the same morpheme -en is also present in adjectival passives (e.g. a shaven man) seems to invalidate the proposal equating the relevant morpheme with a bearer of the external  $\Theta$ -role, as there is no implication of the presence of an external argument in adjectival passives.

In Relational Grammar accounts, on the other hand, Passive of unaccusative verbs has been argued to create certain theory-internal problems. Thus, Perlmutter (1978) argues for an 'advancement' analysis of impersonal passives over the 'spontaneous chômage/demotion' analysis. He claims that, since unaccusative verbs must necessarily involve an advancement to 1, the sec-

ond advancement of a dummy element (as in a passive) would violate *The* 1-Advancement Exclusiveness Law, as defined in (120):

(120) The 1-Advancement Exclusiveness Law
In a relational network in which A and B are neighboring 1-arcs
(i.e. 1-arcs with the same tail), if A is an advancee, B is not an advancee arc. (Perlmutter, 1978:167)

That is motivated by the empirical observation that no impersonal passives of unaccusative verbs are possible universally. Perlmutter substantiates the claim with Dutch and Turkish data.

- (121) a. \*In Belfast wordt (er) vaak ontploft. Dutch
  'In Belfast it is frequently exploded.'
  - b. \*Belfastta sik sik infilâk edilir<sup>40</sup>. Turkish
    'In Belfast it is frequently exploded.'

(Perlmutter, 1978:(136)-(137))

In spite of all these efforts, both  $The\ 1$ -Advancement Exclusiveness Law, as well as restricting the passive morpheme to be an external argument remain ad hoc stipulations, and the restriction to external argument suppression is poorly understood<sup>41</sup>. I will try to show in section 3.2.3 that -NO/TO is perfectly well-behaved exactly in this respect, i.e. it does not attach to unaccusative verbs. The reason for that is that it involves exactly the same morpheme as the one in the Periphrastic Passive (i.e. with exactly the same lexical specification).

The point I do want to raise, however, with respect to 'unaccusativity' is the version of Unaccusativity Hypothesis endorsed in Perlmutter (1978) and much subsequent work, including the work on unaccusativity in Polish. The three different forms of the hypothesis are as follows:

- 1. Initial unaccusativity vs. unergativity varies from language to language. There is no way to predict which clauses in a given language will be initially unergative and which initially unaccusative.
- 2. There exist principles which predict initial unergativity or initial unaccusativity for a certain class of initially intransitive clauses in all languages. There exists another class of such clauses whose initial unergativity vs. unaccusativity varies from language to language.

<sup>&</sup>lt;sup>40</sup>In fact, these judgements are challenged by Biktimir (1986), who argues that unaccusative verbs are perfectly fine in Impersonal Passive in Turkish. This point is interesting in view of the fact that Turkish Passive shows all the 'exotic' properties characteristic of Polish -NO/TO. Cf. section 3.2.5 for more discussion.

<sup>&</sup>lt;sup>41</sup>One attempt to derive the relevant generalization in terms of using up two temporal coordinates of a noun to assign a temporal interval to the verb has been presented in Taraldsen (2003).

3. There exist universal principles which predict initial unergativity vs. unaccusativity for all initially intransitive clauses in all languages. Initial unergativity vs. unaccusativity therefore cannot vary from language to language.

(Perlmutter, 1978:161)

Perlmutter evidently endorses the last approach, where by universal principles he means the semantics of the predicates, as opposed to their morphophonological properties ('It is necessary to compare senses or meanings, rather than phonological verb forms.' (Perlmutter, 1978:165)).

Although I agree with the claim that unaccusativity vs unergativity will correlate with meaning difference (since the grammatically relevant meaning under my assumptions is encoded in the structure), the particular implementation of this hypothesis that Perlmutter pursues (i.e. the direction: semantics  $\rightarrow$  verb class) seems to me to be misguided. It is not possible to base any conclusions on notions so language- and speaker-dependent as vaguely understood 'senses or meanings'.

Let us see how this approach fares in Polish on the basis of a sample of verbs which are translations of Perlmutter's unaccusative predicates<sup>42</sup>. Let us take the verb 'explode' - an example Perlmutter showed to be unaccusative in both Dutch and Turkish. The Polish equivalent might be  $wybuchnq\acute{c}$  and according to the expectations it does not undergo -NO/TO formation:

(122) \*Wtedy wybuchnię-to ze złości. then explode-NO from anger intended: 'Then someone exploded from anger.'

However, there is another verb, a direct borrowing  $eksplodowa\acute{c}$ , and Google searches do return examples of this verb under -NO/TO formation:

(123) ...pierwszą taką bombę explodowa-no na poligonie... first such bomb $_{ACC}$  explode-NO at range '...the first such bomb was exploded in the range...'

Although this is a transitive verb, intransitive uses can also be constructed, given appropriate context:

(124) W sytuacjach zbyt wielkiego napięcia zawsze w końcu eksplodowa-no in situations too big tension always in end explode-NO jak gejzer.

as gey-ser.

<sup>&</sup>lt;sup>42</sup>I only pick up the verbs whose initial argument is a Patient since they might still be considered unaccusative today. For other verbs that Perlmutter includes, e.g. emission verbs, it has been shown for a variety of languages that they behave as unergatives (cf. Levin and Rappaport (1995))

'In the situations of too big tension people always exploded like geysers in the end.'

Let us try another prototypical unaccusative concept, i.e. 'fall'. The Polish equivalent paść predictably resists -NO/TO formation:

(125) \*Padnię-to na twarz.
fall-NO at face
intended: 'Someone fell face-downwards.'

However, a Secondary Imperfective of the same verb, namely  $pada\acute{c}$  is perfectly fine under -NO/TO formation:

(126) Za każdym razem pada-no na twarz. at each time fall-NO at face 'Someone was falling face-downwards each time.'

Finally, let us try 'melt'. There are two possible translations into Polish:  $topnie\acute{c}$  and  $topi\acute{c}$  sie, where the former does not undergo Impersonal Passive (127a), whereas the latter is perfect in this construction (127b)<sup>43</sup>.

- (127) a. \*Wtopnię-to w tłum.

  melt-NO into crowd
  intended: 'Someone was melting with the crowd.'
  - b. Wtopio-no się w tłum.melt-NO refl into crowd'Someone melted with the crowd.'

When faced with these results one is at a loss with respect to either the Voice status of the construction under examination (i.e. the opposition passive vs active), or else the split intransitivity status of the relevant verbs. There is no way to know which are the right equivalents to consider simply because most of the verbal roots in Polish have several morphologically distinct variants. Thus, depending on the arbitrary choice of translations (but mostly the choice biased by the desired aims), different accounts either recognize the problem of unaccusative passives (as in Timberlake (1982), Nunes (1994), Wang (1994)) or else choose not to raise the issue at all. To stress the point again, the purpose of the above discussion is not to show that the hope of having semantic universals relevant for Unnacusativity Hypothesis in 3 should be abandoned. In fact, given the parallel syntax-semantics machinery, one expects to see semantic regularities within Split-Intransitivity domain. This is exactly what the event decomposition achieves. In other words, the semantic content of the functional heads present with a specific stem is responsible for the semantic interpretation of the arguments present

<sup>&</sup>lt;sup>43</sup>In (127) I construct a context that might be predicated of a human subject - a restriction on Impersonal -NO/TO that will be discussed below.

with these stems. What I wish to emphasize, however, is that subtle semantic nuances are lost in translation. Therefore, it is the morphological shape of a given verbal form that one has to consider in a language that has some morphological means in order to establish the set of unaccusative verbs. In another language, which might not encode its unaccusativity diagnostics by morphological means, independent diagnostics have to be discovered (as e.g. causativization in English<sup>44</sup>). I will try to show in section 3.2.3 that -NO/TO is a well-behaved passive in the sense that it never applies to unaccusative verbs once it is understood which verbs are true unaccusatives in Polish<sup>45</sup>.

## Subject position

An orthogonal problem, which however seems to me to contribute to the active or passive 'feel' of the construction is the issue of the Subject position. This question is central to the investigations in Spiewak (2000) and is summarized by him (following Rizzi (1986)) as follows:

- 1. the participant in question is saturated at a pre-syntactic (lexical) level; consequently it is not projected into the syntax proper (i.e. the relevant position is missing);
- 2. the relevant projection is created in the syntax, yet the slot is obligatorily filled with a phonetically null element. (Śpiewak, 2000:65-6)

Śpiewak opts for the first position. This position, however, is not conceptually appealing under the present assumptions since it postulates a separate presyntactic module with its own rules. Since I assume that external arguments are added derivationally (cf. 1.5), it cannot possibly be the case that they are 'suppressed' in the lexicon. Furthermore, Śpiewak himself points out that his account of Nominative-less constructions is only compatible with a view of grammar that recognizes a distinction between syntactic and semantic aspects of grammar ((Śpiewak, 2000:26)). Since I hope to adduce evidence in favor of the parallel syntactico-semantic machinery, my account will most obviously stand in opposition to the Construction Grammar account  $\hat{a}$  la Śpiewak and for the same reason I will not review it in detail.

<sup>&</sup>lt;sup>44</sup>Yet, as has been indicated in section 1.1, I do not believe that lack of causativization is sufficient to indicate non-unaccusative status. This is particularly evident from the Polish perspective, where the morphology is clearly that of an unaccusative verb (i.e. the low Theme stem), but the causative variant is lacking for many verbs. Ideally, lack of causativization should correlate with other unaccusativity diagnostics.

<sup>&</sup>lt;sup>45</sup>The reader will recall that the notion 'unaccusative' is only motivated by the ease of exposition, since I advocated in section 3 to decompose unaccusativity, where each level in the derivation corresponds to some subgroup of unaccusative verbs, whether a languages has a diagnostic for this level or not. For Polish, most of the tests seem to distinguish between the absence vs the presence of the light verb system, and it is in this sense that I use the notion 'unaccusativity' in this work.

Quite apart from the question whether there exist lexical operations suppressing the external argument, the problem of the 'null DP' remains even on a purely syntactic account. Thus, embracing the Kratzerian view on the way an external argument is introduced (i.e. by means of a functional projection VoiceP or initiatorP in the present terminology), the regular Periphrastic Passive might correspond to a functional projection Voice  $P_{ass}$  with unprojected Specifier - a syntactic reformulation of the position in 1. I will argue in section 3.2.3, however, that Impersonal Passive is different from the agreeing Periphrastic Passive in this respect, i.e. the relevant position is created in the syntax and filled with a null element (position 2). Moreover, this null element is not 'expletive' in any sense: instead it is a well-known proarb (a conclusion concurrent with Lavine's (2000)). I suggest that this fact contributes to the 'active feel' of -NO/TO, as well as accounts for a lot of properties differentiating it from the regular Periphrastic Passive. In the next section I will critically review one of the 'active' analysis of -NO/TO, namely the account proposed in Lavine (2000). The choice is motivated by the fact that it is a relatively recent and detailed account which takes into consideration most of the properties of -NO/TO amassed during the long research tradition.

## 3.2.2 Lavine on -NO/TO

An interesting and novel account of the -NO/TO construction in Polish<sup>46</sup> is proposed in Lavine (2000). The major advantage of the proposal over the previous accounts is the fact that his so-called AUX HYPOTHESIS derives the restriction to Past Tense interpretation, as well as, purportedly, incompatibility with any Auxiliaries<sup>47</sup>. The first restriction can be inferred from all the English glosses I provided in the examples in section 3.2.1. The latter restriction is illustrated in (128):

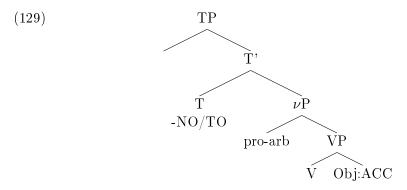
(128) \*Było/Jest/Będzie czyta-no tę książkę.  $was_{3sg.neut}/is_{3sg.neut}/will.be_{3sg.neut}$  read-NO this<sub>ACC</sub> book<sub>ACC</sub> intended:'This book was/ is/ will be read.'

The gist of the AUX HYPOTHESIS is that Polish -NO/TO ceased to be a passive participial morpheme and has been instead reanalysed as a functional

 $<sup>^{46}</sup>$ Lavine (2000) deals with the equivalents of this morpheme in the four Slavic languages: Polish, Ukrainian, North Russian, and Lithuanian. In the present work I concentrate on the Polish part with occasional diversions to the Ukrainian data for comparison, although I believe the cross-linguistic differences could be accounted for under the present assumptions relating to the fine-grained  $f_{seq}$  and different lexical specification of the ES morpheme in the aforementioned languages.

<sup>&</sup>lt;sup>47</sup>Cf. however section 4.2 for examples of -NO/TO suffixed to Auxiliaries, which seems to invalidate Lavine's AUX hypothesis unless multiple Auxiliary-related projections are assumed (specifically example (58a)). If this is the case, in turn, the AUX hypothesis does not derive incompatibility with other Auxiliaries to begin with.

auxiliary-like element 'abstractly' heading T (or Infl)<sup>48</sup>. Thus, the structure that he proposes for Polish -NO/TO is in (129):



Crucially, (129) is only one of the possible structural representations. Since Lavine (2000) argues that  $-\mathrm{NO/TO}$  is possible with unaccusatives, that means in the other scenario  $pro_{arb}$  needs to be generated VP-internally. He claims that  $-\mathrm{NO/TO}$  is a non-decomposable marker of a non-agreeing T, as opposed to Ukrainian  $-\mathrm{NO/TO}$ , which consists of a derivational passive participial morpheme  $-\mathrm{n/t-}$  and a derivational marker of nonagreement (sic!). The presence of a full-fledged, though covert,  $pro_{arb}$  allows Lavine to take sides with respect to the taxonomic issue, i.e. active vs passive status of  $-\mathrm{NO/TO}$ . Since the external argument is present in (129), Lavine concludes that  $-\mathrm{NO/TO}$  is active. It is puzzling though that he should take a stand with respect to this typological issue in view of the following statement:

In a minimalist-style analysis there can be no Passive as a primitive in the theory. Under such an analysis, we would expect the properties that generally cluster together in passives to be potentially independent and, thus, de-coupled and related to specific morphosyntactic features which themselves are the primitives in our theory.

(Lavine, 2000:chapter3, p.3)

I agree with this statement fully and will try to show in what follows that the answer to the taxonomic question is really immaterial once the phenomenon is given an appropriate analysis. There are certain similarities between - NO/TO and Periphrastic Passive that cannot be accounted for under such a divergent treatment as the two receive on Lavine's story (i.e. Tense Auxiliary vs  $Voice_{Pass}$ ). It is true that Periphrastic Passive shows more restrictions with respect to the range of predicates it can apply to. Yet, this is due to the fact that for some reason agreeing Periphrastic Passive is restricted

<sup>&</sup>lt;sup>48</sup>Lavine is forced to follow Baker (1988) in assuming an 'abstract' merger into a FP due to the particular assumptions concerning the verb entering a derivation fully inflected (cf. Chomsky (1993) and Chomsky (1995a).)

to transitive verbs<sup>49</sup>. I will argue in section 4.3 that due to the lack of Subject in a Periphrastic Passive, it is the object that has to raise to satisfy the Subject-of-predication requirement of the participial projection. If there isn't any object, the result is ungrammaticality.

On the other hand, the main argument in Lavine (2000) (see also Maling (1993)) in favor of the active analysis of -NO/TO, i.e. the possibility of attaching to unaccusative verbs, will be shown to be inaccurate and based on a series of incorrect assumptions concerning particular types of predicates. Let me now examine the particular assumptions of Lavine's one by one.

# 1. $\mathbf{pro}_{arb}$

Since -NO/TO in Polish is active and does introduce an external argument on Lavine's story, he needs to explain the effect of 'phonological valency reduction' (cf. section 1.6). The specific claim that is put forward in that connection is that the ban on having a full-fledged overt DP argument is due to lack of inflectional features on the verb-stem. That is what forces the appearance of pro<sub>arb</sub>, according to Lavine, since a DP with a full set of  $\phi$  features does not have a way to check them against T. There are certain essential technicalities involved in that explanation that seem to me to be problematic. For instance, since  $\phi$ features are interpretable on a DP, Lavine needs to assume that it's uninterpretable T that an overt DP is not able to check. To the extent, however, that I see the potential difference in  $\phi$  feature specification between overt and covert arguments, it remains a mystery to me why the two should differ with respect to Tense features. Abstracting away from the technicalities, however, Lavine's proposal amounts to postulating a deficient T of sorts for the Impersonal -NO/TO in Polish. It is deficient due to lack of inflection, where by the lack of inflection the author probably means Agreement. Yet, in a more updated framework of Bare Phrase Structure, where Agreement is epiphenomenal or stems from an Agree relation holding between the Probe and the Goal (as in Chomsky (1999)<sup>50</sup>), it is not clear how the lack of Agreement should ever be the reason why a head is defective. The deficient nature of T is even more difficult to understand in view of the fact that it clearly has an interpretation, namely Past. In section 4.2 I will argue that the obligatorily covert nature of the external argument in -NO/TO is due

 $<sup>^{49}</sup>$ In other words, if a given stem can never be used transitively - quite a rare case due to the possibility to add lexical prefixes - then the agreeing Passive structure is out. This happens, e.g. in the case of SIs of otherwise Theme<sub>low</sub> stems, e.g.  $u\text{-}mier\text{-}a\text{-}\acute{c}$  (pref-die-Th.SI-inf; 'to be dying'), \*u-mier-a-n-y (pref-die-Th.SI-PRT-3sg.m). In section 4.3.2 I will argue that this is because with these verbs the argument is merged directly in Spec, $\nu$ P and hence does not qualify to satisfy the Predication Condition.

 $<sup>^{50}</sup>$ Cf. also Julien (2002b) for the relevant discussion to the effect that universally Agreement is not a head in  $f_{seq}$ . A similar claim, although in a different set of assumptions is made in Emonds (2000), where inflectional morphology is inserted only at PF.

to the fact that Polish does not possess an auxiliary HAVE, and that is why its active participle can only exceptionally occur whenever BE Auxiliary is allowed.

To be sure, the obligatory [+sentient] interpretation of the missing argument in -NO/TO (cf. Rozwadowska (1992)) does not follow from anything in Lavine's theory, unless it is taken to stem from the specification of  $pro_{arb}$  (but Lavine does not make this suggestion).

# 2. Restrictions on -NO/TO

The AUX HYPOTHESIS predicts that all predicates should be able to undergo -NO/TO formation. The only restriction, according to Lavine, is the ability to take a sentient/human participant. This restriction is taken to exclude -NO/TO unaccusative verbs like \*kipia-no (boil-NO) and \*zwiędnię-to (from (Wolińska, 1978:67)). Note, however, that this restriction can easily be overriden in the sense that a verb like kipieć ('boil') can be coerced into a reading where it means 'go mad' by metaphorical extension, as in (130):

(130) W takich momentach zawsze kipia-no z gniewu. in such moments always boil-NO from anger 'In such moments one always went mad with anger.'

Similarly, the examples that Lavine adds to Wolińska's, \*szczekano (bark-NO) and \*ćwierkano (chirp-NO) easily come up on Google:

(131) ...byłem oburzony, że szczeka-no, ujada-no na Jasienicę, was indignant that bark-NO, yap-NO at Jasienica, Kisielewskiego...

Kisielewski...

'I was indignant that people were barking at Jasienica, Kisielewski...'

I follow Borer (2005) in emphasizing the necessity to distinguish between what is truly ungrammatical vs. what is just odd for semantico-pragmatic reasons. The former will be rejected by the computational system, whereas for the latter speakers will differ with respect to how much coercion they allow. Thus, certain speakers won't be able to coerce certain predicates and those might reject (130), whereas others will invent a scenario in which the sentient interpretation of the covert argument in (130) holds. The fact that -NO/TO is subject to conflicting judgements in the literature is exactly due to this problem. This is also the reason why the judgement can change even when the same predicate is used with a different prefix. Compare (132) with a purely perfectivizing prefix z- vis à vis (133) with an agentive prefix.

(132) #Z-większo-no się z zaskakującą prędkością. pref-bigger-NO ref with surprising pace intended: 'One increased at a surprising pace.'

In a fairy-tale about dwarfs that have an elixir that enables them to increase in size:

(133) W pół godziny po-wiekszo-no się do rozmiarów ludzkich. in half hour pref-bigger refl to sizes human 'In half an hour someone grew into human size.'

This also bears on the issue of 'semantic unaccusativity' that I raised in section 3.2.1. How can one establish the unaccusativity status of the predicate on the basis of its meaning if both z-większyć się and po-większyć się get translated into English as 'increase'? On the whole, it seems that Lavine in his choice of 'semantic unaccusatives' chose to follow all his predecessors with the result that the set of unaccusative verbs is quite arbitrary.

Nevertheless, there is a group of predicates which are simply ungrammatical under -NO/TO, and which Lavine seems to mishandle. Their different status is confirmed by the fact that with some of them it is even hard to come up with a right morphological shape for the -NO/TO construction. I provide some examples in (134). To dismiss Lavine's only case where -NO/TO is ungrammatical (i.e. nonsentient DP), note that all of the predicates in (134) easily take sentient/human Subjects.

- (134) a. \*By-to w operze przynajmniej raz w miesiącu.
  be-NO in opera at least once in month
  intended:'One was at the opera at least once a month.'
  - b. \*Ucieknię-to z więzienia. escape-NO from prison intended:'Someone escaped from prison.'
  - c. \*Pójdnię-to?/Pójdzo-no? już tutaj do szkoły. go-NO already here to school intended: 'Someone has already gone to school here.'
  - d. \*Mala-no z dnia na dzień. small-NO from day at day intended: Someone was getting smaller every day.'
  - e. \*Dziecinnia-no coraz szybciej.
    childish-NO the.more quicker
    intended:'Someone was getting childish quicker and quicker.'

I will argue in section 4.3 that the non-existence of these clearly unaccusative examples is exactly the feature that approximates -NO/TO to the Periphrastic Passive in ways to be made precise.

### 3. Perfective unaccusatives

Lavine is obviously aware that there are predicates that are ungrammatical under -NO/TO. He calls them 'perfective unaccusatives' and chooses to ascribe their ungrammaticality to the purported incompatibility with a generic interpretation of the subject. In other words, the claim is that Impersonal -NO/TO requires generic interpretation and 'perfective unaccusatives' are incompatible with it. It is difficult to see which examples he has in mind since he does not illustrate this case. Assuming, however, that he includes Object Experiencer, as well as Reflexive Psych verbs, both of which he takes to be unaccusatives (see the point below), note that his observation does not hold. (135) shows perfective uses of those two types of predicates in impersonal -NO/TO construction:

- (135) a. Za-wstydzo-no się. pref-ashamed-NO refl 'Someone got ashamed.'
  - Z-denerwowa-no go.
     pref-irritate-NO him<sub>ACC</sub>
     'Someone irritated him.'

The explanation along the lack of 'generic interpretation' lines is untenable in view of the existential reading of the sentences in (135). The same point can be shown also with the so-called 'inherently reflexive' (so-called *Reflexiva tantum*) verbs, which by Lavine's classification would probably end up in the semantically unaccusative group as well:

- (136) a. Potknię-to się. stumble-NO refl
  'Someone has stumbled.'
  - b. U-da-no się do Warszawy. pref-give-NO refl to Warsaw 'Someone left for Warsaw.'

Since it is not clear why only unaccusative perfective verbs should be disallowed on the basis of the lack of generic interpretation, the same type of explanation is being sought within unergative domain. Thus, Lavine tries to show that unergative intransitives are also subject to the ban on perfectives in the -NO/TO construction. However, the examples that he provides are clearly either not perfective or else acceptable:

(137) ??biegnię-to/??płynię-to/??skoczono run-NO/swim-NO/jump-NO

((Lavine, 2000:(31b)), his judgements)

Firstly, biec ('run'-directed motion) and ptynąć ('swim'-directed motion) are imperfective by all traditional tests (e.g. compatibility with phasal verbs, present tense interpretation, etc.). Secondly, Google searches return multiple examples of ptynię-to and skoczo-no. As a matter of fact, there are even more examples when the last two verbs are prefixed (i.e. perfectivized), contrary to Lavine's claim.

Finally, note that the generic vs episodic distinction cannot be the crucial factor determining their (un)acceptability under -NO/TO. This is evident when one considers cases of 'real' unaccusative verbs in imperfective variants in (134a), (134d), and (134e). In spite of the availability of generic readings (due to imperfective nature), these predicates are ungrammatical under -NO/TO formation.

# 4. Case assignment

Since Lavine assumes that  $\nu P$  is absent from Object Experiencer verbs, he is forced to diverge from Chomsky's assumptions concerning ACC Case checking. Thus, he assumes that ACC Case is checked at Merge by V. The key assumption which is meant to do away with the notion of 'case absorption' and explain Burzio's Generalization is the fact that a single DP cannot check both ACC Case and Agreement features of V, although ACC Case is taken to be generally available with participial morphology. Thus, when a verb has agreement features, it can Merge with NOM DP and check its agreement  $^{51}$ . The result is Ukrainian or Polish Periphrastic Agreeing Passive. The second scenario involves V merging with ACC DP (i.e. checking Case first). If the verb happens to have agreement features, they will remain unchecked and result in a crash. If, however, as in the case of -NO/TO, the verb has no agreement features, the derivation will exceptionally converge.

Now, these mechanics of Case and agreement checking are probably intended to be universal. If so, however, then I do not see what rules out structures with unaccusative verbs and a single DP under nonagreeing -NO/ $\mathrm{TO}$ :

<sup>&</sup>lt;sup>51</sup>The exact mechanism for NOM Case assignment is not explained. I suspect Lavine assumes that T checks NOM on a DP later on in a derivation. If Case checking in a local configuration is to be kept the same as for ACC, then that would imply that a DP actually moves to Spec,TP for Case reasons, and not EPP - an assumption which Lavine tries to argue against.

(138) \*Umiera-no ludzi.  $die_{imp}$ -NO people<sub>ACC</sub> intended: People have been dying.

Note that all other things are equal, i.e. the fact that the verb is unaccusative (according to Lavine) should not matter given the AUX HYPOTHESIS, the interpretation is generic, the participant is [+sentient]. Under Lavine's assumptions there is no reason why the verb should not just check ACC on a DP at Merge and the derivation should converge. One potential reason for the ungrammaticality that might be invoked is the lack of pro-arb to check EPP<sup>52</sup>. Yet, V-initial -NO/TO orders in Polish are perfectly fine. Besides, there is no reason why ACC DP could not check EPP, exploiting the Ukrainian strategy for EPP checking. Yet, a DP<sub>ACC</sub>-initial variant of (138) is equally ungrammatical. Under Lavine's assumptions the potential explanation might be inability of the DP to check its  $\phi$ -features against a 'deficient' T. Yet, this assumption seems unmotivated (consider my remark above with respect to the necessity of having pro-arb) in view of the fact that  $\phi$ features are perfectly interpretable on a DP. If the relevant features are uninterpretable T on a DP (as Lavine seems to assume), then the question arises in which circumstances does a DP have uT features? And how do they get checked e.g. in root nominalizations of the type in (139)?

(139) Marka opis zachodu słońca. Marek $_{GEN}$  description sunset $_{GEN}$  sun $_{GEN}$  'Marek's description of the sunset.'

### 5. Object Experiencer verbs

Lavine assumes Belletti and Rizzi's (1988) analysis of Object Experiencer verbs of the surprise type as unaccusatives with two internal arguments. That analysis is supposed to strengthen the contrast between the Impersonal -NO/TO construction and Periphrastic Passive and in this way confirm the active status of the former. It furthermore forces Lavine to assume that an internal argument can also be realized by pro-arb and the sentience requirement can also hold of this position. This might not be so problematic if it turns out that pro-arb is universally [+sentient]. Yet, it does not follow from anything in the theory and it seems to me that a more appealing solution presents it-

 $<sup>^{52}</sup>$ This assumption made by Lavine for Polish -NO/TO is problematic in itself. If EPP is the kind of feature that can be satisfied by any kind of constituent with a PF matrix (cf. Holmberg (2000)), it is not clear how a covert element can check this feature. For a more updated version of EPP checking cf. *inter alia* Alexiadou and Anagnostopoulou (1998).

self, whereby the sentience of *pro-arb* is a requirement on a particular syntactic position and is independently motivated. I will elaborate on the details of the solution in section 4.2.

Thus, Lavine claims that verbs of the kind in (140) are not agentive.

(140) Dziennikarze zmartwili Jana wiadomościami z Polski. journalists $_{NOM}$  upset  $\operatorname{Jan}_{ACC}$  news $_{INSTR}$  from Poland 'The journalists upset Jan with the news from Poland.'

They are in fact ambiguous between a stative and an agentive reading, with inanimate subjects necessarily inducing a stative reading<sup>53</sup>. It seems that stative verbs in general resist Passivization. In many cases, however, Passive of statives can be coerced on condition agentive readings can be imposed. Yet, with verbs which never allow agentive readings, Passive is ungrammatical:

- (141) a. Maria cierpiała męki. Maria suffered pains
  - b. \*Męki były cierpia-n-e przez Mariępains were suffer-PASS-pl.nonvir by Maria

Therefore, checking the passivizing possibility of the predicate in (140) using an inanimate DP in a by-phrase is uninformative, since this DP will always impose a stative reading:

(142) \*Jan został zmartwiony przez złą wiadomość.

Jan become<sub>3masc.pst</sub> upset by bad news intended: 'Jan was saddened by the bad news.'

(Lavine, 2000:37)

Lavine claims (referring to (Holvoet, 1991:63)) that Object Experiencer verbs of the relevant type do not passivize. Yet, Google searches return examples of passive Object Experiencer verbs, as e.g. in (143). Note that it cannot be argued that these are adjectival passives since they contain an eventive auxiliary  $zosta\acute{c}$  ('become')<sup>54</sup>, as well as a by-phrase in (143a).

(143) a. ...tak został rozbawiony przez brać olimpijska... thus became amused by crew olimpic

<sup>&</sup>lt;sup>53</sup>In fact, Lavine later on accepts the ambiguity, but only for some of the psych-verbs. <sup>54</sup>Cf. the discussion in section 1.1 on the relation between eventivity and the type of Auxiliary.

b. Duch Boży został zasmucony ghost godly became saddened

Since there is no special thematic suffix reserved for stative verbs in Polish, i.e. like agentive verbs they may take high Themes -i/y- (e.g. dziw- $i-\acute{c}$  ('amaze')) or -aj- (e.g.  $obra\dot{z}$ - $a-\acute{c}$  ('insult')), we expect this group of predicates to be oscillating between stative and agentive readings, and the marginality of Periphrastic Passives to be due to a difficulty of imposing an agentive reading (on coercion of statives into activities in Spanish cf. also Torrego (1998)).

To emphasize the contrast with Impersonal -NO/TO, Lavine gives examples of perfectly acceptable -NO/TO with Object Experiencer verbs, trying to show that they differ from canonical Passives. Yet, as observed in Rozwadowska (1992), Object Experiencer verbs under -NO/TO also allow only agentive readings. Thus, they get degraded whenever there is some other inanimate equivalent to Pesetsky's Subject Matter (1995) (e.g. a property of the covert argument), which induces a [-sentient] reading (i.e. implied Cause, as opposed to Agent). If in turn the implied argument is interpreted as non-sentient, the only possible reading is stative, as nonsentient entities are not able to act agentively. This is illustrated in (144).

(144) ??Zdziwio-no mnie swoim wyglądem. surprise-NO me<sub>ACC</sub> poss-refl appearance 'I was surprised with someone's appearance.'

Obviously, the sets of stative predicates and the predicates which take a [-sentient] argument are not exactly coextensive. Stative verbs with [+sentient] participants seem to be acceptable under -NO/TO, though the judgements in the literature are conflicting (e.g. leżano (lie-NO) is accepted by Rozwadowska (1992) but rejected by Cetnarowska (2002)<sup>55</sup>) Assuming they are grammatical under -NO/TO, it seems the criterion crucial for the construction in question is [+/-sentience] rather than [+/-stative]. Still, at least one part of the implication holds: if [-sentient] then [+stative].

If anything then, the comparison of canonical passive and -NO/TO with Object Experiencer verbs shows similarities between the two, rather than differences, as Lavine would have it. Agreeing Periphrastic Passive of Object Experiencer verbs is allowed on condition the causation is interpreted agentively. Similarly for -NO/TO, the reading where the external argument is consciously involved in the event is the only one possible in this construction.

<sup>&</sup>lt;sup>55</sup>I take Cetnarowska's (ibid.) reluctance to accept it as being due to the fact that her context favors the inanimate reading of the covert Subject.

# 6. Compatibility with a reflexive marker

A 'derived unaccusative' analysis is also assumed for Reflexive Psychverbs (as well as Anticausatives). I illustrate the fact that they are both grammatical under -NO/TO in (145):

- (145) a. Zdziwio-no się jego zachowaniem. surprise-NO refl his $_{INSTR}$  behavior $_{INSTR}$  'People were surprised at his behavior.'
  - b. Przewróco-no się.
     turn-NO refl
     'Someone collapsed.'

Similarly to Object Experiencer verbs, I submit that an unaccusative analysis of these verbs is untenable. In fact, I have shown in section 3.1 that the derivation of anticausatives and all other types of reflexive-marked verbs (i) involves a high Theme (in (145) the Theme is -i- in both cases) and hence implies the presence of  $\nu$ , (ii) involves a DP, which, although generated VP-internally, also checks an external argument's  $\Theta$ -role. Now, recall from section 3.1 that due to the semantics assumed for the reflexive marker, to wit, identifying two  $\Theta$ -roles, the implication is that with all reflexive-marked verbs there will always be an external argument present since this is the other  $\Theta$ -role that gets identified by the reflexive marker. That means that the problem of unaccusative verbs under Impersonal -NO/TO has been dispensed with for (145), and at least in this sense there is no need to assign some exceptional status to the participial morphology.

Lavine considers compatibility of Polish -NO/TO with a reflexive marker vis à vis the incompatibility of it with Ukrainian -NO/TO as an argument confirming the different status of -NO/TO in the two languages (i.e. Aux in Polish vs Voice alternation in Ukrainian). Thus, he resorts to Marantz's (1984:128) ban on vacuous affixation:

(146) The No Vacuous Affixation Principle For a certain class of features F, an [alpha  $F_i$ ] affix may attach only to a [-alpha  $F_i$ ] root.

Specifically, Lavine claims that Ukrainian -sja attaching to a passive -NO/TO is ruled out as an attempt to detransitivize a verb which is already [-TRANS]. Yet, he relegates to a footnote (fn 9, p.7 and fn 60, p.48) the information that Ukrainian reflexive -sja is also incompatible with nominalizations (which, incidentally, display exactly the same morpheme -n/t-), again in contrast to Polish nominalizations (cf. section 4.3). He dismisses this point as a PF suppression. Now, it is

true that PF seems to display sensitivity to combinations of certain morphemes  $^{56}$ , but these are normally homophonous morphemes. As far as I can see there is no reason to discriminate phonologically against -NO/TO + -sja.

(146) would not help to account for nominalizations since they are at least potentially [+TRANS]<sup>57</sup>, so there is no reason why the reflexive should not be able to attach to it. Still, (147) is ungrammatical in Ukrainian.

(147) \*zdyvuva-nnja-sja surprise-NOM-refl intended: 'getting surprised' Ukrainian

This stands in a striking contrast to Polish nominalizations which are perfect with the reflexive marker.

(148) dziwie-nie się surprise-NOM refl 'getting surprised'

More generally speaking, it is questionable to define the function of the reflexive marker as detransitivization in view of the data that I analyse in chapter 5, namely the so-called Dative Reflexive Construction illustrated in (149).

(149) Trudno mi się oglądało ten film. hard  $\text{me}_{DAT}$  refl watch $_{pst.3sg.n}$  this $_{ACC}$  movie $_{ACC}$  'It was hard for me to watch this movie.'

Although there is a reflexive clitic present in (149), the valency of the predicate remains as usual, i.e. the object in ACC Case is retained.

Thus, it seems to me that the different lexical specification of the participial morpheme -n/t- in the respective languages is better equipped to handle the cross-linguistic difference in the cooccurrence possibilities than Marantz's 'Vacuous dethematization'. In section 4.2 I will spell-out the details of that proposal to the effect that Polish is probably the only Slavic language in which -n/t- can be up-squeezed by the thematic vowel to such a high level as to allow the reflexive marker to be embedded.

<sup>&</sup>lt;sup>56</sup>Though it requires further investigation whether the effects are really PF in nature. <sup>57</sup>Unless the feature [TRANS] is relativized to the presence of ACC object. The object

of nominalizations bears GEN Case - cf. chapter 4 for the relevant discussion.

It seems to me Lavine's proposal is in many respects on the right track. These include: the presence of a covert external argument  $pro_{arb}$ , as well as separation of Ukrainian -NO/TO from the Polish one. I hope to have shown, however, that the AUX HYPOTHESIS cannot be seriously entertained for -NO/TO in Polish. In what follows I will try to develop a unified account of Agreeing Periphrastic Passive and Impersonal -NO/TO, relating both of them to an Event separating morpheme -n/t- involved also in a productive nominalization in -nie/cie, building on the ideas in Taraldsen (2003). Thus, the difference between the three will not be due to a complete reanalysis of the semantics/syntax of -n/t-, but rather derived from different extents to which the relevant morpheme is up-squeezed by the Theme, crucially relying on the lavish insertion of -n/t. This research objective will be spread throughout the two remaining chapters (i.e. 4 and 5). However, since the purpose of the present, as well as the next section is to substantiate the claim that types of Themes correlate with certain split-intransitivity diagnostics, in the next section I focus exclusively on this issue. I will try to show that Impersonal -NO/TO construction is identical to the regular Periphrastic Passive in attaching only to non-unaccusative verbs (i.e. high Theme stems).

# 3.2.3 -NO/TO and conjugation classes

The purpose of the present section is to show that the Impersonal -NO/TO construction yields further evidence for the event decomposition proposed in section 1.1. This, in turn, will hopefully open grounds for a new analysis of -NO/TO to be proposed in section 4.2.

Let us first look at the predicates which are ungrammatical under -NO/TO. These are repeated as (150) below, this time with the Themes marked whenever distinguishable:

- (150) a. \*By-to w operze przynajmniej raz w miesiącu.
  be-NO in opera at.least once in month
  intended: 'Someone was at the opera at least once a month.'
  - b. \*U-ciek-nię-to z więzienia. pref-leak-n-NO from prison intended: 'Someone escaped from prison.'
  - c. \*Pójdnię-to?/Pójdzo-no? już tutaj do szkoły. go-NO already here to school intended: 'Someone has already gone to school here.'
  - d. \*Mal-a-no z dnia na dzień. small-ej-NO from day at day intended: Someone was getting smaller every day.
  - e. \*Dziecinni-a-no coraz szybciej.
    childish-ej-NO the.more quicker
    intended:'Someone was getting childish quicker and quicker.'

Suppose that -NO/TO is a well-behaved Passive in the sense that it does not apply to unaccusative verbs. Then, given that all the verbs in (150) belong either to low Theme conjugation classes or else to classes where the status of the conjugation marker is undetermined, we have a ready explanation for the ungrammaticality of (150). The existence of the latter type of stems has to be acknowledged: the reader will recall that I said there were verbal stems whose status was undetermined, as well as occasionally stems can be themeless. To be more explicit: the verbs in (150a) and (150c) are irregular, so their status with respect to unaccusativity cannot be decided on the basis of the Theme; (150b) contains a low inchoative -n- Theme, whereas the stems in (150d-e) both belong to a low -ej- Theme class. Since I have argued in chapter 2 that Theme<sub>low</sub> stems lexicalize simplex events lacking  $\nu$ -shell, it follows that they should correlate with the relevant level of unaccusativity. For the themeless or undetermined stems in (150a) and (150c), it means that they also receive a Theme<sub>low</sub> analysis, as they behave similarly with respect to the relevant test.

The other side of the coin is that all the high Theme stems, including the semelfactive -n-, will form perfect -NO/TO Impersonals, other things being equal<sup>58</sup>. This prediction is confirmed as well:

- (151) a. Czyt-**a**-no książkę. read-**a j**-NO book $_{ACC}$ 
  - b. Pływ-**a**-no. swim-**aj**-NO
  - c. Kusz- $\varnothing$ -ono go. tempt-**i**-NO  $\lim_{ACC}$
  - d. Bębn-i-ono. drum-i-NO
  - e. Kop-**nię**-to go. kick-**sem**-NO him<sub>ACC</sub>
  - f. Mrug-**nię**-to do niego. wink-**sem**-NO to him

Furthermore, recall from section 2.2.8 (cf. Table 2.6) that non-directed motion verbs always display high Theme stems. Consequently, the prediction

<sup>&</sup>lt;sup>58</sup>All of the predictions in this section are meant to abstract away from any potential independent reasons excluding Passivization, e.g. stativity. Since, however, none of the clearly stative verbs in Polish (e.g. cierpieć ('suffer'), widzieć ('see'), słyszeć ('hear')) belongs to a high Theme stem, and I find it hard if not impossible to think of any high Theme stem that would disallow Passive, I disregard this issue in the main text. E.g. so-called unpassivizable 'Postal verbs' (cf. Postal (1986)) seem to allow Passivization in Polish: Paczka została otrzymana 22 lipca ('The parcel has been received on the 22 of July') or Cholery nie znano w Europie do XIV wieku, ale grypa została złapana już w 1312. ('Cholera was not known in Europe until XV century, but flu had been caught already in 1312').

is that they will be acceptable under -NO/TO. This is indeed borne out and illustrated in (152).

- (152) a. Chodz-Ø-ono tam często. walk-i-NO there often 'Someone walked there often.'
  - b. W XVIII wieku jeszcze nie lat-a-no samolotami. In XVIII century yet neg fly-aj-NO planes<sub>INSTR</sub> 'In XVIII century people didn't fly planes.'

The situation is a bit more complicated with directed motion verbs, i.e. the status of the Theme they take is difficult to establish. Some of them are irregular (e.g.  $i\acute{s}\acute{c}$  ('go/walk') and  $jecha\acute{c}$  ('go in a vehicle')). Out of these two only the latter undergoes -NO/TO, which means that its Theme is analysed as spelling out also the light verb system (cf. (153a) and (153b)). Others belong to nonproductive conjugation classes and also do not form -NO/TO (as in the case of  $lecie\acute{c}$  ('fly' -e- stem) in (153c)). The most important for our present purposes is the fact that transitive directed motion stem verbs (which, by implication, are not unaccusative) are always grammatical under -NO/TO (cf. (153d)).

- (153) a. \*Pójd-**nię**-to?/Pójdz-Ø-ono tam. (irregular) walk-**n**-NO/walk-Th-NO there
  - b. Wy-jech-**a**-no do Warszawy. (irregular) pref-go-**a**-NO to Warsaw
  - c. \*Leci-a-NO do Warszawy. (-e- stem) fly-e-a-NO to Warsaw
  - d. Ciąg-nię-to go. (C-stem) drag-n-NO him

Thus, although directed motion stems do not exactly provide evidence for the event decomposition, they do not disconfirm it either.

Object Experiencer verbs mostly belong to high Theme classes and I argued in section 2.2.2 that this is exactly the reason they occur in the Reflexive alternation (i.e. dziw-i-¢ ('surprise') vs dziw-i-¢ siq ('be surprised')). This is because the only way to express a meaning without specifying an external Cause with high Themes, is to say that the causation happens in virtue of some inherent properties of the Undergoer - essentially an anticausative derivation. Now, the prediction of the analysis is that Object Experiencer verbs are fine under -NO/TO formation, because having an external argument they do not qualify as traditionally understood 'unaccusatives'. This kind of data is already found in Lavine (2000) (cf. section 3.2.2). Yet, there it is used to emphasize an aberrant character of -NO/TO when set against the

background of other Passive constructions. Under my account, where Object Experiencer verbs of the type in (154) are non-unaccusative, their grammaticality under -NO/TO follows without any special assumptions about the latter:

- (154) a. Z-martw-i-ono Marię/ się wiadomościami z Polski. pref-upset-i-NO Maria $_{ACC}/$  refl news $_{INSTR}$  from Poland 'Someone upset Mary/ got upset with the news from Poland.'
  - b. Roz-gniew-a-no Marię/ się tym. pref-anger-aj-NO Maria $_{ACC}$ / refl this $_{INSTR}$  'Someone annoyed Mary/ got annoyed with this.'

The strongest argument for the syntactico-semantic consequences of different types of Themes comes from derived imperfective verbs. At the same time it constitutes an argument against Perlmutter's (1978) implementation of 'semantic unaccusativity'. As argued in section 2.2.8, all the SI verbs must be non-unaccusative in the sense of possessing the light verb layer due to s-selectional properties of the Secondary Imperfective. Since SI requires the presence of a delimited interval, and the only place this interval can occur is at the level of  $\nu$ , consequently all the SI predicates must be non-unaccusative. This prediction is fully confirmed and illustrated in (155) for unaccusative verbs and their non-unaccusative SI variants:

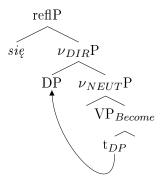
- (155) a. \*Umar-to vs Umier-a-no die-NO vs die-**Th.imp**-NO
  - b. \*By-to vs By-wa-no be-NO vs be-Th.imp-NO
  - c. \*Pad-nię-to vs Pad-**a**-no fall-n-NO vs fall-**Th.imp**-NO
  - d. \*Za-marz-nię-to vs Za-marz-a-no pref-freeze-n-NO vs pref-freeze-Th.imp-NO
  - e. \*Wy-bieg-**nię**-to vs Wy-bieg-**a**-no pref-run-**n**-NO vs pref-run-**Th.imp-**NO

I argued that in certain cases the thematic suffix can also be lexically specified to express SI morpheme (cf. the structure in (156), section 2.2.8). This is precisely the case in SI variants in (155). Since SI always embeds a light verb, we conclude that it is this fact that allows Impersonal -NO/TO. Thus, it seems that the initial argument merger is immaterial for the Impersonal -NO/TO construction, as we have seen so far for SI of 'unaccusative' verbs. The argument in derived imperfectives in (155) merges initially VP-internally, but the light verb layer must always be present in the structure. In what follows I will elaborate on the various structures involving another scenario where initial argument merge plays no role for the Impersonal construction, namely reflexive marking under Impersonal -NO/TO.

# Impersonal -NO/TO with reflexive-marked verbs

Recall from section 3.1.3 that I proposed for the reflexive uses of the reflexive clitic, as well as (some) Reflexiva Tantum the structure in (156):

# (156) Reflexives



The derivation could not possibly stop at the level of VP since the reflexive marker requires co-identification of the internal and the external  $\Theta$ -roles. Thus, the presence of a projection introducing the external argument is required. This fact, in turn, indicates that the light verb system is present in the Impersonal -NO/TO construction. I illustrate reflexive uses in (157) and Reflexiva Tantum based on the same structure in (158)

- (157) Gol-Ø-ono się/ Czes-a-no się. shave-i-NO refl/ comb-a-NO refl 'Someone was shaving/combing.'
- (158) Uśmiech-a-no się/ Panosz-Ø-ono się smile-aj-NO refl/ ROOT-i-NO refl 'Someone was smiling/ behaving in an overconfident way'

In this particular respect, -NO/TO differs from the Agreeing Periphrastic Passive, which is ungrammatical with reflexive verbs:

I postpone the exact analysis of the relevant difference until chapter 4, where the comparison is made between the two types of constructions. At this point, however, I would like to introduce the way I conceive of participial morphology. To wit, following Taraldsen's (2004)analysis of Norwegian and Japanese , I treat the participial morpheme -n/t- in Polish as an  $f_{seq}$  filler that can be inserted at various levels. I view the relevant morphology as separating macro-event domains, and in this way enabling lexicalization of

certain meaning chunks. Therefore, I label the morpheme as *Event Separator* (ES). The lexical specification of ES, however, is such that the projections it stands for do not link their Subjects via  $\Theta$ -role assignment. Therefore they yield a superficial effect of  $f_{seq}$  'abortion' or the lack of the projections lexicalized by ES.

-n/t- in Polish is an Event Separator, which can delimit one event domain in accordance with its lexical specification (yet to be established). It is lavishly inserted for subequences of  $f_{seq}$  and the projections it lexicalizes lack any thematic features.

Having said this, it becomes clear why reflexive verbs, as well as Reflexiva Tantum parasitic on reflexive structures, are grammatical under Impersonal -NO/TO. The participial morpheme -n/t- merges on top of the structure in (156), as in (161)<sup>59</sup>:

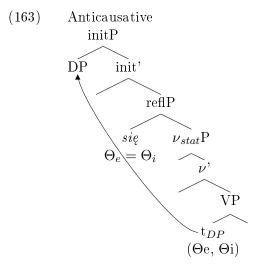
Since the reflexive requires co-identification of two thematic roles, and the DP in its complement can display the relevant two features, the derivation converges. The question that remains is the nonovert nature of the argument that bears both of the  $\Theta$ -roles. I leave the investigation of this issue until section 4.2.

Similarly to reflexives, anticausatives and Reflexiva Tantum parasitic on them, are also perfectly grammatical under -NO/TO. That has been found already in Lavine (2000) for Reflexive Psych-verb (cf. (145) and (154)). In (162) I illustrate the point with Reflexiva Tantum parasitic on anticausative structures:

(162) S-poc-Ø-ono się/ Wz-bogac-Ø-ono się/ Boryk-a-no się pref-sweat-i-NO refl/ pref-rich-i-NO refl/ struggle-aj-NO refl 'Someone sweated/ got rich/ struggled.'

The reader will recall that the structure proposed for the anticausatives in section 3.1.3 was as in (163):

<sup>&</sup>lt;sup>59</sup>For the time being I remain agnostic with respect to the exact identity of the projection that -n/t- lexicalizes in (161).



If the relevant Event Separator -n/t- merges on top of the reflexive in the structure in (163), and in this way 'swallows up' the higher functional projections, including initP, there is no way for the derivation to converge. This is because refl<sup>0</sup> when searching for the first accessible Goal, will find DP in Spec,VP and will co-identify the internal  $\Theta$ -role on it with the (optional) feature relevant for  $\nu_{stat}$ . The reader will recall, however, from section 3.1 that the optional thematic feature of this level of structure (i.e. either agentive  $\nu_1$ P or stative  $\nu_{stat}$ P)) is not visible for refl<sup>0</sup>. Therefore, we are forced to conclude that  $\nu_{DIR}$ P must always be obligatorily embedded under -NO/TO and the sole DP must display the relevant thematic feature. The proposed structure is in (164):

(164) Anticausative verbs in Impersonal -NO/TO 
$$[?P - n/t - [reflP \Theta_i = \Theta_e [\nu_{DIR}P \Theta_e [\nu_{stat}P [VP \Theta_i]]]]]$$

What distinguishes the structure in (164) from the structure for Reflexives in (156) is the stative variety of the first of the light verbs.

The proposal in (164) yields the following prediction. In spite of the fact that anticausatives do not display any restrictions on the denotation of its surface subject<sup>60</sup>, the argument of anticausatives embedded in Impersonal -NO/TO should be restricted to DPs denoting animate entities, as it has to move to Spec, $\nu_{DIR}$ P. This prediction is in fact confirmed by the data:

(165) a. Material/ Maria s-kurcz-y-ła się. material/ Maria pref-shrink-Th-pst.sg.f refl 'The material/ Maria shrunk.'

<sup>&</sup>lt;sup>60</sup>In fact, it seems that inanimate Subjects are preferred with anticausatives, as they rule out the ambiguity with the reflexive structure.

- b. S-kurcz-Ø-ono się.pref-shrink-Th-NO refl'Someone crouched / diminished.'
- c. Rama/ Maria wy-krzyw-i-ła się.
   Frame/ Maria pref-crook-Th-pst.sg.f refl
   'The frame got crooked/ Maria made a sour face.'
- d. Wy-krzyw-i-ono się.
  pref-crook-Th-NO refl
  'Someone made a wry face.'
- e. Farby/ Kobiety z-miesz-a-ły się. paints/ women pref-mix-Th-pst.non-vir refl 'Paints got mixed/ Women got embarrassed.'
- f. Z-miesz-a-no się. pref-mix-Th-NO refl 'Someone got embarrassed.'

Although unembedded anticausative predicates in (165) can have both animate and inanimate Subjects, as illustrated in (165ace), when they occur in the Impersonal -NO/TO construction, they can only be predicated of animate Subjects. Therefore, all of them undergo a slight meaning change in order to fit the animate Subject scenario.

The second piece of evidence to the same effect is the fact that anticausative verbs which can be predicated of inanimate Subjects only, are quite marginal in Impersonal -NO/TO construction. The reason why I do not star the relevant examples, is because I allow for speaker-dependent flexibility in imposing (fairy tale) scenarios, where the relevant verbs could be used in relation to animate Subjects (i.e. I distinguish between Borerian 'ungrammaticality' vs 'oddness').

- (166) a. Wiadomość/ #Maria z-dezaktualiz-owa-ła się. news/ Maria pref-outdate-Th-pst.sg.f ref 'The news became outdated.'
  - b. # Dezaktualiz-owa-no się. outdate-Th-NO refl
  - c. Wykład/ #Jan dłuż-y-ł się. lecture/ Jan long-Th-pst.sg.m refl 'The lecture was getting boring.'
  - d. #Dłuż-Ø-ono się. long-Th-NO refl
  - e. Długopis/ #Jan z-uż-y-ł się. ball.pen/ #Jan pref-use-Th-pst.sg.m refl 'The ball pen became used up.'
  - f. #Z-uż-y-to się. pref-use-Th-NO refl

In fact, it needs to be stressed that the semantic restriction on the interpretation of the external argument in Impersonal construction is even stronger than [+animate], i.e. [+human]<sup>61</sup>. The question how to derive humanness (Rozwadowska's sentience) requirement on anticausatives in -NO/TO could probably be answered in two different ways: (i) if the implied argument is in fact  $pro_{arb}$ , as in Lavine (2000), it is due to the universal specification of pro-arb (i.e. [+human]); or (ii) it is due to the argument passing through the Specifier of a particular functional projection in a verbal sequence. In chapter 4 and 5 I will in fact argue for the latter solution since firstly, it does not follow from anything why exactly  $pro_{arb}$  should always be human, and secondly, the necessary presence of covert  $pro_{arb}$  in the Impersonal construction does not follow from anything, and is thus begging the question.

It is worthwhile to observe that the structure in (164) also correlates with the availability of stative verbs under -NO/TO on condition the argument is interpreted as [+human]. This prediction is in fact borne out by the data, as shown in (167):

- (167) a. Leża-no na tapczanie. lie-NO on couch 'Someone was lying on the couch.'
  - b. Siedzia-no po turecku. sit-NO after turkish 'Someone was squatting.'
  - c. Cierpia-no na malarię. suffer-NO at malaria 'Someone suffered from malaria.'

That implies that the presence of  $\nu_{DIR}P$  is distinct from the question of stativity or agentivity of the causing subevent.

Furthermore, the proposal in (164) also derives the previously mentioned observation from Rozwadowska (1992) to the effect that Object Experiencer verbs of the *surprise* type are only grammatical in -NO/TO on the special kind of reading. (168) is (144) repeated and adapted for the present purposes:

(168) Zdziwio-no mnie (??swoim wyglądem). surprise-NO me<sub>ACC</sub> poss-refl appearance 'I was surprised with someone's appearance.'

The bracketed Subject Matter in (168) seems to impose a lack-of-control, nonsentient reading on the structure. When the Subject Matter is absent,

 $<sup>^{61}</sup>$  This will be the main reason for shifting the ES in Impersonal -NO/TO even higher than on top of  $\nu_{DIR}$  - cf section 4.2, as well as chapter 5, where -NO/TO is approximated to the Impersonal Reflexive Construction, and hence receives a slightly different structural representation in a more fine-frained functional sequence.

the sentence becomes grammatical. I conclude that the difference between the most salient reading of active Object Experiencer verbs, and the reading present with the relevant verbs under -NO/TO construction does not boil down the the dichotomy stative vs agentive, but rather to the absence vs presence of the semantic feature contributed by  $\nu_{DIR}$ P. Assuming that  $\nu_{DIR}$ P is an obligatory part of  $f_{seq}$ , it must be concluded that the Cause argument of active Object Experiencer verbs in their most salient (i.e. non-volitional) readings does not occupy or pass through the Specifier of the relevant projection, as opposed to Object Experiencer verbs embedded under -NO/TO.

Having discussed reflexives, anticausatives, statives, and Object Experiencer verbs, let me finally take up the issue concerning the interaction of prefix-induced reflexive verbs with Impersonal Passive -NO/TO. The high Theme prefix-induced reflexives are, not very surprisingly, possible in -NO/TO construction:

- (169) a. Za-koch-a-no się. pref-love-**aj**-NO refl 'Someone fell in love.'
  - b. Wy-krwaw-i-ono się.
     pref-blood-i-NO refl
     'Someone bled out.'

The derivation would be as for reflexives, except that the covert argument would this time originate in Spec,RP, instead of Spec,VP. As it seems that both of the predicates in (169) are unergatives in the sense that no VP<sub>Become</sub> seems to be present with them (as evidenced e.g. by their non-participation in causative/inchoative alternation), I do not represent VP in the structure in (170). It should be borne in mind, however, that if this projection happens to be present with some stems that clearly lexicalize the projection introducing UNDERGOER, then the RESULTEE would have to raise via Spec,VP<sub>Become</sub> on its way to Spec, $\nu_{DIR}$ .

# (170) Prefix-induced verbs in Impersonal -NO/TO $[?P - n/t - [reflP \ sie \ [\nu_{DIRP} \ DP \ [\nu_{1P} \ [RP \ t_{DP} \ ]]]]]$

As I observed in section 3.1 that prefix-induced reflexives always seem to display the human restriction on their Subjects, it seems that their structure under Impersonal -NO/TO is not different from the structure when they are unembedded.

More interestingly, however, the two examples of Theme<sub>low</sub> stems involving an argument with two  $\Theta$ -roles: Subject of RP and Subject of Transition in

 $\mathrm{VP}_{Become}$ , are clearly ungrammatical under -NO/TO and do not allow any sort of coercion:

- (171) a. \*Roz-marz-nię-to się.

  pref-freeze-n-NO refl

  intended:'Someone defrosted.'
  - \*Roz-pad-nię-to się na podgrupy.
     pref-fall-n-NO refl onto subgroups intended: 'People divided into subgroups.'

This is as predicted, in view of the fact that -NO/TO, analogously to the Periphrastic Passive, cannot attach to unaccusatives<sup>62</sup>.

Last but not least, the interaction between the Impersonal -NO/TO and the reflexive clitic is reflected in the fact that I already mentioned in section 3.1. The effect that the reflexive has on the (non-)unaccusativity of the verb stem is best illustrated by the minimal pair in (172). Uciec ('escape') is a verb with a slightly irregular paradigm<sup>63</sup>. It is analysed as a Theme<sub>low</sub> and consequently ungrammatical under -NO/TO. However, there is another verb (belonging to the  $Reflexiva\ Tantum\ type$ ) with an identical stem which means 'resort'. In this case the presence of the reflexive induces a non-unaccusative analysis, and consequently the reflexive-marked verb is perfect in Impersonal -NO/TO construction (cf. (172b)).

- (172) a. \*U-ciek-nię-to z więzienia.

  pref-leak-Th-NO from prison
  intended: Someone escaped from prison.
  - b. U-ciek-nię-to **się** do rozwiązań ekstremalnych. pref-leak-Th-NO refl to solutions extreme 'Someone resorted to extreme measures.'

That means that there are in fact two separate lexical entries for (172a) and (172b) in (173a) and (173b) respectively<sup>64</sup>:

(173) a. 
$$\sqrt{ciek}$$
 + Theme<sub>low</sub>: [V<sub>Become</sub>]  
b.  $\sqrt{ciek}$  + Theme<sub>high</sub>: [V<sub>Become</sub>  $\nu_1, \nu_{DIR}$ ] + refl<sup>65</sup>

<sup>&</sup>lt;sup>62</sup>Note that the two alternative explanations for the ungrammaticality of (171), i.e. (i) no external argument for the reflexive to co-indentify, and (ii) inanimacy of the Subject, could not possibly account for (171). As for the former, it is precisely with these two predicates that the reflexive can exceptionally license co-identification of Resultee and Undergoer. As for the latter explanation, we expect (171b) to be a coercible scenario when the verb is predicated of human beings. Yet, it seems to be impossible.

<sup>&</sup>lt;sup>63</sup>It would be a perfect inchoative -n- stem if it wasn't for the lack of the Theme in the infinitive.

<sup>&</sup>lt;sup>64</sup>In the lexical entry in (173b) I assume that this is the type of obligatorily reflexive verb that is parasitic on the reflexive structure (cf. (90) section 3.1.3)

Similar effects seem to obtain for German Auxiliary selection (cf. Keller and Sorace (39)) in the presence of the reflexive marker *sich*. Consider the constrast in (174):

- (174) a. Das Kind ?ist/hat auf den Boden gehockt. the child is/has on the floor squatted. 'The child squatted on the floor.'
  - b. Das Kind \*ist/hat sich auf den Boden gehockt. the child is/has refl on the floor squatted 'The child squatted on the floor.'

The Auxiliary HAVE, which normally occurs with traditionally understood 'non-unaccusative' verbs, occurs also when the verb displays reflexive marking, as opposed to the preferred 'unaccusative' Auxiliary BE occurring with the same stem without the reflexive marking.

# Evidence for the presence of a covert external argument

So far, however, I have not discussed the evidence to the effect that external argument *pro-arb* is in fact present in Impersonal -NO/TO construction. These can also be found in Lavine (2000) (drawing on different sources) and include (i) control into participial clauses (first pointed out by Dyła (1982)), and (ii) binding of anaphors. I illustrate both points in (175) and (176) respectively.

Control into participial clause

(175) Krzycz-a-no, próbuj-ąc wymusić odwrót. shout-Th-NO, try-pres.prt to.force withdrawal 'People were shouting, trying to force a withdrawal.'

Binding of possessive reflexive

(176) Nie sluch-a-no swoich nauczycieli.
neg listen-Th-NO poss.refl teachers
'People weren't listening to their teachers.'

Since the possessive reflexive in (176) is an anaphor, it needs to be bound in its local domain. If so, however, then there has to be a syntactically active binder - the external argument present in (176). As for (175), it seems that present participial clauses also require the presence of an external argument, as they are marginal with Theme<sub>low</sub> stems (cf. (22a) and (22b) in section 3.1 for a similar contrast in a different control environment):

 $<sup>^{65}</sup>$ If the lexical entry contains also information about Merge vs Move/Remerge way of checking  $\Theta$ -roles, then the presence of the reflexive marker in a lexical entry is made redundant. Cf. section 3.2.4 for lexical entries.

(177) a. Dzieci u-cisz-y-ły się, próbuj-ąc children $_{NOM}$  pref-quiet-Th $_{high}$ -pst.non-vir refl, try-pres.prt usłyszeć wołania.

 $hear_{inf}$  callings

'The children got quiet, trying to hear the calling.'

b. ??Dzieci u-cich- $\varnothing$ -ły, próbuj-ąc usłyszeć children $_{NOM}$  pref-quiet-Th $_{low}$ -pst.non-vir, try-pres.prt hear $_{inf}$  wołania.

callings

intended: 'The children became quiet, trying to hear the calling.'

I ascribe the marginal possibility of having (177b) to the option that Williams (1981) labels *event control*. The contrast in (177) again testifies to the presence of an external argument in (175).

Furthermore, Impersonal Passive is also compatible with depictive secondary predication, in contrast to Periphrastic Passive and Theme<sub>low</sub> unaccusative verbs, where this possibility is marginal or unavailable<sup>66</sup>:

Depictive Secondary Predicate with -NO/TO

(178) Tę książkę czyta-no nagim. this book<sub>ACC</sub> read-NO naked<sub>INSTR.sg</sub> 'This book was read naked.'

Depictive Secondary Predicate with Agreeing Passive

(179) ??Ta książka była czyta-n-a nagim. this book $_{NOM}$  was read-pass-fem naked $_{INSTR.sg}$  intended: 'This book was read when naked.'

(i) Książka została napisana \*pijanym. book become $_{pst.3sg.f}$  written drunk $_{INSTR}$  intended: 'The book has been written drunk.'

whereas adverbial PP po pijanemu is perfectly possible:

(ii) Książka została napisana po pijanemu. book become $_{pst.3sg.f}$  written at drunk $_{DAT}$  'The book has been written drunk.'

I take the contrast between Polish (178) and (179) to be indicative of a different status of the external argument in Periphrastic Passive and Impersonal construction (i.e. adjunct vs argument respectively).

<sup>&</sup>lt;sup>66</sup>One sees claims in the literature that depictives are possible in English type of agreeing Passive, and therefore the external argument should be syntactically represented. E.g. Collins (2004) provides examples of the kind: *The book was written drunk*. The question is whether 'drunk' in English is not ambiguous between a Secondary Predicate (possibly involving control of the Subject of Small Clause) and a vanilla-flavor manner adverbial. This is particularly acute in Polish, where 'real' (i.e. more restrictive) adjectival secondary predicates bearing INSTR Case are quite marginal in a Periphrastic Passive:

Depictive Secondary Predicate with 'real unaccusatives'

(180) \*Maria po-smutni-a-ła nagą.

Maria<sub>NOM</sub> pref-sad-Th-pst.sg.f naked<sub>INSTR.sg</sub>
intended: 'Maria became sad when naked.'

As before, the Depictive test seems to imply the presence of an external argument in the Impersonal -NO/TO construction.

Furthermore, the incompatibility of Polish -NO/TO with any kind of by-phrase seems to also confirm the presence of the external argument.

(181) Czyta-no książkę (\*przez Marka/\*przez każdego kto chciał read-NO book $_{ACC}$  (\*by Marek/\*by anyone who wanted mieć wyniki) to.have results)

Whether the attempted by-phrase is compatible with an episodic or generic context, the sentence is ungrammatical. If the external argument position is occupied by pro-arb, as witnessed by the necessarily [+human] interpretation, all of the above mentioned properties follow.

# 3.2.4 Conclusion

Summarizing the results of the present section, it seems that -NO/TO construction in Polish is possible with a huge range of verbs to the exclusion of low Theme 'unaccusative' verbs. The verbs allowed under -NO/TO include unergatives, transitives, reflexive-marked verbs, stative verbs (both anticausatives and other statives), all non-directed motion verbs, and all Secondary Imperfective verbs. Since all of the above mentioned predicates are high Theme stems, it seems that Impersonal -NO/TO construction is an unaccusativity test in a certain sense. Also, the crucial import of the typology of Themes established in chapter 2 is further confirmed. Let me then propose that (182) holds:

(182) Polish -NO/TO construction applies only to verbs with external arguments, and in this sense behaves as a prototypical Passive. The external argument is always realized as  $pro_{arb}$ .

As it stands, (182) is nothing more than a descriptive statement. I will try to explicate the reasons for the presence of  $pro_{arb}$  in section 4.2. Thus, we seem to arrive at the first approximation of the lexical specification of Polish -n/t- (to be gradually revised in chapter 4). In abstract terms, if  $\nu_{NEUT}/\nu_{stat} = \nu_1$ , and  $\nu_{DIR} = \nu_2$ , then:

(183) **ES** -n/t-:  $[\nu_3]$ 

Based on the Impersonal -NO/TO construction, I conclude that the Event Separator -n/t- in Polish lexicalizes the next projection in a light verb system on top of  $\nu_{DIR}$ . As Theme $_{low}$  lexicalizes only up until VP $_{Become}$ , and Polish does not possess an item that would be lexically specified to spell out the subsequence:  $[\nu_{1/stat}, \nu_{DIR}]$  (i.e. the subsequence relevant for so-called 'lexical causatives'), it follows that Impersonal -NO/TO construction is only possible with Theme $_{high}$  stems, and precisely in this sense is a split intransitivity diagnostic.

As a way of summary I present the structural representations of all the relevant verb types in the Impersonal -NO/TO construction, together with the lexical entry for their roots and Themes they take.

1. **unergative**: Gad-a-no ('There was chatting') (chat-Th<sub>high</sub>-NO)

(184) a. 
$$[-n/t-[\nu_{DIRP} \ pro_{arb} \ [\nu_1]]]$$
  
b.  $\sqrt{gad} + -\text{aj-:} \ [\nu_1 \ (,\nu_{DIR} \ (,...))]$ 

The reader will observe that  $\nu_{DIR}$  is specified as optional for this particular root. One might postulate that for this root  $\nu_{DIR}$  is in fact obligatory, which would derive two facts: (i) ungrammaticality in agreeing Periphrastic Passive (cf. chapter 4), (ii) animacy of the Subject. Yet, as I stated above, the ungrammaticality of the agreeing Passive is in fact due to intransitivity of the verb. On the other hand, unergatives as a group do not uniformly display animacy of the Subject restriction: e.g. Theme<sub>high</sub> stem teta-i-c ('throb') is in fact predicated of inanimate entities<sup>67</sup>. Therefore, in spite of the apparent lack of scenarios where  $\nu_{DIR}$  would not be spelled out by the Theme in (184b), making it an optional element of its lexical specification yields a conceptually simpler system, since  $\nu_{DIR}$  remains optional for all the high Themes.

2. **transitive**: Top-i-ono lód (melt-Th<sub>high</sub>-NO) ('Someone was melting the ice.')

(185) a. 
$$[-n/t-[\nu_{DIR} \ pro_{arb} \ [\nu_1 \ [VP_{Become} \ DP]]]]$$
  
b.  $\sqrt{top} + -i-: [V_{Become}, \nu_1 \ (,\nu_{DIR} \ (,...))]$ 

3. **reflexive**: Gol-Ø-ono się (shave-Th<sub>high</sub>-NO refl) ('Someone was shaving')

<sup>&</sup>lt;sup>67</sup>In fact, even for transitives taking obligatorily sentient human Subjects there is no way to postulate obligatory  $\nu_{DIR}$ , as they undergo agreeing Periphrastic Passive, e.g. *Prezes zostal zamordowany* ('The chairman was murdered').

(186) a. 
$$\left[-n/t\text{-}\left[reflP\ sie\ \left[\nu_{DIR}\ pro_{arb}\ \left[\nu_{1}\ \left[VP_{Become}\ t_{pro-arb}\ \right]\right]\right]\right]\right]$$
  
b.  $\sqrt{gol}$  + -i-:  $\left[V_{Become}^{(*)},\ \nu_{1},\ \left(\nu_{DIR}^{(*)},\ \ldots,\ \right)\right]$ 

The bracketed asterisk in (186b) stands for the possibility of checking the relevant  $\Theta$ -feature by Move. I take it that checking by Merge is a default option and as such need not be marked in the lexical entry. This way the presence of the reflexive marker need not be lexically specified either.

4. **anticausative**:  $Budz-\varnothing-ono\ sie$  (wake-Th<sub>high</sub>-NO) ('Someone was waking up')

(187) a. 
$$\left[\frac{-n/t\text{-}}{b}\left[reflP\ sie\ \left[\nu_{DIR}\ pro_{arb}\ \left[\nu_{stat}\ \left[VP_{Become}\ t_{pro-arb}\ \right]\right]\right]\right]\right]$$
  
b.  $\sqrt{budz}$  + -i-:  $\left[V_{Become}^{(*)},\ \nu_{1/stat},\ \left(\nu_{DIR}^{(*)},\ \left(\dots\right)\right)\ \right]$ 

5. **prefix-induced reflexive**: Za-koch-a-no siq (pref-love-Th $_{high}$ -NO) ('Someone fell in love')

(188) a. 
$$[-n/t-]_{reflP} sie_{[\nu_{DIR} pro_{arb}]_{\nu_{stat}}} [_{RP} t_{pro-arb} [_{PP} za-]_{]]]]]_{]}_{b.}$$
  
b.  $\sqrt{koch} + -aj-: [(Appl), \nu_{stat}, (\nu_{DIR}^{(*)}, ...))]$ 

The optional asterisk in (188b) indicates that checking the external Θ-role happens either through Merge (as in the regular unprefixed variant) or through Move (as in lexically prefixed variant). The optional presence of Appl accounts for the presence of 'fake' object in the transitive variant (but see below for reformulations).

6. **Reflexiva Tantum**: lęk-a-no się (afraid-Th $_{high}$ -NO refl) ('Someone was afraid')

(189) a. 
$$\left[\frac{-n/t}{reflP} sie\left[\frac{v_{DIR} \ pro_{arb}}{v_{DIR}} \left[\frac{v_{PBecome}}{v_{Stat}} \left[\frac{v_{PBecome}}{v_{DIR}} t_{pro-arb}\right]\right]\right]\right]$$
  
b.  $\sqrt{lek} + -aj$ :  $\left[VP_{Become}^*, v_{stat}, \left(\frac{v_{DIR}^*}{v_{DIR}^*}, \dots\right)\right]$ 

In this case the asterisk on  $\nu_{DIR}$  and  $\text{VP}_{Become}$  is obligatory, which means that the former  $\Theta$ -role is necessarily checked by Move, i.e. transitive structures are not allowed.

7. other Stative: Leż-a-no (lie-Th-NO)

(190) a. 
$$\left[\frac{-n/t}{v_{DIR}} pro_{arb} \left[\frac{1}{v_{stat}}\right]\right]$$
  
b.  $\sqrt{leg} + -e$ :  $\left[v_{stat} \left(\frac{1}{v_{DIR}} \left(\frac{1}{v_{DIR}} \right)\right)\right]$ 

In general then, it seems that there is only a restricted number of combinations that a Theme<sub>high</sub> can lexicalize:

1. 
$$[\nu_1 (,\nu_{DIR}^{(*)} (,...))]$$

This lexical entry embraces both unergatives, as well as prefix-induced reflexives based on agentive stems (e.g.  $bebn-i-\acute{c}$  ('drum') and na-gad- $a-\acute{c}$  sie ('talk to satiation'). In unergatives the external  $\Theta$ -role is checked by Merge, in prefix-induced reflexives by Move (from Spec,RP). What allows the collapsed entry is the assumption that all unergatives productively allow prefix-induced alternation, which seems to be the case in Polish.

**2.** 
$$[V_{Become}^{(*)}, \nu_1(,\nu_{DIR}^{(*)}(,\dots))]$$

This is the entry for alternating transitive/reflexive verbs (e.g. gol-i- $\acute{c}$  (sie) ('shave').

**3.** 
$$[V_{Become}^{(*)}, \nu_1/\nu_{stat} (,\nu_{DIR}^{(*)} (,...))]$$

The above represents a collapsed entry for transitive agentive and stative verbs, which show an anticausative alternant (e.g. ambiguous between stative and agentive readings dziw-i- $\acute{c}$  ('surprise') and dziw-i- $\acute{c}$  sie ('be surprised') or psu $\acute{c}$  ('destroy') and psu $\acute{c}$  sie ('get destroyed')). Again, collapsing is only valid to the extent that all of these verbs can oscillate between agentive and stative readings. Additionally, it probably needs to be stipulated that checking the external  $\Theta$ -role by Move is only allowed on top of  $\nu_{stat}$ , although it is not clear to me to what extent anticausative verbs like topi $\acute{c}$  sie ('melt', intr.) also allow an inherent reflexive reading. If they do, then it seems the distinction between anticausative and reflexive is in fact just the salience of one or the other structure for a particular root.

**4.** 
$$[V_{Become}^*, \nu_1/\nu_{stat}, (\nu_{DIR}^*, \dots))]$$

This lexical entry characterizes  $Reflexiva\ Tantum$  of both types: based on reflexive structures (i.e. involving  $\nu_1$ ) and on anticausative structures (with  $\nu_{stat}$ ). By parity of reasoning, I assume that RT are freely coercible into their less salient readings. Thus, e.g., with different degrees of straining, all of them could be uttered in a context requiring an agentive light verb, i.e.  $\dot{z}eby$  ('in order to...') clause.

The question that arises now is: what about non-alternating transitive verbs? In other words, the verbs which do not have either reflexive or anticausative alternants, e.g. rob-i- $\acute{c}$  ('do/make'), za-miat-a- $\acute{c}$  ('sweep'), czyt-a- $\acute{c}$  ('read'), pis-a- $\acute{c}$  ('write'), mord-owa- $\acute{c}$  ('murder'). One might postulate another entry,

similar to the aforementioned, but with no option of checking the external  $\Theta$ -role by Move. I would like to propose, however, that these verbs are in fact 'fake transitives' discussed in section 2.2.2. In other words, they do not lexicalize the projection introducing an Undergoer, but their objects are introduced by a non-predication relation labelled here Appl(icative). Furthermore, assuming that Appl is mutually exclusive with the whole subsequence [PP, RP,  $VP_{Become}$ ], but otherwise is freely available, it seems that it does not have to be specified in the lexicon. Thus, the entry for such verbs would be no different than the entry for unergatives in 1.

Finally, we have stative verbs like e.g.  $koch-a-\acute{c}$  ('love'),  $cierpi-e-\acute{c}$  ('suffer'),  $le\dot{z}-e-\acute{c}$  ('lie'), etc. with the following lexical entry:

**5.** 
$$[\nu_{stat} (\nu_{DIR} (,...))]$$

Some of these verbs will have an option of entering a prefix-induced alternation (e.g. za-kocha-a- $\acute{c}$  siq ('fall in love')), in which case the asterisk is necessary:

**6.** 
$$[\nu_{stat} (,\nu_{DIR}^{(*)} (,...))]$$

Last but not least, we need a separate entry for prefixed Reflexiva Tantum (e.g. za-cietrzew-i-ć sie ('become angry/ready to fight', cf. \*cietrzewić (sie)):

7. 
$$[\nu_1/\nu_{stat}, (\nu_{DIR}^*(,...))]$$

Concluding, there seems to be seven possibilities of lexicalization for the Theme<sub>high</sub>. Let us assume these possibilities correspond to subscripting on the Theme: i<sub>1</sub>, i<sub>2</sub>, etc. Under these assumptions the process of argument structure aquisition consists purely in the matching of a particular root with one of the seven subscripted variants of the Theme (for Theme<sub>high</sub>) and the rest of the roots with Theme<sub>low</sub>. As there is only one possible entry for Theme<sub>low</sub> (i.e.  $[V_{Become}]$ ), no further specification needs to be included.

# 3.2.5 Excursus on Turkish

It seems that Polish is not the only language possessing the relevant construction. Thus, Turkish Impersonal Passive is claimed to display all the exotic properties that I have identified for Polish -NO/TO (cf. Biktimir (1986), and Özkaragöz (1986)). I enumerate them below:

1. It seems to apply to unaccusative verbs, as illustrated in (191) (see below, however, for the remark with respect to (198b)):

- (191) a. Buz-un üst-ün-de sik sik düs-ül-ür. ice-GEN top-POSS-LOC often fall-PASS-AOR 'Is fallen on the ice often/People fall on the ice often.'
  - b. Yazun burada boğul-un-ur. in.summer here drown-PASS-AOR 'Is drowned here in the summer./People drown here in the summer.'

(Biktimir, 1986:(103-4))

I have in fact argued for Polish that this is only an illusion since all of the relevant verbs are non-unaccusatives. There is nothing, however, prohibiting a different lexicalization option for the relevant morpheme in Turkish (i.e. Turkish 'passive' morphology would be allowed to merge on top of  $VP_{Become}$ , and would be lexicalizing  $\nu_1$ , possibly optionally).

- 2. It is restricted to specific Tense interpretation/morphology, i.e. Aorist (cf. (191)).
- 3. The Subject is interpreted as necessarily human (i.e. PRO, as argued by Özkaragöz (1986) and Biktimir (1986)). Thus, according to Biktimir, (192) is a statement about rowdy youths:
  - (192) #Gece sokak-ta havlan-il-iyor. night street-LOC howl-PASS-PROG 'It is howled on the streets at night.'

(Biktimir, 1986:(9))

- 4. by-phrases are totally ungrammatical in Impersonal Passive. This fact is taken by Biktimir to reflect the non-specificity requirement on the chômeur PRO Subject of Impersonal Passives.
  - (193) \*Bu yetimhane-de öksüz cocuk-lar tarafından cabuk this orphanage-LOC orphan child-PL by quickly büyü-n-ür.
    grow.up-PASS-AOR
    '(It) is grown up quickly by orphan children in this orphanage.'

(Biktimir, 1986:(11))

Whether the ungrammaticality is really due to specificity, should be verified by substituting the specific by-phrase with a generic one, e.g. by anyone who does not oppose much. My hunch is that in spite of the

genericity, this by-phrase would also be ungrammatical, just as it is in the case of Polish Impersonal Passive (cf. also (181)):

- (194) W tym sierocińcu dorasta-no szybko (\*przez każdego kto in this orphanage grow.up-NO quickly (by anyone who nie stawiał oporu) neg put.up resistance) intended: 'It was grown up quickly in this orphanage by anyone who did not resist.'
- 5. Doubled Passive morphology is possible and is argued by Özkaragöz to involve an Impersonal Passivization of a Personal Passive:
  - (195) a. Bu sato-da boğ-**ul-un**-ur. this chateau-LOC strangle-PASS-PASS-AOR 'One is strangled (by one) in this chateau.'
    - b. Bu oda-da döv-ül-ün-ür.
       this room-LOC hit-PASS-PASS-AOR
       'One is shot (by one) in this room.'

(Özkaragöz, 1986:(1ab))

We will see in section 4.2 that this property also holds of Polish Impersonal Passive -NO/TO.

- 6. There is some evidence for the presence of external argument PRO. Biktimir (following Özkaragöz (1986)) investigates the adverbial construction -ArAk. The construction involves obligatory EQUI<sup>68</sup>:
  - (196) Hasan kos-**arak** gel-di. Hasan run-ArAk come-PAST 'Hasan came running.'

(Biktimir, 1986:(14))

More interestingly, however, the ArAk construction requires both the Controller and the Controllee to bear the same grammatical relation. Translating into our terminology, an unergative verb can only embed an adverbial clause containing an unergative verb, and an unaccusative matrix verb can only embed unaccusative predicate. The restriction also extends to objects of Passives:

 $<sup>^{68} \</sup>rm Biktimir's$  analysis is cast in Relational Grammar terms.

- (197) a. Adam sayikla-yarak öl-dü. <sup>69</sup> man rave-ArAk die-PAST 'The man died raving.'
  - b. \*Adam konus-arak öl-dü.

    man talk-ArAk die-PAST
    intended: 'The man died talking.'
  - c. \*Cocuk sakiz ciğne-yerek öp-ül-dü. child gum chew-ArAk kiss-PASS-PAST intended: 'The child was kissed (while) chewing gum.' (Biktimir, 1986:(15-16))

Moreover, the controller and the target of EQUI must end up as final 1s (i.e. surface Subjects). In that respect Impersonal Passives seem to constitute a problem:

- (198) a. Sakiz ciğne-yerek hoca-yla konus-ul-maz. gum chew-ArAk teacher-with speak-PASS-NEG.AOR 'One does not speak with the teacher while chewing gum.'
  - b. Oku-yarak adam ol-un-maz.
    read(study)-ArAk man become-PASS-NEG.AOR
    'One does not become a man by studying.'

(Biktimir, 1986:(17-18))

Under the Advancement analysis of Passive, a dummy 2 is inserted and then it is advanced to a final 1. That means that a dummy 1 is the only candidate for Cotrolling EQUI - an undesirable result since it is not clear how a dummy could be coreferent with any NP. Assuming the demotion analysis of Passive does not improve things either, since then there is no Subject at all, hence no potential Controller. This problem leads Biktimir to propose that the Controller of EQUI is PRO chômeur subject.

Apart from the problem of superficial lack of Controller, there is also another issue in (198b). Although 'become' seems to be an unaccusative verb semantically, i.e. the argument is probably an initial 2 in RG terms, the sentence is still grammatical with an embedded unergative predicate - a clear violation of the condition on -ArAk attachment. To the extent that I can understand the data, that seems to indicate that at least at some level of representation (relevant for -ArAk attachment), the implied argument of 'become' seems to be in an external argument position. We will see parallel cases in Polish 'double' Passives in section 4.2.

<sup>&</sup>lt;sup>69</sup>That is, the verb 'rave' is probably by assumption unaccusative.

- 7. The postulated PRO Controller seems to act as an argument, as opposed to an oblique. Biktimir argues that PRO is a chômeur. Yet, she runs into problems when it comes to the possibility to control EQUI since regular (specific) chômeurs never seem to be able to do it:
  - (199) \*(Cocuk) sakiz ciğne-yerek annesi cocuk tarafından child gum chew-ArAk his.mother child by öp-ül-dü. kiss-PASS-PAST
    'Its mother was kissed by the child (while) (the child) was chewing gum.'

(Biktimir, 1986:(22))

8. To the extent that I understand the data, ACC Case seems to be allowed, although difficult for independent reasons since only specific DPs are marked with ACC. Thus, Biktimir observes that it is quite hard to come up with examples where a subject is non-specific, and an object specific (fn. 6).

Although the exact analysis of the Turkish data still awaits future research, it seems that the set of fact enumerated above is at least suggestive in the context of Polish Impersonal -NO/TO construction. Firstly, there seems to be evidence for the presence of a syntactically active external argument, which is necessarily interpreted as human. Secondly, this type of Passive can attach on top of a regular Passive and it is restricted to a specific value of Tense. It is hoped that the analysis proposed for Polish -NO/TO in section 4.2 will be, mutatis mutandis extendable to Turkish data as well.

# Part II Event Separators

# Chapter 4

# Constructions involving participial morphology

# 4.1 'Polyfunctionality' of participial morphology

Although it seems an impossible task to do justice here to the whole literature on participles in many different languages, I will at least try to sketch the dilemma relating to the polysemous nature of participial morphology. In that relation, consider (1), where (almost) the same morphology is used in four different constructions displaying different properties:

- (1) a. The book remains unread. stative adjectival passive
  - b. The book seems carefully read. resultative
  - c. The book is being carefully read by the student. verbal passive
  - d. The student has read the book carefully. perfect tense

# 4.1.1 Stative vs eventive passive

The contrast between verbal eventive passives in (1c) (here diagnosed by the Progressive aspect as well as a by-phrase) and adjectival stative passives in (1a) (diagnosed by the position as a complement to remain, as well as the negative prefix un-) has been abundantly discussed in the literature starting with Wasow (1977) (cf. also Lieber (1980), Bresnan (1982), Levin and Rappaport (1986), Platzack (1980)). The two constructions differ in a number of ways including (i) being selected by different types of verbs (i.e. verbs subcategorized for adjectives can only take stative passives, cf. (2)); (ii) possibility to take degree modification (only with stative passives, cf. (3)); (iii) possibility to occur with idiomatic objects (relevant only for verbal passives, cf. (4)); (iv) possibility to occur as resultative secondary predicates (cf. (5)); (v) the presence of external argument (only with verbal passives, cf. (6)),

 $etc^{1}$ .

- (2) a. \*New York seems approached/left in the tourist season.

  (Emonds (2006:4))
  - b. The door seems unpainted.
- (3) a. The garden seems too overplanted.
  - b. \*The garden is being too overplanted. (Emonds (2006:5))
- (4) No attention is being paid / \*seems paid to minor officials.

(Emonds (2006:7))

- (5) John kicked the door open/\*opened. (Embick (2004:359))
- (6) a. The meeting was started on time by Susan in order to please the host.
  - b. That series of meetings sounds completed (\*by the committee). (Emonds (2006:6))

It seems that most of these differences boil down to a more fundamental interpretive difference between adjectival and verbal passives, namely the implication of an event taking place with verbal passives, and lack thereof with adjectival passives. The homophonous morphology<sup>2</sup> taken together with the aforementioned differences constituted a stimulus to propose a unified analysis, which would at the same time account for the divergencies. Wasow's (1977) analysis consists in making the stative passive a lexical rule, whereas the verbal passive is taken as a transformation. The relation between an active and a passive verb is implemented as a lexical 'redundancy rule' a specific redundancy condition that stipulates positional relations between the semantic functions of an active verb and those of a passive verb (in other words, the fact that the subject of both types of passives is always 'the sole complement' of an active verb, cf. Levin and Rappaport (1986) and also Platzack (1980)). Accounts as Lieber (1980) and Bresnan (1982) postulate deriving stative passives from verbal passives in the lexicon by means of the rule of 'conversion'. Schoorlemmer (1995), on the other hand, in order to account for the pre-syntactic vs non-presyntactic character of the two constructions in question follows the approach developed in Borer (1993) labelled Parallel Morphology:

for a unitary morphological module that runs parallel to syntax and also precedes and follows it, an approach to morphology

 $<sup>^{1}</sup>$ The reader is referred to Emonds (2006), Kratzer (2000) and Embick (2004) for more tests, as well as to section 4.1.4.

<sup>&</sup>lt;sup>2</sup>Although there are of course cases, where the two morphological forms diverge, e.g. shaved vs shaven, opened vs open, dried vs dry, blessed vs blesséd.

<sup>&</sup>lt;sup>3</sup>The reader is referred to Embick (2004) for the discussion of architectural problems involved in the lexicalist treatment of adjectival participles.

named Parallel Morphology in Borer (1993).... Morphology...is a set of rules that can apply anywhere. It derives Lieber type head-adjoined structures (Lieber 1980, 1992) as illustrated in (43). The product of these morphological rules may be inserted at both D-and S-structure. Borer argues that the difference between two kinds of nominals (like Hebrew and English process and result nominals) is one of the levels at which the product of the morphological rules enters syntax. (1995, 171-173)

This type of account is also endorsed in Emonds (2000) and Emonds (2006) (cf. section 4.1.4). Recently, there appears a number of theories deriving both types of passives syntactically, but instead of relying on the timing of insertion mechanism, they propose different structural configurations for the two types of participles (cf. e.g. Kratzer (2000), Embick (2004), Anagnostopoulou (2003)). E.g. Embick (2004) employs Marantz's (cf. Marantz (1997) and subsequent work) distinction between heads merging directly with a category-neutral ROOT on the one hand, and heads merging with the category-defining head  $\nu$ . Thus, he proposes the structure for eventive passive in (7), where the participial morphology is taken to be aspectual in nature, and it merges on top of the verbal category-defining head with the feature [AG] (for 'agentive').

(7) 
$$\left[_{\text{AspP}} \left[_{\nu P} \text{ AG} \left[_{\sqrt{ROOT}P} \sqrt{ROOT} \text{ DP}_{obj} \right]\right]\right]$$

In the stative adjectival passive, on the other hand, the Aspectual head merges directly with the root:

(8) 
$$\left[ AspP \left[ \sqrt{ROOT} \right] \right]$$

In accordance with the general line adopted in this thesis, I will follow the latter way of accounting for the polysemy of the relevant morphology, although the particular implementation will be different.

#### 4.1.2 Resultative

In the meantime, however, a more fine-grained distinction arises (first noticed in Kratzer (2000)), i.e. the one between stative adjectival passive in (1a) and resultative in (1b). Kratzer (ibid.) labels the latter phrasal adjectival passive, as she argues that in the latter the participial affix adjoins to a phrasal projection VP, as opposed to stative passives (her lexical adjectival passives), where the affix merges with V. The difference between stative passives and resultatives consists in the possibility of adverbial modification: statives behave like adjectives in not allowing manner adverbs, whereas resultatives allow the latter type of adverbs:

(9) a. The package remained carefully opened.

b. \*The package remained carefully open.

Embick (2004:357)

On the other hand, the resultative also differs from verbal eventive passive in not allowing a by-phrase denoting the agent. For example (10) is argued in Embick (2004) to be only interpreted as an eventive passive (i.e. habitual in the present tense):

(10) The metal is hammered by John.

Furthermore, any agent-oriented adverbials also seem to be disallowed with resultatives (cf. Anagnostopoulou (2003)). In this sense, it seems that the resultative participle is an eventive passive without any implication of the external argument. Embick's structure for the resultative involves an aspectual head merging on top of a *fientive*  $\nu$ , which in his system is a type of BECOME operator.

(11) 
$$\left[_{\text{AspP}_R} \left[_{\nu \text{P}} \left[ \text{FIENT} \right] \sqrt{ROOT} \right] \right]$$

Although I will not consider stative or resultative passives in this thesis, as the weight of focus is distiributed differently (i.e. I am mostly concerned with the region of  $f_{seq}$  where external arguments are introduced), it is noteworthy to observe that the architecture proposed in section 1.1 have a potential to accommodate these three types of constructions:

(12) 
$$\left[-en \left[\nu P \left[-en \left[VP_{Become} \left[-en \left[RP \right]\right]\right]\right]\right]\right]$$

The stative passive would involve the relevant morphology merging on top of Result State, with resultative the affix would merge on top of  $VP_{Become}$ , and with eventive passive the participial morpheme would be merged on top of the light verb, making all the agent-oriented properties conspicuous. Although this sketchy proposal is most probably structurally equivalent to Embick's analysis, the main difference is that Embick, who does not seem to assume a universal  $f_{seq}$ , is forced to stipulate selectional properties of both  $Asp_R$  and  $\nu[FIENT]$  to the effect that  $Asp_R$  always takes a complement headed by  $\nu[FIENT]$ , and  $\nu[FIENT]$  always takes a stative complement (Embick (2004:367)).

A further difference between Embick's and the present system is that the homophonous morphology under Embick's assumptions results from underspecification: the common denominator for all the contexts (i.e. stative, resultative, verbal passive, and perfect) is an Asp head, into which underspecified vocabulary items insert phonological exponents: -en, -ed, -t. To the extent that the underspecification account of the relevant homophony might still be maintained for languages like Greek or Chichewa (cf. Anagnostopoulou (2003) and Dubinsky and Simango (1996)), which display totally different morphemes for the stative and the eventive passive, by claiming

that the relevant languages have a different exponent for  $Asp_S$  from the one for  $Asp_R$ , this position seems harder to defend for languages like Polish. Consider (13):

- (13) a. Nie-u-czesa-n-y chłopiec nikogo nie zdziwi. neg-pref-comb-PRT-sg.m boy<sub>NOM</sub> nobody<sub>ACC</sub> neg surprise<sub>3sg.pres</sub>
  'An uncombed boy will surprise nobody.'
  - b. Chłopiec został u-czesa-n-y. boy $_{NOM}$  become $_{sg.m.pst}$  pref-comb-PRT-sg.m 'The boy has been combed.'
  - c. o-mdla-**i**-y/ \*o-mdl-**on**-y człowiek pref-faint-PRT-sg.m/ pref-faint-PRT-sg.m 'a fainted man'
  - d. u-pad-l-y/ \*u-padnię-t-y anioł pref-fall-PRT-sg.m/ pref-fall-PRT-sg.m angel 'a fallen angel'

The stative passive in (13a) (diagnosed by the negative prefix), as well as the eventive passive in (13b) (diagnosed by the Auxiliary  $zosta\acute{c}$ ) both display the same morpheme -n/t. Now, however, if resultative participle involves affix merger on top of  $VP_{Become}$  (as one of the scenarios in (12)), we should look for participles formed on Themelow verbs. This is because the complement of the participial affix is in this case the exact lexical specification of Themelow. And we do find this type of participles, although with a different morphology, namely -t. They behave like resultatives in other languages in the sense of being compatible with manner adverbials (cf. (14a)), but incompatible with by-phrases (cf. (14b)) or any agent-oriented adverbials (cf. (14c)).

- (14) a. gwałtownie od-młodnia-ł-y wdowiec abruptly pref-young-PRT-3sg.m widower 'a widower that abruptly got young again'
  - b. o-głupia-ł-y (\*przez wlasną żonę) mężczyzna pref-stupid-PRT-sg.m by own $_{INSTR}$  wife $_{INSTR}$  man
    - intended: 'a man that got dumb by his own wife'
  - c. o-zdrowia-ł-y (\*specjalnie) staruszek pref-healthy-PRT-sg.m on.purpose old.man intended: 'an old man that got healthy on purpose'

If the aspectual head involved in eventive passives is the same as the one involved in resultatives, it is mysterious why they should have totally different morphological exponents<sup>4</sup> In the present system all of the relevant participial constructions would be taken as involving one and the same lexical item

<sup>&</sup>lt;sup>4</sup>A separate question is why Theme<sub>high</sub> stems in Polish do not seem to display resultative participles. I will come back to this issue later in the present chapter.

-n/t-, which undergoes up-squezing to different degrees. Hence, no resort to underspecification is necessary.

#### 4.1.3 Eventive passive vs Perfect Tense

Finally, let me turn to the last type of 'homophony' from the paradigm in (1), namely verbal passives vs active perfect participles. This one is in fact more central to the considerations in the present chapter. It seems that among the accounts taking into consideration this dichotomy, the ones proposing a unified analysis are an overwhelming majority (e.g. Hoekstra (1986a), Emonds (2000), Emonds (2006), Collins (2004), Migdalski (2006)). All of these unified analyses must face two, real or superficial, differences between passive and perfective participles:

- (i) the absence of a DP bearing ACC Case with the passive, and its presence with the perfective participle;
- (ii) the presence of agreement with the surface subject on passive, and its absence on perfective participle.

With respect to the first property, approaches diverge in two easily conceivable directions: either both participles are taken not to be able to assign an external Θ-role and ACC Case (as e.g. in Hoekstra (1986b) and Migdalski (2006)). This is taken at the same time as explaining the obligatory nature of the Auxiliary HAVE, whose function is to introduce an external argument and assign ACC to the object. The other alternative is to assume that the ACC Case assigning potential remains untainted for both perfective and passive participles, and contra Chomsky (1981:50). This approach is exemplified by Collins (2004) and Emonds (2000) among others.

The proposal in Collins (2004) is important also in the context of the present thesis, as it does away with one major fault of the standard account of passives, namely the very different ways of  $\Theta$ -role assignment in the active and in the passive sentence, the latter involving  $\Theta$ -role absorption and transmission (cf. e.g. Jaeggli (1986)). Collins assumes that the external argument in the passive is introduced in exactly the same position as the external argument in the active, i.e. in his Spec, $\nu$ P. Furthermore, he also takes the preposition by to be heading VoiceP located on top of the light verb<sup>5</sup>. The uniform way of introducing an external argument for both active and passive sentences will also be adopted in the present thesis. Differently from Collins' proposal, however, this argument will be taken as introduced as a PP. Coming back to Collins's uniform analysis, for him both passive and perfect participle head a PartP located in between the two verbal shells:  $\nu$  and V. This PartP consists purely of uninterpretable features, and therefore requires licensing. Collins proposes that there are two ways in which a participle can be licensed:

 $<sup>^5</sup>$ This assumption faces a problem to the effect that the by-phrase does behave as a constituent with respect to e.g. movement. In view of this fact Collins is forced to assume movement of intermediate projections - an assumption controversial in itself.

- (i) being c-selected by the auxiliary have, or
- (ii) moving to Spec, VoiceP

The former strategy is employed in perfect participles, whereas the latter is at work in passives. In the perfect participles ACC is assigned in the usual way, whereas in the passive, according to Collins, the semantically empty by in Voice checks ACC on the DP in Spec, $\nu$ P in a manner analogous to the way prepositional complementizer for checks Case of the DP in Spec,IP. The superficial effect of lack of ACC in passives arises due to the fact that the function of Case checking present on the 'active'  $\nu$  is dissociated from the 'passive'  $\nu$  - essentially a 'flavor' type of approach, forced to stipulate selectional restrictions (cf. section 1.2).

ACC Case retainment under verbal passive is further substantiated in Emonds (2006). His argument is double object verbs, in which the second argument seems to be able to receive ACC Case in eventive passives.

- (15) a. Ann was [ given the letter ].
  - b. Who got [ taken such unfair advantage of ]?
  - c. A lot of vacation was (being) [ allowed the workers ].
  - d. The workers were (being) [ allowed a lot of vacation ].
  - e. That letter was [sent all the candidates].
  - f. Peter was (being) [forgiven his sins].
  - g. Peter's sins were (being) [forgiven him].
  - h. He was (being) [ charged a lot of money ].

(Emonds (2006:9))

In Polish Dative Goals never passivize. There is nothing wrong, however, in general with passivization of these predicates, as shown by examples where the Theme is promoted.

- (16) a. \*Anna została od-da-n-a list.  ${\rm Anna}_{NOM} \ {\rm become}_{3sg.pst} \ {\rm pref-give-PRT-sg.f \ letter}_{ACC}$ 
  - b. List został od-da-n-y Annie.  ${\rm letter}_{NOM.sg.m} \ {\rm become}_{3sg.pst} \ {\rm pref-give\text{-}PRT\text{-}sg.m} \ {\rm Anna}_{DAT}$
  - c. \*On $_{sg.m}$  został wybacz-on-y wszystkie grzechy. he $_{NOM}$  become $_{3sg.pst}$  forgive-PRT-3sg.m all $_{ACC}$  sins $_{ACC}$
  - d. Wszystkie grzechy zostały mu  $\operatorname{all}_{non-vir}$   $\operatorname{sins}_{non-vir}$  become $_{3pl.non-vir}$   $\operatorname{him}_{DAT}$  wybacz-on-e. forgiven-PRT-non-vir

I take the inability of Dative indirect object to raise under passivization as flowing from some other property of Polish<sup>6</sup>. On the other hand, I follow

<sup>&</sup>lt;sup>6</sup>The relevant property might have to do with morphological case, as Polish is in this

Emonds (2006) in taking the English evidence in (15) as indicating availability of ACC Case on the object in verbal passives. I take the presence of NOM argument to be obligatory, and the superficial lack of ACC object in passives to stem from the fact that no other argument is available to bear ACC in monotransitive verbs. For this reason it is only ditransitives, where the relevant ACC-bearer is present.

So far then, the first of the two relevant properties indicates to a similarity between passive and perfective participles. In spite of this, I would like to suggest that there is substantial evidence to the effect that passive and perfective participles cannot be structurally identical. Firstly, the type of evidence supporting Collins' purported lack of differences between the two participles is the total morphological identity of passives and perfect participles in English. Yet, there are languages where the two differ morphologically, e.g. in Swedish the so-called 'supine' shows a different form for a lot of verbs from the equivalent passive participles:

passive prt	supine	gloss
arbetad	arbetat	work
sydd	sytt	sew
biten	bitit	bite
faren	farit	travel

Table 4.1: Swedish passive and perfect participles

Since the Swedish supine is syntactically comparable to the English Present Perfect (i.e. it occurs with the Auxiliary HAVE, and have exactly the same semantic interpretation), it seems that the two constructions should receive similar treatment in both languages. Furthermore, following the reasoning developed for the stative vs eventive participles, if the morphological divergencies might indicate different structural positions, then we have the first reason to reject the unified analysis à la Collins.

Secondly, the two types of participles behave differently syntactically. For example, as noticed in Platzack (1980), the supine behaves as a finite verb with respect to particles, whereas the passive participle<sup>7</sup> requires the particle to incorporate into it.

- (17) a. Han har kastat bort böckerna. (\*bortkastat) 'He has thrown away the books.'
  - b. Böckerna är bortkastade. (\*kastade bort) lit. 'The books are awaythrown.'

Platzack (1980:47)

respect similar to Icelandic, but different from all the other Germanic languages.

 $<sup>^7</sup>$ There is some terminological confusion here: what I label 'passive participle' here is Platzack's 'past participle'.

Finally, let us turn to the other major difference between the passive and the perfect participle, namely agreement. Emonds (2000) and Emonds (2006) argue for the adjectival categorial status of all participles<sup>8</sup>. The arguments concern adjectival inflection, as well as external distribution. However, it seems that all the amassed arguments are only relevant for passive participles (of the agreeing type), and hence the adjectival status is only uncontroversial for them. Thus, they inflect for number and gender, but not for person (differently from finite verbs) (cf. e.g. the grammatical examples in Polish (17)). Emonds (2000:192-6) claims that also Ukrainian transitive impersonal passives are adjectives:

(18) Cerkv-u bul-o zbudova-n-o v 1640 roc'i. church-ACC/FEM was-IMP built-PASS-IMP in 1640 It/There was built this church in 1640.'

Emonds (2000:192)

This example is originally from Sobin (1985). The latter, however, observes that  $-\mathbf{o}$ , glossed as IMP (for impersonal), does not belong to the adjectival morphological paradigm. In other words, the neuter singular adjectival ending in Ukrainian is  $-\mathbf{e}$ . The same is true of Polish Impersonal -NO/TO construction. The invariable ending  $-\mathbf{o}$  might be either the neuter singular verbal ending (as in rob-i-l-o (do-TH-pst-sg.neut; 'it was doing') or the nominal neuter declension class suffix (as in okn-o ('window'), biodr-o ('hip')). In spite of this fact, Sobin (1985) argues for the neuter singular adjectival analysis of  $-\mathbf{o}$ , which purportedly stands in agreement with the empty deep subject. The argument is based on the existence of weather expressions with a lexically empty subject, where the adjectival ending is  $-\mathbf{o}$ , rather than  $-\mathbf{e}$ :

- (19) a. S'ohodn'i dušno. today sultry 'Today is sultry.'
  - b. Bulo duže dušno.'It was very sultry.'

Sobin (1985:656)

However, Polish data seems to suggest that the purported neuter adjectival endings in (19) are in fact one of the two adverbial suffixes: -o and -e. In this sense, (i) -o in weather expressions is no general rule (cf. (20a) vs (20b)) but is simply listed with particular roots, and (ii) the suffix has nothing to do with the lexically empty subject (cf. (20c)):

(20) a. Wczoraj było duszn-o/ zimn-o/ deszczow-o. yesterday be $_{3sq.n.pst}$  sultry/ cold/ rainy.

<sup>&</sup>lt;sup>8</sup>Section 4.1.4 contains more details on this specific proposal.

- Wczoraj było b. mgliści-e/ wietrzni-e/ słoneczni-e yesterday be<sub>3sq.n.pst</sub> foggy/ windy/ sunny
- Marek ubrał się ciepł-o. c. Marek get.dressed $_{3sq.m.pst}$  refl warm 'Marek got dressed warmly.'

Therefore, I conclude that neither in Polish nor in Ukrainian is the inflection on the invariant impersonal passive participle adjectival in nature. If, however, the relevant participle turns out not to be adjectival, then it seems Emonds' analysis of impersonal passives is in danger since it crucially relies on the adjective having to agree with both its surface subject and its object, the end result being obligatory coindexation between these two positions. Faced with the lack of evidence for the adjectival inflection on perfect participles, Emonds (2000:200) argues that this is because agreement is a way to check ACC Case, and the perfective participle is marked in the lexicon for quirky ACC. For this reason it does not need to have its case checked. and is selected by the Auxiliary HAVE. Thus, his lexical entry for perfective participle is in (21):

#### Perfective participle entry: en, A, +<V >, ACC, -PROPERTY (21)

Even assuming this reasoning could be accepted, there are other problems beyond agreement that the adjectival analysis of perfective participles has to face. Before turning to the latter, however, it is noteworthy to make one cross-linguistic observation. It seems that languages vary with respect to the form of the invariant suffix on the perfective participle. Thus, in Polish and Ukrainian the suffix 'reminds' a neuter adjectival ending, as observed above, whereas in Arumanian it bears resemblance to the feminine gender suffix (cf. (22)), and in Megleno-Romanian to the masculine gender suffix (cf. (23)):

(22)Am vidzută/ vinită  $have_{1sg} seen_{PASS.F} / come_{PASS.F}$ 'I have seen/ come.'

Gallis (1960:180)

(23)Nu lvizut di am lunj neg  $him_{CL}$  have<sub>1sg</sub> see<sub>PASS.M.SG</sub> from Monday 'I haven't seen him since last Monday.'

Tomič (2006:378)

To the extent that for Polish and Ukrainian it might still be maintained that -o is a default agreement with a covert pro<sub>arb</sub>, this solution seems unavailable for Arumanian and Megleno-Romanian Perfect Tense, as this is not the context for the default gender agreement (as both external and internal arguments are overtly present and their gender features do not influence the shape of the participial inflection). Therefore, it seems that no spell out of agreement features (cf. Emonds' theory in section 4.1.4 below) is relevant for the participles in (22) and (23). If in turn the relevant participles do not show gender agreement, they cannot be adjectives. Why then should the morphological shapes be so arbitrary across languages? I submit that this is because the relevant suffixes are in fact nominal in nature (cf. the common Slavic feminine noun suffix -a, as well as consonant-final masculine nouns).

For Polish Impersonal -NO/TO construction, however, things are a little more complicated. I have argued above that the suffix -o does not belong to the adjectival paradigm. Yet, it could in principle be a default neuter verbal agreement -o. The context (i.e. covert  $pro_{arb}$ ) is appropriate for the spell out of default agreement and default gender for verbs in Polish is neuter indeed, as shown in (24) with a quantified argument denoting mixed (i.e. non-virile) groups.

(24) Na zebranie przyszł-**o** wielu rodziców. to meeting come-**sg.n** many parents 'Many parents came to the meeting.'

When deciding between default verbal paradigm and nominal declension morphology, one might take into consideration the fact that finite verbs in Polish always inflect also for Person (these are in fact reduced forms of Auxiliaries, cf. Migdalski (2006) for an analysis). However, if the feature specification of  $pro_{arb}$  is 3, as it cannot be interpreted as a participant, then the lack of Person agreement inflection in Polish is a norm. In spite of this type of evidence, I propose that the invariant -o present in Polish Impersonal construction is in fact a nominal inflection marker (cf. biodr-o ('hip'), kot-o ('wheel')). This decision, as arbitrary as it might be at this point, will in fact yield desirable results in section 4.2 to the effect that it will derive obligatory Past interpretation of the relevant construction.

Finally, let us turn to problems with adjectival analysis of transitive impersonal and perfect participles related to their external distribution. For the time being I put aside the Polish Impersonal -NO/TO construction, since it behaves differently for reasons to be explicated in section 4.2. It is true that neither Ukrainian transitive passive participle nor Swedish supine have external distribution of verbs, as shown in (25) (Ukrainian) and (26) (Swedish)<sup>9</sup>:

(25) a. Xlopet' xotiv vzja-ti/ \*vzja-t-o lista. boy wanted take-inf/ \*take-PRT-o letter 'The boy wanted to take the letter.'

<sup>&</sup>lt;sup>9</sup>This implies that the supine occurring without an Auxiliary in embedded clauses in Swedish involves Auxiliary ellipsis. Analysis of this type can be found in e.g. Julien (2002a).

- b. Či možeš ti zbudova-ti/ \*zbudova-n-o bašta? Q can you build-inf/ \*build-PRT-o tower 'Can you build the tower?'
- c. Ja znaju šo Ivan pročitav/ \*pročita-n-o knigi. I know that Ivan  $\operatorname{read}_{pst.3sg.m}$ / \*read-PRT-o books 'I know that Ivan read the books.'

(Michael Timtjenko, p.c.)

- (26) a. Pojken vill ta/\*tagit brevet. boy.the will  $take_{inf}/*take_{pf.prt}$  letter.the 'The boy will take the letter.'
  - b. Han hoppades att ge/\*givit många klappar. he hoped to  $\text{give}_{inf}/\text{*give}_{pf,prt}$  many presents 'He hoped to give many presents.'
  - c. Vi la Jon undersöka/\*undersökt oss. we let Jon examine $_{inf}$ /\*examine $_{pf.prt}$  us 'We let John examine us.'

However, nor do the relevant participles have adjectival distribution, as shown in (27) (Ukrainian) and (28) (Swedish):

(27) Pirog smakuje najkrashe zgotova-n-ij/ \*zgotova-n-o za Martinim cake tastes best cook-PRT-3sg.m/\*cook-PRT-o with Martin's reseptam.

recipe

'The cake tastes best cooked according to Martin's recipe.

- (28) a. Läkaren undersökte patienten  $\arg/$  ned-supen/  $\operatorname{doctor.the\ examine}_{pst}$  patient.the  $\operatorname{angry}/\operatorname{down-drunk}_{pass.prt.sg}/$  \*supit ned. \* $\operatorname{drunk}_{pf.prt}$  down
  - b. Med taket om-lagt/ fönstrena tvättade/ \*taket with roof.the re-done pass.prt.sg/ windows washed pass.prt.pl/ roof.the lagt om/ \*fönstrena tvättat började han att röja i lay pf.prt again/ windows wash pf.prt start pst he to clean in trädgården. garden.the 'With the roof redone/ windows washed, he began to clean the garden.'

(Cecilia Hemming, p.c.)

Recapitulating the results of this section, I have argued that the participles present in some transitive impersonal constructions as in Ukrainian or Polish (although no common analysis is implied), as well as perfect participles in other Germanic, Romance or Slavic languages should not receive an analysis

structurally identical to the one for agreeing passive participle. The following evidence in favor of this hypothesis has been adduced:

- morphological differences between passive and perfect participles in Swedish;
- different syntactic behavior with respect to particle incorporation between passive and perfect participles in Swedish;
- real rather than superficial difference in category status between passive participle on the one hand, and transitive impersonal and perfect participle on the other, i.e. the adjectival status of the former vs the nominal status of the latter. This hypothesis has been substantiated by several types of consideration: (i) both Ukrainian and Polish invariant participle suffix has been shown not to belong to adjectival inflectional paradigm; (ii) arbitrary character of the invariant suffix crosslinguistically in Perfect Tense has been argued to exclude the 'default verbal agreement' hypothesis (iii) external distribution of Ukrainian invariant participle, as well as Swedish perfect participle has been shown to be neither that of verbs, nor of adjectives (Polish -NO/TO aside for the time being). Somewhat prematurely, all of the relevant participles were taken to be nominal in nature. Although the Perfect Tense participles are not central to the present thesis, for Impersonal -NO/TO in Polish this assumption will yield desirable consequences in section 4.2.

In section 4.2 I will try to give a detailed account of Polish Impersonal -NO/TO construction, and in section 4.3 I will compare the three different constructions involving the same participial morphology in Polish, i.e. agreeing Periphrastic Passive, productive nominalization in -nie/cie, and Impersonal -NO/TO, arguing that all of them represent different degrees of up-squeezing of the same lexical item -n/t- by the Theme<sub>high</sub>. Before I embark on this task, however, it is noteworthy to review one more theory of participial morphology in detail, as it has much in common with the present account.

### 4.1.4 Emonds (2000)

Two fundamental assumptions, shared also by the present work, underly the theory in Emonds (2000):

- 1. acknowledging the central role of the bifurcated model of the lexicon for syntactic computation;
- 2. deriving the typology of participial constructions by means of different levels at which the relevant morphology occurs.

Let me start with the bifurcated model of the lexicon. Emonds (2000) distinguishes between two types of features:

- (i) a small range of cognitive syntactic features F, which contribute centrally to the interpretation at Logical Form when they are 'canonically realized' (i.e. for instance PAST on I, ANIMATE on N, etc.);
- (ii) purely semantic features f, which play no role in syntax (e.g. color terms are taken to share a certain semantic feature  $f_i$ , which allows  $dark\ pink$  and  $light\ magenta$ , as opposed to \*dark smooth or \*light dirty.

This distinction constitutes a criterion for the division within the lexicon into the Dictionary and the Syntacticon. Purely semantic features f are limited to the items in the Dictionary, i.e. the four open lexical classes: V, N. A. P. Items in the Syntacticon, on the other hand, are characterized by the total absence of purely semantic features f. They are a closed class and possess a number of properties which distinguish them from the members of the Dictionary, e.g. they allow phonetically zero morhemes and full suppletion within paradigms, and do not interface with non-linguistic memory or culture in any way. This bifurcation within the lexicon corresponds in the present work to the distinction between ROOTs and functional vocabulary items (cf. section 1.2)<sup>10</sup>. The former do not participate in syntax at all, and in this sense, however intricate their conceptual content is, it does not require any lexical specification that might be later exploited for syntactic purposes. The latter, on the other hand, are lexicalized chunks of the universal functional sequence, and in this sense play a crucial role in syntactic computation. Thus, Emonds' lexical entry for an open class item @ of category X is as in (29) (with the cognitive syntactic features  $F_i$  and the purely semantic features  $f_i$ ). My lexical entry adapted to Emonds' terminology is in (30a) for the member of the Dictionary @, and (30b) for the member of the Syntacticon \(\mathbb{Z}\):

(29) 
$$@, X, F_i, f_i, + F_k$$
 (Emonds (2000:43))

Subcategorization is satisfied if and only if  $F_k$  is the cognitive syntactic feature of a lexical head of the complement.

(30) a. @, 
$$f_i$$
,  
b.  $\mathfrak{A}: [F_n, F_{n+1}, F_{...}, F_m]$ 

The only information associated with the member of the Dictionary is semantic features  $f_i$  and the member of the Syntacticon  $\square$ that it selects for.

<sup>&</sup>lt;sup>10</sup>The reader will observe that the two mentioned properties of items in the Syntacticon follow under the present assumptions: ROOTs do not undergo *lavish insertion* and therefore, no 'zero morphemes' are allowed; for the same reason no suppletion is allowed since ROOTs do not form paradigms (where paradigms are in fact defined as items in a subset-superset lexicalization relation, e.g. positive-comparative suppletion or present-past suppletion).

The specification of the latter in (30b) includes the subsequence of  $f_{seq}$  that it can be inserted for. Two things that appear redundant in the lexical entry in (29), in comparison to (30a), are: (i) category specification X, and (ii) feature specification of the selected head (i.e.  $F_k$ ). As for the former, I will in fact argue in section 4.3.10 that major category distinctions (i.e. N, V, A, putting aside P) follow from the level in  $f_{seq}$  at which Event Separator merges. In other words, it follows from the lexical properties of  $\square$ . The latter specification, on the other hand, follows for free from the principles of UG. Since under the present assumptions arguments are introduced by the functional heads in the lexical specification of  $\square$ , it follows that they can only bear features lexicalized by  $\square$ , i.e.  $F_n$ ,  $F_m$ ,  $F_m$ , but not e.g.  $F_{m+1}^{-11}$ . In this sense, the approach in Emonds (2000), as well as the present work, instantiates the strand of research initiated by Borer (1984), where all crosslinguistic variation reduces to different lexical properties of particular items. Emonds formulates it as in (31):

(31) Language-particular syntax resides entirely in lexical specifications, namely the inherent and contextual feature combinations associated with closed class items. (Emonds (2000:114))

This brings us to the other, participle-specific, underlying assumption of Emonds (2000), i.e. a different relations of Dictionary and Syntacticon respectively to syntactic derivation. Whereas members of the Dictionary are subject to *Deep Lexicalization* in (32), Syntacticon items can be inserted at different levels, in accordance with (33).

- (32) Deep Lexicalization (DL). Items associated with non-syntactic, purely semantic features f must satisfy lexical insertion conditions (just) before syntactic processing of the smallest cyclic domains containing them (...). (Emonds (2000:117))
- (33) Multi-Level Lexical Insertion. Lexical Items from the Syntacticon, in accord with their feature content, can be inserted at different stages of a derivation, via the Dictionary ("deep structure"), during a syntactic derivation, and during a phonological derivation.

(Emonds (2000:117))

Emonds' account hinges on the essentially adjectival character of the participial morpheme -en (in its both adjectival and verbal passive instantiation), and equates the relevant morpheme with other derivational morphology (adjectival passives), and inflectional morphology (verbal passives). Inflectional morphology, in turn, is in Emonds' system Alternative Realization

<sup>&</sup>lt;sup>11</sup>This will be true either (i) in virtue of Spec-head agreement, or (ii) trivially in more radical frameworks doing away with the notion of Specifier.

- (AR) of features contributing to LF.
- (34) Unmarked AR morphemes. A bound morpheme alternatively realizing  $F_i$  with no marked notation in the Syntacticon appears only when it zeroes the canonical position of  $F_i$ .

The choice of inflectional morphemes is dictated by Economy reasons, as they allow given Logical Forms to be derived with fewer insertion of free morphemes from the Syntacticon. *Alternative Realization* is defined as in (35):

(35) Alternative Realization. A syntactic feature F canonically associated in UG with category B can be alternatively realized in a closed class grammatical morpheme under  $X^0$ , provided  $X^0$  is the lexical head of a sister of  $B^j$ .

Under this set of assumptions, the proposal is that the passive morpheme -en alternatively realizes phi-features of the direct object (i.e. Person, Number, Gender), notated as  $\varnothing F$ :

(36) Passive participles: en, A, +<V $_>, <math>\varnothing$ F

Now, since all canonical features of the object are alternatively realized, the object may be empty<sup>12</sup>. Furthermore, by (34), the DP object not only may, but must be an empty category, i.e. an NP trace. This explains the restriction on passive participles to transitive verbs. As for the obligatory movement of the object in both adjectival and verbal passives, this is forced by the fact that an adjectival in nature participle needs to be co-indexed not only with the direct object position (due to phi-feature agreement), but also with the surface subject position by virtue of standard adjectival agreement. By transitivity of co-indexing, this yields obligatory movement from the object to the subject position.

Now, the part of the proposal that bears on the analysis to be presented here relates to the differences between adjectival and verbal passives. I only enumerate the differences evoked by Emonds, as I am not concerned with adjectival passives in the present work:

- 1. ongoing vs completed reading in verbal and adjectival passives respectively;
- 2. various Spec(AP) freely modify only adjectival passives:
  - (37) a. The garden seemed too overlanted.

<sup>12</sup> This is guaranteed by *Invisible Category Principle (ICP)*. If all marked canonical features F on B are alternatively realized by AR (4.20), except perhaps B itself, then B may be empty. (Emonds (2000:135))

b. The garden is being (\*too) overplanted.

Emonds (2000:176)

- 3. only adjectival passives take the adjectival prefix un- (i.e. uncut, un-known vs \*unpreceded, \*unleft);
- 4. only verbal passives have the full internal structure of VPs;
- 5. idiomatic object nouns occur freely only in verbal passives:
  - (38) A great deal was (being) made/got made/ \*sounded made of your resignation.

Emonds (2000:178)

6. only verbal passives have an overt or understood subject.

Now, the above differences are derived by inserting the participial morpheme at different levels. If the unspecified part in the entry in (36) contains some cognitive feature F (i.e. in this case PROPERTY), the insertion level has to be prior to Spell Out, corresponding to adjectival passives, as in (39):

 $(39) \qquad (seem) \ [_A \ [_V \ know] \ [_A \ n]]; \ [_A \ un \ [_A[_V \ paint]][_A \ ed]]]$ 

Emonds (2000:165)

For verbal passives, however, the essentially adjectival participle is not interpreted as PROPERTY, and hence needs to be specified in the lexicon as Emonds' marked Absence of Content:

(40) Passive participles: en, A, +<V >,  $\varnothing$ F, (-PROPERTY)

Now, as the marked absence of content does not contribute to LF, but is purely a 'place-holder' for unidentified syntactic positions, the morpheme is inserted late, i.e. by *Phonological Lexicalization*. This situation yields verbal passives in (41):

 $(41) \qquad (get) \ [_{A[V} \ know][_{A} \varnothing]]; \ [_{A[V} \ paint][_{A} \varnothing]]$ 

In the above sense, V is the lexical head of a verbal passive at every syntactic level.

Now, Emonds is obviously aware of the existence of intransitive and transitive impersonal passives in other languages. An example of the former is Norwegian (42), and the latter Ukrainian  $(43)^{13}$ :

(42) Det vart gestikulert.

Norwegian

<sup>&#</sup>x27;\*It/There was gesticulated.'

<sup>&</sup>lt;sup>13</sup>The glosses are kept as in Emonds (2000).

(43) Cerkv-u bul-o zbudova-n-o v 1640 roc'i. *Ukrainian* church-ACC/FEM was-IMP built-PASS-IMP in 1640

Emonds (2000:192)

Consistently with his assumptions relating to cross-linguistuic variation, Emonds proposes that the relevant morphemes are specified as in (44) for English, (45) for Ukrainian, and (46) for languages allowing only intransitive impersonal passives, e.g. German:

- (44) English: -en, A, +< V >, (-PROPERTY),  $\varnothing$ F
- (45) Ukrainian: -en, A,  $+< V_{\_}>$ , (-PROPERTY),  $\underline{\varnothing}F$
- (46) German: -en, A,  $+ < V_{\_} >$ , (-PROPERTY),  $(\varnothing F)$

The underlined notation  $\underline{\varnothing}F$  in (46b) stands for the marked value of features, in which case the DP object can be overt, by marked use of *Alternative Realization* - a case claimed by Emonds to be parallel to clitic doubling. The parenthesized notation ( $\varnothing$ F) in (46c), on the other hand, indicates that both the relevant features, as well as their source features are optionally absent. The following questions arise with respect to this type of analysis.

Firstly, if the main function of -en under Emonds' analysis is to spell out phi-features of the object, the question arises why in transitive impersonal passives there is never any agreement with the object, even if the object is fronted, as in Ukrainian (43). Under Emonds' assumptions the lack of agreement in 'perfectives' follows from the fact that the perfective participle, with the entry in (47), is selected by the auxiliary HAVE, with the entry in (48):

(47) Perfective participle entry: en, A, +<V\_>, ACC, -PROPERTY

Emonds (2000:201)

(48) have/avoir, V, STATIVE,  $+< X_{ACC}>$ 

Emonds (2000:198)

Because of the lexical specification in (48), perfective -en must be marked in the Syntacticon for quirky ACC case. AP complements to V which are lexically not marked for case, are claimed to be assigned case by virtue of phi-feature agreement with the Subject. In that sense, the existence of Ukrainian transitive passive, or Polish -NO/TO is surprising since neither are the complements selected by HAVE, nor do they show agreement with the subject. The question concerning the way they are assigned case then remains a mystery.

A further issue relates to the existence of intransitive passives (cf. the entry in (46)). In view of the main tenet of the proposal, i.e. conceiving of participial morphology as AR of objects' phi-features, the fact that intransitive passives are attested is quite surprising, since in these cases there are no source DPs for the -en to spell out their phi-features. In this sense it is surprising why the verb should undergo this sort of 'adjectivization' at PF at all. In other words, making the features  $\varnothing$ F optional seems to belie the very essence of the hypothesis about the nature of participial morphology. Finally, a more general concern arises with respect to the gist of Emonds' hypothesis: it is precisely in Slavic languages that we see that the 'participial' morphology is decomposable into -n/t- and phi-feature agreement or lack thereof, as the same 'participial' morpheme is used in other constructions, as e.g. in productive nominalizations in Polish (49), where no AR of phi-features seems to be relevant:

(49) pływa-n-ie/ czyta-n-ie książki swim-PASS-??/ read-PASS-?? book<sub>GEN.sg</sub> 'swimming/ reading a book'

Since -ie does not even belong to the adjectival agreement paradigm (cf. czytan-y (sg.m), czytan-a (sg.f), czytan-e (sg.n/non-vir), czyta-n-i (vir.)), the task of incorporating this use of the 'participial' morphology into Emonds' combined lexical entry would be quite hard, if possible at all. If, in turn, -en seems to be decomposable into -n/t- (whatever the analysis for the latter) and inflectional morphology, the function of Emonds' Alternative Realization should rather be ascribed to the latter. In that case, however, it remains a mystery what 'participial' morphology of the -n/t- type really is. Last but not least, any attempt at proposing one combined entry for an abstract 'participial' morpheme -en as in (50):

seems rather too far-fetched in view of the previously discussed morphological divergences in Swedish between passive and perfective participles (i.e. skrivet (pass.prt.sg.n) vs skrivit (perf.prt)). This fact seems to indicate that lexical entries cannot be defined for abstract items, but have to refer to specific morphemes present within a given language. This point also concerns morphological divergences discussed in the previous section between English purely adjectival participles (e.g. shaven) vs those that are ambiguous between adjectival and verbal uses.

## 4.2 -NO/TO revisited.

Now, with the conclusions from section 3.2 under our belt, we can proceed to set -NO/TO against a broader background, which will hopefully allow us to make a specific proposal with respect to the relevant Polish construction. For the sake of the argument, let's assume that -NO/TO is a regular Passive and as such it is merged in Voice<sub>Pass</sub> (still keeping the traditional Kratzerian label). Since I established in section 3.2 that it behaves as Periphrastic Passive in requiring the presence of  $\nu$  (diagnosed by the presence of high Themes), that seems to be a reasonable assumption.

This assumption, however, cannot be maintained in the present form for a number of reasons.

#### Ordering problems

Firstly, -NO/TO can attach to some modal verbs, as illustrated in (51):

- (51) a. Musia-n-o to zrobić. obligation must-PRT-o this do 'Someone had to do it.'
  - b. Nie umia-n-o się z tego wytłumaczyć. ability neg know.how-PRT-o refl from this explain 'Someone didn't know how to explain this.'
  - c. Chcia-n-o go powstrzymać. volition want-PRT-o him stop 'Someone wanted to stop him.'

Musieć ('must') is ambiguous between epistemic and root modality. Now, it seems crucial to observe that (at least for some speakers, myself included), (51a) can have both of these readings. This is particularly conspicuous in two different contexts: (52a) and (52b), both acceptable:

- (52) a. Musia-n-o to wykonać, bo zbliżał się termin.
  must-PRT-o this do, because approached refl deadline
  'Someone had to do this because the deadline was approaching.'
  - b. Musia-n-o wyjechać, bo drzwi były zamknięte. must-PRT-o leave, because doors were locked 'Someone must have left because the door was locked.'

Moreover, -NO/TO is also perfectly grammatical attached to raising verbs like  $wydawa\acute{c}$  sie ('seem') and  $okaza\acute{c}$  sie ('turn out'):

- (53) a. W sąsiednim pokoju wydawa-n-o się słuchać radia. in neighboring room seemed-PRT-o refl listen $_{inf}$  radio $_{GEN}$  'It seemed someone was listening to the radio in the neighboring room.'
  - b. Okaza-n-o się być duszą towarzystwa. turn.out-PRT-o refl beinf soul society

'Someone turned out to be the soul of the company.'

These facts are surprising when compared with the impossibility to passivize modals or raising verbs in English (54) or Polish Periphrastic Passive (55):

- (54) a. \*Mary was musted be kissed.b. \*Mary was seemed to have arrived.
- (55)a. \*Ktoś był musia-n-y zrobić to. somebody was must-PRT-3sg.m  $\mathrm{do}_{inf}\,$ it
  - b. \*Ktoś był wydawa-n-y się słuchać radia. somebody was seem-PRT-3sg.m refl listen $_{inf}$  radio $_{GEN}$

There is one modal verb,  $m\delta c$  ('may/can') expressing both epistemic modality and alethic possibility, permission or ability. In none of the uses is it acceptable under -NO/TO:

(56) \*Moż-n-o to zrobić. can-PRT-o this do intended: Someone could/ was allowed to do this.'

The remaining modals are not really verbal or are at least defective, and hence the possibility of forming -NO/TO might not be informative. These include: powin-ien/na/no ('should'),  $nale\dot{z}y$  and trzeba (both general necessity).

It is instructive at this point to have a look at the relevant fragment of Cinque's  $f_{seq}$  (cf. Cinque (1999)), where modals are treated as functional projections in the extended projection of the verb:

(57)

Given (57) and the functional hierarchy approach to Passive morphology (cf. Cinque (1999), Cinque (2001), Cinque (2003)), one might envisage placing the Impersonal Passive somewhere between  $\text{Mood}_{possibility}$  and  $\text{Mood}_{volition}$ . That assumption, however, would come with an implication that all the verbs to the left of  $\text{Mood}_{possibility}$  would not be able to lower to pick up the Passive morphology, and the opposite prediction for all the verbs to the right of  $\text{Mood}_{possibility}$ . In that situation the ability of epistemic readings of modals to form -NO/TO remains unexplained, and so does the lack of Impersonal Passive of permission modal.

The next question is the obligatory Past interpretation of -NO/TO. One might initially postulate that Passivization happens higher than the level of  $T_{Past}$ . That, however, would still not explain why -NO/TO cannot embed a non-past (i.e. present or future, depending on the aspectual properties) tense morpheme if  $T_{past}$  is supposed to occupy a place higher in the hierarchy than  $T_{future}^{14}$ 

Another question that arises is whether Impersonal -NO/TO could in principle embed an agreeing Periphrastic Passive. This prediction follows from the functional approach to Passives. Since Periphrastic Passive is never able to attach to modals, it must be located lower than the Impersonal Passive. This prediction is in fact borne out, though with an additional quirk, which seems to me to invalidate the functional monoclausal analysis of Impersonal -NO/TO construction<sup>15</sup>.

- (58) a. Zost-a-n-o okrzyknię-t-y-m królem przez become-aj-PRT-o proclaim-PRT-3sg.m-INSTR king by poddanych.
  subjects
  - 'Someone has been proclaimed king by the subjects.'
  - b. \*By-t-o źle traktowa-n-y-m. be-PRT-o badly treat-PRT-3sg.m-INSTR intended: 'One has been treated badly.'

- (i) a. krzycz-y-sz vs krzycz-a-t vs krzycz-a-no shot-pres?-2sg vs shout-?-past vs shout-?-NO
  - b.  $ka\dot{z}\text{-}e\text{-}sz$  vs kaz-a-t vs kaz-a-no order-pres?-2sg vs order-?-past vs order-?-NO
  - c. chor-uj-e-sz vs chor-ow-a-t vs chor-ow-a-no be.sick-TH-pres-2sg vs be.sick-TH-?-past vs be.sick-TH-?-NO

<sup>&</sup>lt;sup>14</sup>Yet, something resembling remnants of the Polish overt Past Tense marker -*l* is detectable in -NO/TO forms. Thus, it has been noted in section 2.2.1 that certain conjugation classes show alternations in the thematic vowel depending on the Tense morpheme that they are adjacent to. These include -*e*-, -*a*- and -*owa*- stems. Compare present, past and -NO/TO forms of these conjugation classes:

<sup>(</sup>i) seems to indicate that the structure involving passive participial morphology in fact includes the structure relevant for active -l participles. Yet, the final -l seems to be deleted. One might argue that it is deleted for phonological reasons. That, however, would conflict with the fact that Polish equivalent of -able seems to be composed of an active and a passive participial morphology, but -l does not get deleted in this case, i.e. we get -aln-y. Hence, the curious contrast in (i) should not probably be thought of in terms of [-n/t-[-l]], but rather: whatever triggers the allomorphy in the past -l participle, also triggers it in the impersonal one.

 $<sup>^{15}</sup>$ It is interesting to observe that the case on the embedded participles with adjectival paradigm is INSTR, as in all other contexts involving pro/PRO (cf. also section 5.4).

B-ywa-no źle traktowa-n-y-m.
 be-SI-PRT-o badly treat-PRT-3sg.m-INSTR
 'Someone has been (repeatedly) treated badly.'

What is interesting about (58) is that the 'double Passive' is possible on the auxiliary  $zosta\acute{c}$  ('become') and  $bywa\acute{c}$  ('be $_{SI}$ '). Yet, the latter needs to be in its Derived Imperfective form. When it is underived, as in (58b), the sentence is out. Now, under the functional monoclausal analysis of Passive there is no way to derive that fact. To wit, there is no way that the Passive morphology can show sensitivity to the presence of Secondary Imperfective on the Auxiliary. In fact, there isn't even any way for the auxiliary to acquire the SI morphology, as it is taken to be a functional head. Moreover, SI is a higher aspectual projection, which seems however to be also embedded under the agreeing Periphrastic Passive, as shown in (59), assuming the Mirror Principle holds (cf. Baker (1988)):

(59) Plan jest aktualnie roz-rys-ow-ywa-n-y. plan $_{sg.m}$  be $_{3sg.pr}$  now pref-draw-TH-SI-PRT-sg.m 'The plan is currently being sketched out.'

With the hypothetical monoclausal structure in (60), where Voice<sub>1</sub> corresponds to the agreeing Passive, and Voice<sub>2</sub> to the Impersonal 'Passive':

(60)  $\left[ \text{Voice}_{2P} \left[ \text{Voice}_{1P} \left[ \nu_{P} \left[ \text{VP} \right] \right] \right] \right]$ 

we seem to be running into another ordering paradox, where SI is both embedded under Voice<sub>1</sub> (as in (60)) and embedding Voice<sub>1</sub> (as in the 'double Passive' in (58a) and (58c)). The problem is in fact even more transparent in (61), where both the Auxiliary and the lexical verb bear SI morphology:

(61) Często by-wa-n-o o-śmiesz-Ø-a-n-ym w often be-SI-PRT-o pref-ridicule-TH-SI-PRT-sg.m.INSTR in miejscach publicznych.

places public
'One has often been ridiculed in public places.'

Postulating two different projections for Secondary Imperfective seems to be unmotivated in view of the fact that the semantics of both is identical (i.e. progressive and habitual readings, cf. section 2.2.8).

The above discussion was meant to make conspicuous problems involved in the monoclausal functional approach to Passives in general (and Impersonal -NO/TO in particular) relating mostly to ordering the relevant construction in the universal  $f_{seq}$ . The latter type of problems involved: (i) seemingly unpredictable impersonal passivization of Modal verbs; (ii) impossibility to derive the restriction to past tense interpretation from the ordering; (iii) or-

dering problems related to Secondary Imperfective in 'double Passives', and finally (iv) recurring cycle in 'double Passives', where double Secondary Imperfective morpheme occurs.

#### Explaining ordering problems

If, on the other hand, one considers the types of Themes involved with the relevant Auxiliaries, the facts fall out naturally.  $By\acute{c}$  ('be') is a Theme-less irregular verb.  $Bywa\acute{c}$ , as a SI, must be equipped with the processual  $\nu$  (due to the semantics of SI - cf. sections 2.2.8). Finally, with  $zosta\acute{c}$  ('become') things are a little more complicated: it is irregular in the sense that in present tense it behaves as either a semelfactive or low inchoative Theme, but in the past (and also in Impersonal -NO/TO construction - cf. example (57)) it behaves as an -a- stem. The relevant paradigm is presented below.

Person	sg	pl
1st	zostan-ę	zostan-iemy
2nd	${ m zostan} ext{-iesz}$	zostan-iecie
$3\mathrm{rd}$	${ m zostan} ext{-ie}$	zostan-ą

Table 4.2: Present Tense conjugation zostać

Person	sg	pl
1st	zosta- $l$ - $em$	zosta-l-iśmy
2nd	zosta-ł-eś	zosta-l-iście
3rd	zosta-ł	zosta-l-i

Table 4.3: Past Tense conjugation zostać

The fact that -n- is absent in the past tense seems to point in the low Theme inchoative analysis (cf. Appendix A for the relevant paradigm). However, in the past tense the relevant verb behaves as if it was an -a-stem, i.e. instead of the expected Themelow impersonal form zostan-ie-t-o (on the analogy with stative adjectival participle roz-marz-nie-t-y (pref-freeze-TH $_{low}$ -PRT-3sg.m, 'deforosted apart')), we get zosta-a-n-o (compare: prototypical -a-stem pis-a-n-o (write-TH-PRT-o)). Therefore, it seems that at least in the contexts receiving past interpretation (i.e. also the context relevant for Impersonal Passive), the relevant verb could in principle also involve the analysis where the Theme is high.

Taking the SI form of BE as decisive evidence, I conclude then that -NO/TO-attaches only to verbs which posses the  $\nu$ -shell, even when these verbs are used as auxiliaries. Thus, we are led to conclude that the structures in (61) are biclausal in the sense that what seems to be an auxiliary is in fact a full lexical verb.

With Modals, the situation is not equally clear, as no obvious status can be ascribed to any Theme involved in them:  $musie\acute{e}$  ('must') and  $chcie\acute{e}$  ('want') are both **-e-** stems, i.e. stems about which I did not make any claims as a class.  $M\acute{o}c$  ('can') is an irregular verb. Yet, the very fact that the Theme **-e-** is present in the former two Modal verbs, whether it is of high or low status, seems to indicate the recurrence of low functional domain also on these verbs.

Finally, at least one of the two raising verbs, i.e.  $wyda-wa-\acute{c}$   $si\varrho$  ('seem') is a Secondary Imperfective of  $wyda\acute{c}$   $si\varrho$  and it is this form that is acceptable under Impersonal -NO/TO construction. As all SI verbs involve a Theme\_high stem, its possibility to occur in the Impersonal -NO/TO does not seem surprising in view of the findings from section 3.2 to the effect that Impersonal -NO/TO requires the presence of the light verb projection. Furthermore, both of the raising verbs are in fact Reflexiva Tantum. If this fact is to be treated as an indication of the presence of an external argument position (cf. section 3.1), then again, the grammaticality of Impersonal -NO/TO with rasing verbs follows naturally.

Recapitulating slightly, I have tried to show that the ordering problems, as well as the reiteration issue in Impersonal -NO/TO construction, receive a natural solution under the treatment of Auxiliaries, Modals, as well as raising verbs in Polish as lexical verbs (i.e. having the structure [ V (, $\nu_n$  (,...))]). Thus, the reader will recall from section 3.2.4 that the structure proposed for Impersonal -NO/TO construction was roughly as in (62)<sup>16</sup>:

(62) [?P -n/t- [
$$\nu_{DIR}$$
P  $pro_{arb}$  [  $\nu_{NEUT}$ P [VP DP ]]]

The exact same structure will be relevant in case -NO/TO merges on top of Modals, Auxiliaries or raising verbs. Once the proposal with respect to -n/t-morpheme is put forward, I will also come back to the structure of 'double Passives' as in (58c), (58a) or (61).

#### 4.2.1 Category status vs external distribution

As the reader might anticipate, at this point I am forced to elucidate the assumptions concerning the mysterious ending -o. An interesting account of o in -NO/TO, motivated by the lack of ACC Case absorption, is presented in Kipka (1989), where it is assumed that a participle is not able to assign Case. Yet, -o restores the Case assigning properties of the passive participle, thus turning -NO/TO into a 'resurrected verb'. This line of argumentation is no longer available in an updated syntactic theory where certain functional heads are responsible for checking and valuing Case. Thus, if the Impersonal incarnation of -n/t- selected for a flavor of  $\nu$  without Case assigning features,

<sup>&</sup>lt;sup>16</sup>In (62), I gloss over different possibilities arrived at in section 3.2.4, i.e. presence vs absence of RP, presence vs absence of VP, and Appl, as well as reflexive structures.

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as has often been suggested in the literature with respect to the regular agreeing passive, there would be no way to 'undo' it later on in the derivation. Therefore, the solution whereby the ending -o restores the verbal character of the construction in question seems to me to be unavailable anymore.

I suggest instead that the ending **-o** is a nominal declension class marker, and in this sense resembles invariant perfect participles in Germanic, Romance or some Slavic languages more than it does the agreeing passive participle (the reader will recall that the default adjectival analysis was rejected in section 4.1). As shown in (63), **-o** is a common neuter class suffix in Polish:

(63) to piękn-e okno/ biodro/ this $_{sg.n.NOM}$  beautiful-sg.n.NOM window $_{sg.n.NOM}$ / hip $_{sg.n.NOM}$ / zioło/ koło herb $_{sg.n.NOM}$ / wheel $_{sg.n.NOM}$  'this beautiful window/ hip/ herb/ wheel'

In (63), I assume that the NOM suffix is in fact morphological zero, as is common in various NOM-ACC languages, and the vowel present in the NOM is a declension class marker, bearing also a gender feature.

However, it needs to be emphasized that the above nominal hypothesis faces one serious challenge, namely the external distribution of Impersonal -NO/TO. The latter behaves as a prototypical verb, e.g. it occurs following a Complementizer  $\dot{z}e$ :

(64) Wiem, że lubia-n-o Marka.  $know_{1sg}$  that like-PRT-o Marek<sub>ACC</sub> 'I know that Marek was liked.'

In (64), the fact that the Complementizer requires the presence of a (finite) verb, combined with the lack of any other candidate for being a verb, results in the conclusion that (i) either the invariant participle must be verbal in nature; (ii) or there must be a covert verbal element present.

Furthermore, -NO/TO can be followed by a conditional/subjunctive clitic by. By parity of reasoning, although by is totally insensitive to the category of the word it attaches to (cf. Pięknie-by to zrobil. (beautiful-cond this did; 'He would do this beautifully'), the presence of by indicates the presence of a verb somewhere in the structure:

(65) Zrob-i-on-o-by to gdyby umia-n-o. do-TH-PRT-o-cond this $_{ACC}$  if know.how.TH-PRT-o 'One would do it if one knew how to.'

#### Covert copular Auxiliary

In view of these distributional facts, I suggest that Impersonal -NO/TO in Polish involves a covert Auxiliary BE. The argument goes as follows.

We have already seen in section 4.1.3 (cf. (22) and (23)) that languages which use the -n/t- participle in the sense equivalent to Germanic/Romance perfect tense, display the Auxiliary HAVE<sup>17</sup>. On the other hand, the Auxiliary used with the pan-Slavic -l participle is BE. This contrast is illustrated in (66) with Macedonian data (cf. also Migdalski (2006) for extensive discussion).

- (66) a. Jas **sum** go próda-l. Macedonian I be<sub>1sg</sub> it sell-AOR.sg.m 'I have sold it.'
  - b. Gosti-te imaat dojde-no.
     guests-the have<sub>3pl.pres</sub> arrive-NO
     'The guests have arrived.' (Elliott, 2001:28)

Assume, for the sake of the argument, that Impersonal -NO/TO is in fact more comparable to the active perfective-n/t- participle in Macedonian and other languages than it is to the Polish agreeing passive participle. This immediately derives the compatibility of -NO/TO with Modals, since in languages which have active participles, these unproblematically merge on top of Modal verbs, as illustrated in (67) for Norwegian.

- (67) a. Jeg hadde kunn-et gjor-t det. Norwegian
  I had can-PRT do-PRT it
  'I had been able to do it.'
  - b. Hun hadde mått-et dra-tt tidlig. she had must-PRT go-PRT early 'She must have gone early.'

Now, if Polish -NO/TO can be compared to Macedonian active participles in -n/t-, then it follows that the Auxiliary that would have to be used is HAVE. Yet, Polish never uses  $mie\acute{c}$  (HAVE) as an Auxiliary verb. In fact, I would like to suggest that Polish lacks the Auxiliary HAVE altogether. It needs to be borne in mind, however, that under present assumptions Auxiliaries and their lexical verb equivalents have a common entry in the lexicon. To be precise, then, Polish does have a verb  $mie\acute{c}$  ('have'), but the latter cannot be used in the Auxiliary function. In the present system this means that the  $\Theta$ -roles of  $mie\acute{c}$  (HAVE) must be checked by Merge rather than Move/Remerge. Thus, some strategy needs to be resorted to in order to circumvent this problem. This strategy would crucially have to lead to a structure for which the only Polish Auxiliary available (i.e. nonovert BE) is licit. In (68) I illustrate Polish -l participles with covert BE.

<sup>&</sup>lt;sup>17</sup>The additional quirk is, unsurprisingly, that in some of these languages the Auxiliary choice seems to be a split-intransitivity diagnostic, as e.g. in Kashubian (cf. Migdalski (2006)). For the purposes of the argument in the main text, I assume that Polish is like English, Spanish or Macedonian in the sense that it does not distinguish between unaccusatives and non-unaccusatives with respect to Aux choice.

(68) Sprzedał-em/ Sprzedał-eś/ Sprzedał/ Sprzedal-iśmy sold-1sg/ sold-2sg/ sold $_{3sg}$ / sold-1pl 'I / You / He / We have sold.'

When (68) is compared with its Bulgarian equivalent, where the participle does not bear person and number agreement, it seems that overt BE is necessary with 1,2 Person, but optional with 3 Person.

(69) Prodal sum/ si/ (e)/ Prodal-i sme Bulgarian sold  $be_{1sg}/be_{2sg}/(be_{3sg})/$  sold-pl  $be_{1pl}$  'I / You / He / We have sold.'

The conclusion from Polish (68) and Bulgarian (69) is that the only purpose that BE serves is to carry Person and Number agreement<sup>18</sup>. Assuming that 3 Person is no Person and singular Number is no Number, the zero 3 Person ending in Polish, as well as optionality of e in Bulgarian follows. As it is the participle in Polish that carries 1,2 Person, as well as plural Number features, the presence of Auxiliary is unnecessary. The relevant BE is purely a copula, and in this sense it differs from Passive Auxiliary BE.

Now, taking the covert copula hypothesis in -NO/TO as essentially on the right track, the question is what allows for the copula to be nonovert in the construction in question. Since I have argued that the external argument involved in Impersonal -NO/TO construction is pro-arb, it is relevant to examine its  $\phi$ -feature specification. Differently from Italian pro (cf. e.g. Manzini (1986) or Cinque (1988), both making the relevant claims about Impersonal si), Polish pro is specified as 3 Person, i.e. [-Person] and singular Number, i.e. [-Number]. The Person specification is evident from the fact that the implied external argument in -NO/TO construction can never be interpreted as a participant (i.e. neither the speaker not the adressee). Singular Number specification, on the other hand, is evident from adjectival agreement in (70):

(70) Pozosta-n-o nag-im.
remain-PRT-o naked-INSTR.sg.m
'One remained naked.'

This default Person and Number specification is exactly what allows the copula to drop in Impersonal -NO/TO construction.

Yet, the question that I have not yet answered is what allows the copula in the construction under discussion in the first place. At this point it is a bit premature to develop a full-fledged answer to this question. Let me,

<sup>&</sup>lt;sup>18</sup>With respect to Tense difference, i.e. Present Perfect vs Past Perfect, it is also plausible that Present is in fact a default value for Tense (*vide* nonovert copula in present tense in Russian), and thus BE does not need to spell it, as opposed to Past, where the Auxiliary needs to be always spelled out, even in Polish (cf. archaic: *Sprzedal-em go bylem* (sell-prt-1sg him be-prt-1sg; 'I had sold him'.))

however, propose, based on Italian data, that it is in fact Impersonalization that licenses the occurrence of the copula (instead of the Auxiliary HAVE). This is seen in Italian, where in spite of the fact that the lexical verb normally takes the auxiliary HAVE, when it is used in Impersonal si construction, the Auxiliary switches to BE<sup>19</sup>:

(71) Oggi, a Beirut, si  $\mathbf{\hat{e}}$  ucciso un innocente. Italian today in Beirut, si  $\mathbf{be}_{pres.3sg}$  killed an innocent 'Today, in Beirut, one killed an innocent.'

(Cinque, 1988:(43a))

Let me propose a tentative generalization in (72), which is at this point a purely descriptive statement:

(72) Impersonal construction licenses the switch from HAVE to copula BE.

In the next section I will propose a way to derive (72) structurally.

To sum up, the above analysis has the following advantages:

- It derives the Past interpretation of Impersonal -NO/TO. The semantic details of how Perfect relates to the Utterance Time need not concern us here. The sentence in the Perfect will normally present the event as taking place BEFORE Utterance Time. And this is exactly the case for Polish Impersonal -NO/TO.
- The *prima facie* strange distributional properties, i.e. the possibility to attach on top of modals and raising verbs follow under the active participle analysis. Active participal morphology can freely attach on Modal verbs.
- The prima facie incompatibility with Auxiliaries, which has lead Lavine (2000) to reanalyse -NO/TO as a Tense Auxiliary marker. This fact follows under the present assumptions since Impersonal -NO/TO already contains an Auxiliary, i.e. covert copula BE.
- non-productivity of active -n/t- participles in Polish, as compared with Macedonian or Germanic and Romance languages. Since Polish lacks Auxiliary use of HAVE, and Impersonal construction is the only one where Auxiliary switch is allowed, the restriction of -NO/TO to covert impersonal pro-arb follows.

<sup>&</sup>lt;sup>19</sup>Note that under the present assumptions, the different feature specification of Italian pro (i.e. [+Number]), yields a prediction that the copula cannot be dropped in the Impersonal si construction. This is in fact borne out, but surprisingly the Auxiliary does not agree with pro, i.e. it is 3sg. (Tarald Taraldsen, p.c.)

• ACC Case. Although the details of ACC case assignment have not yet been explained, the parallel sketched above between the active perfect participles and the invariant -NO/TO seems to reduce two mysteries to one: ACC Case retainment in Impersonal -NO/TO is analogous to the availability of ACC with active participles in Macedonian, Germanic or Romance languages.

In section 4.3 I turn to the comparison of Periphrastic Passive, Impersonal -NO/TO and uncontroversial nominalization in -nie/cie, hoping that as a result of comparison, a typology of constructions will emerge, where the same morpheme is used to spell out different subsequences, attaching at different levels in  $f_{seq}$ . As a result, an analysis of -n/t- will be given along the lines of Themes in the first part of the present work, where both morphemes are lavishly inserted to spell out chunks of  $f_{seq}$ , but can compromise their lexical specification to different degrees.

# 4.3 Event Separator -n/t- in a lavish insertion system

#### 4.3.1 Interaction with conjugation classes

In this section, I consolidate the information concerning the interaction of all three uses of the morpheme -n/t- (i.e. Periphrastic Passive, Impersonal -NO/TO, as well as uncontroversial nominalization in -nie/cie) with the conjugation class markers. This, in turn, is meant to strengthen the unified analysis of the -n/t- morpheme, as well as the event decomposition pursued in the present work.

Let me first remind the reader of the paradigm I am interested in:

- (73) a. Książka była czyt-a-n-a/ dar-t-a. book $_{sg.f.NOM}$  be $_{3sg.f.pst}$  read-TH-ES-sg.f/ tear-ES-sg.f 'The book was being read.'
  - b. Czyt-a-n-o/ Dar-t-o książkę. read-TH-ES-o/ tear-ES-o book<sub>ACC</sub> 'Someone was reading the book.'
  - c. czyt-a-n-ie/ dar-c-ie książki read-TH-ES-ie/ tear-ES-ie book $_{GEN}$  'reading the book'

All the three constructions in (73) display the same participial morpheme. Moreover, the choice of the allomorph (i.e. -n- vs -t-) is always the same in the three cases, as shown also in  $(73)^{20}$ . All of the three uses of the participial morpheme also embed a Theme<sup>21</sup>.

Now, for agreeing Periphrastic Passive the received wisdom is that it can only apply to verbs with an external argument. This is less straightforward in the case of Impersonal -NO/TO, and unnoticed, as far as I know, for the uncontroversial nominalization in -nie/cie. In the present framework, the way to assure the potential presence of an external argument is through the  $\nu$ -layer, which introduces a Causing subevent, and hence an implied Agent/Cause. Now, in Polish, the presence of  $\nu$  is unambiguously diagnosed by the high Theme, as argued in chapter 2. Conversely, the presence of low Themes indicates the lack of  $\nu$  layer. Table 4.4 shows that none of the three uses of the participial morpheme -n/t- is possible with low Theme stems, as well as some of the irregular Themeless stems.

 $<sup>^{20}</sup>$ The alternation  $t \to c$  in the nominalization is phonologically conditioned.

<sup>&</sup>lt;sup>21</sup> Drzeć ('tear') happens to be Themeless.

irregular	irregular	-ej- stem	-ej- stem	-n- stem	-n- stem
'be'	'have'	'get smaller'	${\rm `blush/get\ red'}$	'get uglier'	'get slimmer'
* <i>by-t-y</i>	*mia-n-y	*zmala-n-y	*poczerwienia-n-y	*zbrzydnie-t-y	?wychudnie-t-y
* <i>by-t-o</i>	*mia-n-o	??zmala-n-o	??poczerwnienia-n-o	??zbrzydnię-t-o	??wychudnie-t-o
?by- $c$ - $ie$	*ma-n-ie	*zmale-n-ie	*poczerwienie-n-ie	?zbrzydnię- $c$ - $ie$	?wychudnię- $c$ - $ie$

Table 4.4: Lack of -n/t- prt with 'unaccusatives'

$be_{SI}$	'have' $_{SI}$	'pass $\operatorname{out}_{SI}$ '	${}^{'}\mathrm{die}_{SI}{}^{'}$	'go $\operatorname{out}_{SI}$ '
N/A	N/A	N/A	N/A	N/A
bywa-n-o	miewa- $n$ - $o$	z dy cha- $n$ - $o$	umiera- $n$ - $o$	wygasa-n-o
bywa-n-ie	miewa- $n$ - $ie$	z dy cha- $n$ - $ie$	umiera- $n$ - $ie$	wygasa- $n$ - $ie$

Table 4.5: -n/t- prt with SI of 'unaccusatives'

'put out'	'freeze'	'talk'	'touch'
-i- stem	-i stem	-aj- stem	-aj- stem
gaszo-n-y	mrożo-n-y	gada-ny	maca-n-y
gaszo-n-o	$mro\dot{z}o$ - $n$ - $o$	gada- $n$ - $o$	maca-n-o
gasze-n- $ie$	$mro\dot{z}e$ - $n$ - $ie$	gada- $n$ - $ie$	maca- $n$ - $ie$

Table 4.6: -n/t- prt with high Theme stems

Admittedly, there are certain slight differences in the acceptability of different uses of the relevant morpheme, e.g. the nominalization in -nie/cie seems to be quite permissive in the sense that some nominalizations with low inchoative -n- Themes are permitted by some speakers<sup>22</sup>. One possible analysis of potential nominalizations with low Themes runs parallel to the previously suggested derivation for resultatives or adjectival passives (cf. section 4.1). In other words, either (i) or (ii) holds:

- (i) the Theme spells out a very low functional sequence, without ever getting to eventive heads like  $VP_{Become}$ . In other words, it is the structure responsible for adjectival passives. Then the participial morphology merges on top of this structure, yielding a fact reading (cf. also Grimshaw's (1990) distinction between process and result nominals). This fact reading should not be compatible with any manner adverbials implying the presence of an event denoting head;
- (ii) alternatively, Theme<sub>low</sub> spells out its usual lexical specification (i.e.  $VP_{Become}$ ), and the participial morpheme merges on top of that, yielding a structure equivalent to Embick's resultative participle (cf. section 4.1). This structure, on the other hand, should be compatible with manner adverbials, but not with Agent-oriented material.

It seems that low Theme nominalizations, to the extent that they can be formed, never accept manner adverbials, but instead can take modifying adjectives. The degree to which they are compatible with manner-denoting adjectives vary. Some stems (e.g.  $brzyd-nq-\acute{c}$  (ugly-TH $_{-n}$ --inf; 'get ugly') accept it, while others (e.g.  $przy-by-\acute{c}$  (pref-be-inf; 'arrive')) don't:

- (74) a. Gwałtowne/ stopniowe brzyd-nię-c-ie Ani. abrupt $_{sg.n}$ / gradual $_{sg.n}$  ugly-TH-ES-ie Ania $_{GEN}$ 'Ania's abrupt/ graduall getting ugly'
  b. #Powolne/ pospieszne przy-by-c-ie posła
  - b. #Powolne/ pospieszne przy-by-c-ie posła. slow/ hurried pref-be-ES-ie MP 'slow/ hurried arrival of the MP'

It is not clear, however, to what degree (74) is a matter of structural difference yielding ungrammaticality, rather than semantic incompatibility of

 $<sup>^{22}</sup>$ I have also met speakers who accept nominalizations with -ej- Theme<sub>low</sub> stems, e.g. z-mal-e-n-ie ekranu (pref-small-TH<sub>-ej</sub>-ES-ie screen<sub>GEN</sub>; 'the fact that the screen diminished'), although this seems to be out for most of the speakers, myself included.

certain roots with specific types of adverbials (cf. the dubious status of *Poset przybył ?powoli/\*stopniowo/\*gwałtownie* ('The MP arrived ?slowly/ \*gradually/ \*abruptly').

#### Speaker variation in lexical entries

Let us assume then that manner adjectives are indicative of the verbal structure analogously to manner adverbs, and, given (74a), that there is in fact a group of speakers who allow the merger of -n/t- on top of  $VP_{Become}$ , although for the majority of speakers 'aborting' the verbal sequence on top of 'unaccusative' structure (i.e. on top of  $VP_{Become}$ ) is impossible. That implies that instead of the prevalent more conservative lexical entry in (75) where the presence of the external argument has to be secured by the spell out of the light verb, these speakers have the less restricted entry in (76), where the spell out of  $V_{Become}$  is not contingent on the spell out of the light verb:

- (75) ES -n/t: [ (V<sub>Become</sub>,  $\nu_n$  (, $\nu_{n+1}$  (,...)))]
- (76) ES -n/t:  $[(V_{Become}(,\nu_n(,\nu_{n+1}(,...))))]$

The situation where ES spells out its full lower boundary, i.e.  $V_{Become}$  and everything above corresponds to adjectival passives and the 'fact' readings of nominalizations<sup>23</sup>. The problematic scenario under discussion is one of the options in (76), where -n/t- does not spell out the light verb hierarchy, but it does spell out  $V_{Become}$ . This option is not available for the speakers with the entry in (75) since compromising the spell out of  $\nu_n$  involves compromising  $V_{Become}$  as well, yielding 'fact' readings of nominalizations. Two questions come to mind immediately:

- (i) why should the speakers with the entry in (75) simply disallow the formation of nominalizations with Theme $_{low}$  stems instead of getting the restricted 'fact' readings?
- (ii) why should the speakers with the entry in (76) allow resultative nominalizations (i.e. brzyd-nie-c-ie (ugly-TH<sub>n</sub>-ES-ie; 'getting ugly'), mal-e-n-ie (small-TH<sub>ej</sub>-ES-ie; 'getting smaller')), but not resultative adjectives (i.e. \*z-brzyd-nie-t-y (pref-ugly-TH<sub>n</sub>-3sg.m; 'that got ugly'), \*z-mal-a-n-y (pref-small-TH<sub>ej</sub>-ES-3sg.m; 'that got smaller')).

As for the first question, I submit that the reason is related to the lexical entry for the Theme<sub>low</sub> represented in (77) (cf. also chapter 2):

 $<sup>^{23}</sup>$ Note that to the extent that 'fact' readings of nominalizations with deadjectival Theme $_{low}$  stems are possible for some speakers (though not for me), as e.g. in %z-glod-n-ie-n-ie (pref-hungr-adj-Th $_{ej}$ -ES-ie, 'the fact that somebody got hungry'), %z-mal- $\varnothing$ -e-n-ie (pref-small-adj-Th $_{ej}$ -ES-ie; 'the fact that somebody got smaller') seems to indicate that the adjectival morphology must undergo down-sqeezing by the Theme. Otherwise there would be no projection for the Theme to be inserted into. An alternative is even more fine-grained functional sequence. I leave this issue open.

(77) Theme<sub>low</sub>: [(R),  $V_{Become}$ ]

(77) is a collapsed notation for both types of Theme $_{low}$ : the inchoative -n-Theme (cf. section 2.2.3) where it is the Theme that spells out R, and the deadjectival -ej- Theme where the adjectival morphology spells out R (cf. section 2.2.4). What the entry in (77) implies is that Theme $_{low}$  obligatorily spells out  $V_{Become}$ . This is the reason why the speakers whose lexicon contains twe entry in (77) find it impossible to create -nie/cie nominalizations with 'fact' readings on top of Theme $_{low}$  stems.

As for the question in (ii), i.e. the formation of Theme<sub>low</sub>-based resultative adjectives, I submit that the reason is that there already is an Event Separator specialized for doing the job, namely -l-, as in resultative adjectives of the type in (78):

(78) z-mal-a-l-y (pref-small-TH<sub>ej</sub>-ES-3sg.m; 'that got smaller'), o-glupi-a-l-y (pref-stupid-TH<sub>ej</sub>-ES-3sg.m; 'that got stupid'),  $o\text{-}gluch\text{-}\varnothing\text{-}l\text{-}y$  (pref-deaf-TH<sub>n</sub>-ES-3sg.m; 'that got deaf')

Interestingly, these adjectives do not have stative readings. To put it differently, they always imply the existence of a prior event. This is in fact confirming our lexical entry for Theme<sub>low</sub> in (77). If the adjectives in (78) were to be stative adjectival passives, the relevant low Themes would have to be down-squeezed to spell out just R (or, in fact, only P, if the adjectival morphology is present, cf. section 2.2.4), since no event is implied in the latter passives.

Thus, for the resultative adjectives there exists in principle a choice between two Event Separators: -n/t- (for speakers with the entry in (76)) and -t- for all speakers. However, since -t- participles cannot receive the interpretation of stative adjectival passive structure, it must be concluded that -t- is lexically specified as merging lowest on top of  $V_{Become}$ . That means that its insertion in the case at hand does not involve any up-sqeezing, as opposed to the insertion of -n/t-. Therefore, I submit that the use of -n/t- morphology here is excluded by the Elsewhere Condition: instead an item with the narrower domain specification is used, i.e. -t-.

Similar issues arise with some inchoative -n- stems and their free variation with respect to participle formation. Certain inchoative -n- stems allow formation of both resultative -l- participles (- a norm for this class of verbs), as well as -t- participles: wychudnię-t-y ('skinny') and wychud-l-y ('that has lost weight'), rozmarznię-t-y ('defrosted') and rozmarz-l-y ('that has defrosted apart'), rozkwitnię-t-y ('in bloom') and rozkwit-l-y ('that has blossomed'). It is crucial to observe, however, that the occasional -n/t- par-

ticipial forms with these low Theme stems do not have eventive readings<sup>24</sup>, e.g. rozmarznię-t-y ('defrosted') does not entail that there was a stage at which the Subject was frozen.

In order to see the lack of eventive readings, it is worthwhile it consider the contrast between resultative -t- participles (which have only eventive readings) and occasional Theme<sub>low</sub>-based -t- participles related to adjectival modification. (79) shows that the former do not allow modification by zbyt ('too') or prefixal negation, whereas the latter do allow both (cf. (80)):

- (79) a. \*zbyt roz-kwit-l- $\varnothing$ -a jabłoń/ \*zbyt too pref-bloom-TH<sub>n</sub>-ES.sg.f apple.tree/ \*too wy-chud- $\varnothing$ -l-y człowiek pref-slim-TH<sub>n</sub>-ES-sg.m man intended: 'an apple tree that has blossomed too much/ a man that has lost too much weight'
  - b. \*nie-roz-kwit- $\varnothing$ -ł-a jabłoń/
    neg-pref-bloom-TH $_n$ -ES-sg.f apple.tree/
    \*nie-wy-chud- $\varnothing$ -ł-y człowiek
    \*neg-pref-slim-TH $_n$ -ES-sg.m man
    intended: 'an apple tree that has not blossomed/ a man that has not lost weight'
- (80) a. zbyt roz-kwit-nię-t-a jabłoń/ zbyt too pref-bloom- $TH_n$ -ES-sg.f apple.tree/ too wy-chud-nię-t-y człowiek pref-slim- $TH_n$ -ES-sg.m 'an overblossomed apple tree/ a too skinny man' b. nie-roz-kwit-nię-t-a jabłoń/
  - nie-roz-kwit-nię-t-a jabłon/ neg-pref-bloom- $TH_n$ -ES-sg.f apple.tree/ nie-roz-marz-nię-t-e mięso neg-pref-freeze- $TH_n$ -ES-sg.n meat 'an unblossomed apple tree/ the undefrosted meat'

Obviously, the contrast between (79) and (80) only shows that the relevant -t- participles possess stative readings, but not that they lack eventive ones. In order to show the latter point, one has to consider their behavior with certain temporal modifiers. Consider (81) vs (82):

(81) a. #wczoraj roz-kwit-nię-t-a jabłoń yesterday pref-bloom- $TH_n$ -ES-sg.f apple.tree 'an apple tree that was in bloom yesterday' '\*an apple tree that blossomed yesterday'

<sup>&</sup>lt;sup>24</sup>Hence, different glosses for the -*l* and the -*t*- participle respectively.

- b. #ostatnio roz-marz-nię-t-e jezioro recently pref-freeze- $TH_n$ -ES-sg.n lake 'a lake that was defrosted recently' '\*a lake that recently defrosted'
- (82) a. wczoraj roz-kwit- $\varnothing$ -ł-a jabłoń yesterday pref-bloom- $TH_n$ -ES-sg.f apple.tree 'an apple tree that blossomed yesterday'
  - b. ostatnio roz-marz- $\varnothing$ -ł-e jezioro recently pref-freeze-TH<sub>n</sub>-ES-sg.n lake 'a lake that has defrosted yesterday'

To the extent that the modified -t- participle in (81) is acceptable, it only receives the reading where at the particular point in time (i.e. yesterday) the state of being 'in blossom' held. This stands in contrast to -t- participles in (82), where the adverbial wczoraj ('yesterday') and ostatnio ('recently') modifies the event of blossoming or defrosting. This state of affairs, namely the fact that -n/t- participles can never be interpreted as resultatives, confirms the workings of the Elsewhere Condition.

The question is now what does it mean structurally to allow for -t- participles based on Theme<sub>low</sub> stems. In other words, the issue that arises is that the relevant participal suffix would have to merge directly on top of RP, and so to speak 'swallow'  $VP_{Become}^{25}$ 

The impossibility of having a reflexive clitic in (i) follows from the fact that there is only one thematic position in the relevant structure, i.e. Spec, RP relevant for Resultee. Therefore, the potential reflexive could not perform its usual function of identifying two  $\Theta$ -roles. The second piece of evidence concerns the interpretation of stative and eventive participle in relation to argument identification. Stative adjectival participles do not bear any information w.r.t. the external argument, and hence can be interpreted both reflexively and non-reflexively (cf. (iia), which has a stative interpretation as one of its readings). On the other hand, the participles which do not have RP in its structural representation, and are therefore restricted to eventive interpretation, cannot be interpreted reflexively (i.e. Undergoer  $\neq$  Agent)(cf. (iib)).

- (ii) a. u-czes-a-n-y, o-gol- $\varnothing$ -on-y pref-comb-Th-ES-3sg.m, pref-shave-Th<sub>i</sub>-ES-3sg.m 'combed', 'shaved' (i.e. either by someone else or by himself)
  - b. czes-a-n-y, gol- $\varnothing$ -on-y comb-Th-ES-3sg.m, shave-Th<sub>i</sub>-ES-3sg.m 'that is being combed', 'that is being shaved' (by someone else)

<sup>&</sup>lt;sup>25</sup>Although the point does not lie in the focus of the present thesis, as I do not concentrate on stative adjectival participles, it seems to me two important types of evidence substantiate the analysis of stative participles as involving an ES on top of RP. Firstly, in cases of prefixed induced reflexive verbs, the reflexive mysteriously 'disappears' whenever the verb displays participial morphology, e.g.:

<sup>(</sup>i) za-koch-a-n-y (\*się), za-cietrzew-i-on-y (\*się) pref-love-Th-ES-3sg.m (refl), pref-blackcock-Th-ES-3sg.m (refl) 'in love', 'irritated'

(83) 
$$\left[ VP_{Become} - t - \left[ RP \text{ Theme}_{-n-} \right] \right]$$

The problem is that the entry I postulated for the low Themes in (77) does not allow for this situation since Theme<sub>low</sub> cannot be down-squeezed to spell out just R, as  $V_{Become}$  is an obligatory feature in its spell-out. That seems to suggest that at least for some speakers, and for some stems, the lexical specification of Theme<sub>low</sub> has to be (84), possibly either as a historical remnant, or as a spreading innovation:

(84) Theme<sub>low</sub> -n-: 
$$[R(V_{Become})]$$

Finally, I need to consider an alternative account of the lack of -n/t- participles, nominalizations and Impersonal -NO/TO with Theme<sub>low</sub> stems. Suppose that the entry in (75) does not exist and ES merger is generally allowed at every level. What would then exclude the non-existing forms? Firstly, the lack of resultative participles with Theme<sub>high</sub> stems, where ES merges on top of  $V_{Become}$ , shown in (85), follows from the lexical specification of Theme<sub>high</sub>.

(85) wy-rzeźb-i-on-a celowo postać pref-sculpt-Th<sub>high</sub>-ES-sg.f purposefully figure 'a purposefully sculptured figure'

As it is always possible to add Agent-oriented adverbials (i.e. celowo), it seems that the relevant participles necessarily involve the Theme<sub>high</sub> spelling out the light  $verb^{26}$ . Secondly, the lack of stative nominalizations with Theme<sub>low</sub> stems would follow from the entry in (77) (i.e. Theme<sub>low</sub> has to spell out the eventive head). For the same reason stative adjectival participles of Theme<sub>low</sub> stems would be excluded. As for the higher level of structure (i.e. the scenario when ES is inserted on top of  $V_{Become}$ ), resultative participles would be excluded by the Elsewhere type of reasoning (i.e. insert -l- instead), whereas the resultative nominalizations with Theme<sub>low</sub> stems would be generally allowed. To the extent that inchoative Theme<sub>n</sub> stems do seem to be acceptable in nominalizations with this reading (cf. Table 4.4), I happen to belong to the group of speakers that do not allow nominalizations with Theme<sub>ej</sub> stems (e.g. \*z-mal-e-n-ie (pref-small-Th<sub>ej</sub>-ES-ie)). For this particular reason I decide to keep the inseparate character of  $V_{Become}$ - $\nu_1$  subsequence in the entry in (75).

The contrast in (ii) stems from the fact that if the structure includes the light verb projections, as in (iib), then the reflexive is necessary to allow the identification of Undergoer and Agent.

<sup>&</sup>lt;sup>26</sup>Admittedly, if the two types of participles (i.e. resultative and agentive) are homophonous, the possibility of having Agent-oriented material might always be related to the latter interpretation. In this case the problem does not arise at all. I leave it for future research to investigate other possible contexts where the difference between the two might surface.

Putting aside these cases of manipulation of lexical entries, I would also like to point out that the questionable and highly speaker-dependent acceptability of both (i) Theme<sub>low</sub>-based resultative nominalizations and (ii) Theme<sub>low</sub>-based (specifically, -n- Themes) stative -t- participles stands in a striking contrast to full acceptability of Secondary Imperfective variants of the verbs in question for all speakers (Table 4.5 above). This essentially confirms the analysis of SI verbs from chapter 2 as unergatives possessing  $\nu$ shell. In other words, with SIs, even if the argument originates VP-internally, the structure displays the light verb projection  $\nu_1$ . And only on top of this structure will SI (i.e. Asp<sub>2</sub>P) be merged in accordance with its semantic requirements concerning delimited interval (cf. section 2.2.8). This structure, in turn, is compatible with both lexical entries for the Event Separator -n/t-: the more common one in (75), as well as the less frequent one in (76). In that connection, the reader is reminded that -ej- stems never form Secondary Imperfective (cf. also section 2.2.8), and inchoative -n- stems rarely do (since they need to redirect the root to a different conjugation class). That is why the test of SI is not applicable in a lot of cases.

Furthermore, the passive participle formation test is not applicable in the cases of the verbs in Table 4.5, since none of the SI verbs with Theme<sub>low</sub> stems as basic equivalents can be used transitively. The question arises why this should be so. If the argument of the relevant SI stems were to originate VP-internally, there is no reason why it shouldn't later on move to check ES's Subject-of Predication feature (cf. e.g. Rothstein (2001) on the Predication Condition)<sup>27</sup>. Therefore, I submit that the relevant argument merges directly in the light verb system (without ever passing through the VP-internal positions. If the Event Separator were to merge directly on top of  $\nu_1$  in the agreeing Periphrastic Passive, the only argument available would be an optional adjunct in Spec, $\nu_1$ P. I submit that this argument does not have the relevant feature to be attracted by the Event Separator and satisfy the Predication Condition.

It has also become clear by now that all the high Theme stems can occur in all three uses of the participial -n/t- morphology without any problems. This is illustrated in Table 4.6.

To sum up, comparing the first table with the two others, we see a striking contrast in the possibility to form all three types of constructions. This is the common denominator of all three uses of the relevant morpheme. I have also argued that, by necessity, the three tables are some kind of an idealization over a synchronic state of affairs. In other words, the deviations from the basic entry for -n/t- in (75), as well as the basic entry for Theme<sub>low</sub> in (77)

 $<sup>^{27}</sup>$ Cf. also the data in (115), section 3.1.5, where SIs were the only exception to the licensing of Θ-role identification, as well as the discussion in section 2.2.8 to the effect that for some reason redirection to a Theme<sub>high</sub> stem in the SI does not give rise to transitive structures.

do occur, and are easily accommodated under the present assumptions. Yet, the contrast between Table 4.4 on the one hand, and Tables 4.5 and 4.6 on the other, seem to confirm the common analysis of the relevant participial morpheme, apart from being a substantiation of the event decomposition arrived at in chapter 2. In what follows I will disregard the speaker-dependent deviations in the lexical entries discussed above, and I will essentially assume the basic entry in (75), although it will be subsequently reformulated as the new light verb projections pop up.

In section 4.3.2 I will discuss the differences between the three derivations.

#### 4.3.2 Level of attachment

In this section I would like to compare the properties of all three uses of participial morphology illustrated in (86). (86a) is an example of the regular Periphrastic Passive, (86b) an Impersonal Passive -NO/TO, and (86c) a nominalization:

(86)a. Książki zostały prze-czyt-a-n-e (przez books<sub>NOM</sub> became<sub>3non.vir</sub> pref-read-TH<sub>high</sub>-ES-non.vir (by wszystkich). all) 'The books have been read (by everyone).' Prze-czyt-a-n-o książki. pref-read-TH<sub>high</sub>-ES-o books<sub>ACC</sub> 'Someone read the books.' prze-czyt-a-n-ie książek (przez brata) pref-read-TH $_{high}$ -ES-ie books $_{GEN}$  (by brother)

There are numerous differences between the three constructions. Moreover, the productive nominalization in -nie/cie is in fact multiply ambiguous. I will argue that all of these differences stem from the level of attachment of the Event Separator -n/t.

'reading the books (by the brother)'

#### 4.3.3 ACC Case assignment

One difference relates to availability of ACC Case, which out of the three constructions is only preserved in the Impersonal-NO/TO. There exist many accounts of this difference in the literature, most of them involving ACC Case 'suppression', which, as I indicated in section 1.6 is hardly translatable into a derivational theory. The account that is most similar to mine, however, is the one in Wurmbrand (2000), which deals with the difference between 'restructuring' and 'non-restructuring' Passive for German cases of potential

lexical restructuring predicates like *versuchen* ('try'). (87a) is an example of so-called 'long passive', where the Object of the embedded infinitive bears NOM and the auxiliary agrees with it. (87b), on the other hand is a non-restructuring passive, where the embedded Object is in ACC and the matrix verb does not agree with it.

(87) a. dass die Traktoren zu reparieren versucht wurden German that the tractors to repair tried were 'that they tried to repair the tractors'

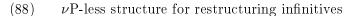
(Wurmbrand, 2000:19)

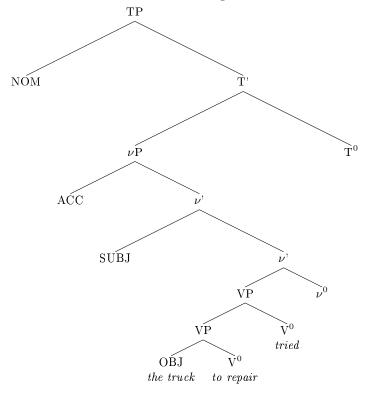
b. dass [den Traktor und den Lastwagen] zu reparieren versucht that [the tractor and the truck]-ACC to repair tried wurde/\*wurden was/\*were

'that they tried to repair the tractor and the truck'

(adapted from (Wurmbrand, 2000:38)

Wurmbrand's account of the difference hinges on the assumption that in the case of restructuring infinitive in (87a), the 'matrix' verb takes as its complement a bare VP that does not have a  $\nu$ P projection assigning ACC to the object. Therefore, the object of the embedded verb is dependent for its Case on the matrix verb *versuchen*.





For this reason, in the case where the matrix predicate is passivized, structural accusative becomes unavailable and the matrix T is the only case assigner left. Thus one expects to see NOM on the object, as well as agreement on the matrix verb.

Things fall out differently when the matrix verb embeds a  $\nu P$  complement which assigns ACC to its own object. In that case there is no reason to expect that Passivization of the matrix verb would influence the Case on the object of the infinitive and (87b) is the result. The gist of the account is thus the size of the complement embedded under the lexical restructuring predicate.

Although my analysis of the relevant difference for Polish will be similar in spirit to Wurmbrand's, it cannot be adapted in the shape presented above. This is because I am working with specific assumptions about Polish verbal morphology. In particular, the verbal morphology embedded under participial morpheme is identical for both types of Passives and the nominalization, and clearly cannot be bare VP even for the agreeing Periphrastic Passive. This is because the presence of embedded high Themes (e.g. -aj- in (86)) implies the presence of  $\nu$ . Therefore, in accordance with the fine-grained syntactic decomposition, the minimal assumption is that at least the first of the light verb projections, i.e.  $\nu_1$  is present in all the three constructions. Furthermore, I assume that  $\nu_1$  does not correspond to ACC Case assigning

level, as it is present in all the three constructions, but not all of them retain ACC Case. By the same reasoning,  $\nu_{DIR}$ P present in the complement of -NO/TO (cf. the structure in (62) section 4.2, repeated here as (89)) needs to be the level relevant for ACC Case assignment.

(89) 
$$\left[ ?P - n/t - \left[ \nu_{DIR}P \ pro_{arb} \left[ \nu_{NEUT}P \ \left[ VP \ DP \ \right] \right] \right] \right]$$

Now, the nominalization in -nie/cie patterns with Periphrastic Passive in the lack of ACC Case for the object (cf. (86c), where the object is in GEN Case). Thus, the null hypothesis is that it involves less structure than the Impersonal -NO/TO construction.

### 4.3.4 Different places in f<sub>seq</sub>

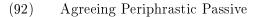
An interesting fact is provided for Sakha (Turkic) in Vinokurova (2005). Sakha displays two Passives, one of which 'preserves' ACC Case of the object, and the other does not.

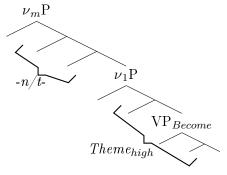
- (90) a. Munnjax ah-ylyn-na. Sakha
  Meeting open-pass-past.3
  'The meeting was opened.'
  - b. Munnjaq-y ah-ylyn-na.
    meeting-acc open-pass-past.3
    'The meeting was opened.' (Vinokurova, 2005:337)

Interestingly, these two types of Passives have to attach in different places in  $f_{seq}$ , since, as shown by Vinokurova, the one with ACC object applies on top of so-called frequentative/distributive aspectual morpheme, whereas the other one is embedded under under it. Crucially, both types of Passives involve the same morpheme -lyn.

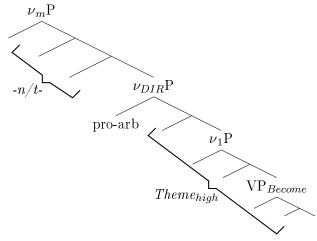
- (91) a. Oloppos-tor %aldjat-ylyn-ytalaa-ty-lar/\*aldjat-ytala-n-ny-lar. chair-pl break-pass-distr-past-pl/\*break-distr-pass-past-pl
  'Chairs were broken one after another.'
  - b. Oloppostoru %aldjat-ytala-n-na/\*aldjat-ylyn-ytalaa-ta.
     chair-pl-acc break-distr-pass-past.3/\*break-pass-distr-past.3
     'Chairs were broken one after another.' (Vinokurova, 2005:336)

Assuming that Polish Impersonal Passive is comparable to the higher Sakha Passive (due to availability of ACC Case), and given the two light verb projections that I argued for in section 3.1.4, the following structures seem to emerge:





# (93) Impersonal -NO/TO



To be sure, I remain agnostic as to the identity of the projection defining the upper bound of the lexicalization of -n/t- for the time being. Thus, in the agreeing Periphrastic Passive in (92), Theme<sub>high</sub> spells out only up to the first light verb projection, and the Event Separator -n/t- merges on top of this structure, delimiting one macro-event domain. Thus, ES fills the light verb system projections starting from  $\nu_{DIR}$ P (but cf. the reformulations in chapter 5).

In the structure for Impersonal -NO/TO, on the other hand, the same Theme is stretched (or, in other words, compromises less of its lexical specification) to spell out both of the light verb projections:  $\nu_1 P$ , as well as  $\nu_{DIR} P$ .

One important point, however, that needs to be made is the feature specification of ES -n/t. Since I argued above that  $\nu_{DIR}$  must be responsible for ACC case emerging on the object, the question is why -n/t- does not assign ACC in agreeing Periphrastic Passive in exactly the same way as Theme<sub>high</sub> does it in Impersonal construction. This fact seems to imply a fundamental difference between ES -n/t- and Themes. I suggest that the difference is that ESs are always specified for the default values of the relevant functional projections. If default values of projections in fact correspond to the ab-

sence of the projections (cf. Starke (2001)), then the absence of ACC Case for agreeing Periphrastic Passive follows. The default specification of ESs is further confirmed by the lack of any thematic features on the projections spelled out by the ES (cf the proposal in (160), section 3.2.3).

Finally, although this is not central to the present work, there is also some evidence to order Aspectual projections with respect to the two structures in (92) and (93). In Jablonska (2004) I argued that SI corresponds to the second Aspectual layer, as it overwrites the effects of prefixation. Let us then label it Asp<sub>2</sub>P. It turns out that SI can be embedded under all three types of participial constructions, as shown in (94)<sup>28</sup>:

- (94) a. Drzewa były o-zdab-i-**a-n**-e. trees $_{NOM}$  be $_{3non.vir.pst}$  pref-decorate-TH $_{high}$ -SI-ES-non.vir 'The trees were being decorated.'
  - b. O-zdab-i-a-n-o drzewa. pref-decorate- $\mathrm{TH}_{high}$ -SI-ES-o trees $_{ACC.pl}$  'Someone was decorating trees.'
  - c. o-zdab-i-a-n-ie drzew. pref-decorate- $\mathrm{TH}_{high}$ -SI-ES-ie trees $_{GEN}$  'decorating trees'

Furthermore, we know that distributive prefix po- in Polish has to be located structurally higher than SI, as it overwrites the effects of the latter (i.e. turns the verb back into a perfective predicate, cf. Jablonska (2004) for discussion). Yet, the prefixal nature of the Polish distributive makes the Mirror Principle argument unavailable. If, however, we take the Sakha distributive suffix to be equivalent to Polish distributive prefix (*vide* the same semantics), and label the relevant projection as Asp<sub>3</sub>, then the conclusion is the structure in (95)<sup>29</sup>:

(95) 
$$\left[ -n/t - \left[_{\text{Asp_3P}} po - \left[_{\nu_{DIR}P} \right] - n/t - \left[_{\text{Asp_2}} \text{SI} \left[_{\nu_{NEUT}P} \right] \right] \right] \right]$$

(95) is a shortcut notation in the following sense. In the traditional system, the two positions were -n/t- merges would be predicted to cooccur. In a lavish insertion system, on the other hand, the cooccurrence in a monoclausal structure (i.e. in the structure where one  $f_{seq}$  is involved) is excluded, as both morphemes in (95) are in fact one and the same item lavishly inserted, but up-squeezed by the Theme more in the case of Impersonal construction, and a less in the agreeing Pasive.

Having said this much, let us come back to the purported examples of cooccurrence of two 'passive' morphemes.

<sup>&</sup>lt;sup>28</sup>The underlying assumption is that Baker's (1988) Mirror Principle holds.

<sup>&</sup>lt;sup>29</sup>One piece of evidence is missing: the mutual ordering between Asp<sub>3</sub> and  $\nu_{DIR}$ . Since it plays no role in the present thesis, I assume an arbitrary ordering.

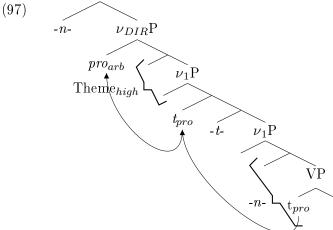
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#### 4.3.5 'Double Passives' revisited

In section 4.2 I have provided evidence to the effect that the Impersonal construction can cooccur with the agreeing Periphrastic Passive. These are repeated in (96):

(96) Zost-a-n-o okrzyk-nię-t-ym królem become-TH $_{high}$ -ES-o proclaim-TH $_{sem}$ -ES-3sg.m.INSTR king $_{INSTR}$  przez poddanych. by subjects 'Someone has been proclaimed king by the subjects.'

I have also argued that the occurrence of a Theme on the Auxiliary  $zosta\acute{c}$  ('become') excludes a monoclausal analysis of (96). Considering also the ordering problems involved in a monoclausal one- $f_{seq}$  analysis of (96), there seems enough evidence to postulate that (96) in fact involves two cases of Event Separation: an impersonalized lexical verb  $zosta\acute{c}$  ('become') merged on top of an agreeing periphrastic passive structure. This is represented in (97):



In (97) I abstract away from the structural representation of the Instrumental object, as well as from the possible presence of RP on the embedded verb (i.e.  $o\text{-}krzyk\text{-}nq\text{-}\acute{c}$  (pref-shout-Th<sub>sem</sub>-inf)), as these two are not crucial for the analysis.

As is clear from (97), the upper verb is essentially an unergative lexical verb. Let me now remind the reader of the reasons why I assumed in (97) that the Theme involved is in fact a high Theme. This is only an assumption in view of the irregular paradigm of  $zosta\acute{c}$ : in the present tense it behaves as an -n- stem, i.e. either semelfactive Theme $_{high}$  or inchoative Theme $_{low}$ . In the past, however, as well as under the Impersonal -NO/TO, it behaves as an -a- stem. Although I have not made any claims with respect to this class of verbs, the Theme $_{high}$  is enforced by theory-internal reasons. To wit, given

the more general entry for the ES -n/t- in (75), the very fact that  $zosta\acute{c}$  is acceptable in the Impersonal -NO/TO construction seems to indicate the high Theme analysis for the verb in question.

Furthermore, the absence of  $V_{Become}$  is crucial for  $zosta\acute{c}$  since it does not introduce an argument by Merge. If, however, its external argument feature were to be identified with the internal one (i.e. Agent with Undergoer), then one would have to see licensing of this identification by means of the reflexive clitic, contrary to facts (cf. section 3.1 for discussion). One crucial advantage of this way of conceiving of the upper verb is a uniform lexical entry for  $zosta\acute{c}$  ('become') in both its monoverbal uses, as well as its 'passive Auxiliary' ones. In both cases it selects for an adjective, as shown for the monoclausal structure in (98) (although in a monoclausal structure this is only one of the options, apart from a NP and a PP):

(98) Marek został bogaty/ nie-zwycięż- $\varnothing$ -on-y. Marek remained/became rich $_{sg.m}$ / neg-conquer-TH $_i$ -ES-sg.m 'Marek remained/ became rich/ invincible.'

What's more, in both monoclausal, as well as 'passive Auxiliary' use the relevant verb has its external argument feature checked by Move exclusively. In other words, it is a raising verb. Using the notation employed already in section 3.2.4, we might represent the lexical entry of zostać ('become') as in (99):

$$(99) \qquad \sqrt{zost} \, + \, \textit{-a-:} \, \left[ \nu_1 \, \left(, \nu_{DIR}^* \, \left(, \ldots \right) \right) \right]$$

Thus, it seems that the only difference between what is traditionally conceived of as Auxiliary on the one hand, and a lexical verb on the other, has to do with the way thematic features are being checked (i.e. Move vs Merge respectively). However, the question that arises is how is the entry in (99) different from unergative-based Reflexiva Tantum in 7, section 3.2.4. In the latter case we deal with a situation where an unergative verb is augmented by RP, the Resultee has to raise to check an external thematic feature, and consequently reflexive identification needs to take place (cf. section 3.1). Why doesn't the same identification take place in the case of (99)? I suggest that this is because the relevant verb zostać is formally perfective, as shown e.g. by its future tense interpretation in (100a), as well as incompatibility with phasal verbs in (100b):

(100) a. zostan-ę
become.TH-1sg.pres
'I will become/remain'
b. \*zacząć zostać

 $\frac{\text{start}_{inf}}{\text{intended: 'to stop becoming'}}$ 

If there is no way to augment the structure through RP addition, there is also no way to check thematic features within one functional sequence, the only remaining possibility is an Auxiliary, i.e. checking the relevant feature by movement from the thematic position of an embedded verb. By hypothesis, however, reflexive identification is not relevant for inter-clausal relations<sup>30</sup>. The conclusion seems to be that  $zosta\acute{c}$  can only involve a high Theme (due to possibility to occur in Impersonal construction), and that it cannot involve  $VP_{Become}$  (due to reflexive identification problem).

Coming back to 'double passives' in (96), the [+human] interpretation of the missing argument still holds, although pro-arb seems to originate in VP-internal position. In chapter 5 I will argue that it is in fact an overt full-fledged DP that merges in Spec,VP, but it gets peeled to the effect that there is no possible spell out for the relevant bundle of features. Secondly, the by-phrase in (96) suddenly becomes acceptable, though normally by-phrase is never allowed with -NO/TO. I argue that this is the by-phrase available at the level of lower  $\nu_1$ .

Let me now consider the issue relating to obligatory human interpretation of the covert argument. Under the monoclausal analysis of the 'double Passive' there is no way that the auxiliary can exert selectional restrictions on the arguments of the embedded main verb. Auxiliaries, in fact, by definition lack any thematic requirements, since they are functional heads in  $f_{seq}$ . Yet, if the structure in fact involves two lexical verbs, and if movement from one  $\theta$ -position to another  $\theta$ -position is allowed (cf. Hornstein (1999) and section 1.3), then the sentience requirement follows: the deep Object of the embedded verb will have to move to Spec, $\nu_{DIR}$ P of the higher verb (possibly also through the Specifier of the lower ES, inducing participial agreement). This is because otherwise the lexical verb zostać would fail to have its  $\Theta$ -role checked. This movement is licit since no intervening DP occurs. Thus, Relativized Minimality/ Minimal Link Condition is not violated in any sense. If the features of the object will be specified as [-human], the derivation will crash due to a feature clash<sup>31</sup>.

Another way to derive the sentience requirement is from the properties of pro. In other words, if pro is always [+human] (cf. Rizzi (1986)), and if Impersonal Passive has to involve pro, then the sentience requirement follows. Yet, this solution begs the question why the external argument under Impersonal -NO/TO should always be pro-arb. In other words, why is an overt DP disallowed in -NO/TO construction? I will come back to this issue below.

The advantage that this system has over the functional monoclausal analysis

<sup>&</sup>lt;sup>30</sup>The term 'inter-clausal' is meant here to refer to the structure involving two lexical verbs (i.e. two different  $f_{seg}$ s).

<sup>&</sup>lt;sup>31</sup>This is an ad hoc technical solution, and I will come back to the issue once 'peeling' of arguments is explained.

of 'double Passives' is that now long-distance selection has been dispensed with. In other words, the purported Auxiliary has been reanalysed as a lexical verb displaying its own thematic restrictions. In the case at hand the particular restriction boils down to the covert  $pro_{arb}$  requirement that holds of any lexical verb in the Impersonal construction. Note that the Impersonal -NO/TO is the case when the -n/t- morpheme spells out a subset of its lexical specification. At the same time, the lexical analysis of  $zosta\acute{c}$  ('become') accounts for the possibility of the occurrence of overt Themes, as well as SI on the 'purported' Auxiliaries or Modals. The restrictions on particular Modal/Auxiliary verbs under -NO/TO follow from the unified lexical entry for ES -n/t-, i.e. both require the presence of  $\nu$  (and therefore are only licit on top of high Themes). Finally, I have reduced the two uses of the verb  $zosta\acute{c}$  ('become') to one unified entry  $^{32}$ . Under this analysis (96) is not a purported example of 'double Passives', but rather 'regular Passive in a Perfect Tense' (cf. the gloss in (96)).

One final question that arises is the following: if (96) involves two lexical verbs, i.e. two functional sequences are involved, why is it that the only cooccurrence that is attested is Impersonal -NO/TO on top of agreeing Passive. Abstractly speaking, if agreeing Passive involves ES merged at some level of the functional projection  $F_x$ , and if the cycle is restarted, any recurrence of functional projections is expected (in a system without selectional restrictions), and hence also double occurrence of agreeing Periphrastic Passive, as in (101):

(101) \*Marek zost-a-ł zost-a-n-y Marek $_{NOM}$  become-TH $_{aj}$ -3sg.m.pst become-TH-ES-sg.m okrzyk-nię-t-y królem. proclaim-TH $_{sem}$ -ES-sg.m king $_{INSTR}$  literally: 'Marek was been proclaimed king.'

Yet, (101) is clearly ungrammatical. I suggest that the reason for that is exactly the reason why intransitive unergatives do not undergo agreeing Periphrastic Passivization: the argument merged in Spec, $\nu_1$ P in unergatives cannot satisfy the Predication Condition by moving to the Specifier of the projection occupied by the ES. In transitive verbs this function is performed by the object. Since zostać is an unergative and does not possess an object, it cannot involve ES merged on top of  $\nu_1$ P.

 $<sup>^{32}</sup>$ The same reasoning is taken to hold for the 'passive Auxiliary' BE and a lexical verb BE, but not the copula.

# 4.3.6 Availability and morphological shape of the external argument

This criterion is important since I assume that arguments originate as oblique adjuncts, and emerge from this oblique shape into an obligatory argument in structural Case by movement through particular verbal functional projections. In that sense, the morphological shape of the argument is indicative of the level of  $f_{seg}$  (cf. section 1.7 for more discussion of the point).

In section 3.2.3 I already provided some arguments to the effect that the external argument in Impersonal -NO/TO is more syntactically active (i.e. has been more peeled) than the external argument in the agreeing Periphrastic Passive. The systematization of this type of data, including the nominalization in -nie/cie, follows.

Firstly, in the Periphrastic Passive the external argument is an optional by-phrase, whereas in Impersonal -NO/TO it is a nonovert argument. The nominalization in -nie/cie in one of its instantiations behaves as the Periphrastic Passive (cf. (102b)), whereas in its other form (i.e. with the external argument in GEN Case), it behaves somewhat in between the two, (cf. (102c)):

- (102) a. Książka była czyt-a-n-a (przez Marka). book $_{NOM.f}$  be $_{pst.3sg.f}$  read-TH-ES-sg.f (by Marek $_{ACC}$ ) 'The book was read (by Marek).'
  - b. czyt-a-n-ie książki (przez Marka) read-TH-ES-ie book $_{GEN}$  (by Marek $_{ACC}$ ) 'reading of a book by Marek'
  - c. (Marka) czyt-a-n-ie książki (Marek $_{GEN}$ ) read-TH-ES-ie book $_{GEN}$  'Marek's reading of a book'

One remark is in order with respect to (102c). Although one finds claims in the literature that transitive nominalizations are impossible in Polish, it seems to me (102c) is perfect with two Genitives on condition the first one is preverbal. Alexiadou (2001) argues that transitive nominalizations in Greek have only noneventive reading. This explanation is clearly unavailable for Polish, where Secondary Imperfective, as well as adverbials forcing the eventive reading on Grimshaw's (1990) analysis can be present in transitive nominalizations. In fact, these types of eventivity diagnostics improve the grammaticality status of transitive nominalizations for all the speakers I consulted. An example is presented in (103):

(103) Marka **ciągłe** roz-rzuc-**a**-nie rzeczy po pokoju Marek $_{GEN}$  constant pref-throw-TH.**SI**-ES-ie things $_{GEN}$  in room działa mi na nerwy. act $_{pres.3sq}$  me $_{DAT}$  at nerves

'Marek's constant throwing around of clothes in the room drives me crazy.'

It also seems that the base-generation of the preverbal nominal in Spec,DP proposed by Alexiadou (ibid.) for English transitive nominalization is not a viable option for Polish since the preverbal Genitive always gets interpreted as Agent. Moreover, the word order in transitive nominalizations seems to obey all the restrictions on A-movement, i.e. the Theme  $\mathrm{DP}_{GEN}$  can never front, stranding the Agent postnominally. Strictly speaking, even in the absence of the other argument, a prenominal  $\mathrm{DP}_{GEN}$  can never be interpreted as a Theme:

(104) a. %miasta zniszcze-n-ie Jadzi city $_{GEN}$  destroy-n-ie Jadzia $_{GEN}$  '\*destroying the city by Jadzia' 'destroying Jadzia by (the inhabitants of) the city'

In spite of the fact that pragmatically the most plausible interpretation of (104) is with 'the city' interpreted as Theme, and 'Jadzia' as Agent, this reading is unavailable. Instead, a scenario is invented where the reverse reading would be pragmatically plausible (i.e. the only way to interpret 'the city' agentively is to refer to its inhabitants, but not all the speakers allow this coercion, and hence (104) is marked %). Thus, I conclude that the prenominal  $DP_{GEN}$  in transitive nominalizations is a real Agent and originates in some thematic position (lower than Spec,DP).

Coming back to the status of the GEN Agent with respect to a by-phrase or a covert pro-arb, let us try to establish the degree of its argumenthood. At first glance, it seems there isn't much evidence to conclude anything. To wit, its optionality might be an indication that it approximates a by-phrase. Yet, there is no way to verify the obligatory character of pro-arb in Impersonal -NO/TO. Likewise, Case status of pro-arb seems to be hard to establish too, especially in view of the cases of Dative-marked pro-arb (cf. Rizzi (1986) for Italian examples):

(105) Generał nie pozwala (żołnierzom/pro-arb) po-spać. General $_{NOM}$  neg allow $_{pres.3sg.m}$  soldiers $_{DAT}/pro$ -arb pref-sleep $_{inf}$  'The general doesn't allow (soldiers) to sleep.'

Yet, there is one idication to the effect that  $pro_{arb}$  cannot bear Nominative case. The evidence bears on the Case on primary and secondary adjectival predicates (cf. Franks (1995) and Marelj (2004:273)). NOM Subject in Polish triggers obligatory agreement on predicative adjectives, as well as secondary adjectival predicates with respect to Number, Gender and Case. Consider (106a) as an example of primary predicate, and (106b) - a secondary

adjectival predicate:

- (106) a. Maria jest młod-a/ Jan jest Maria $_{sg.f.NOM}$  be young-sg.f.NOM/  ${\rm Jan}_{sg.m.NOM}$  be młod-y. young-sg.m.NOM 'Maria/Jan is young.'
  - b. Maria pracuje sam-a/ Jan pracuje Maria $_{sg.f.NOM}$  works alone-sg.f.NOM/ Jan $_{sg.m.NOM}$  works sam- $\varnothing$ . alone-sg.m.NOM 'Maria/Jan works alone.'

Since there is no reason to assume that covert Nominative arguments would be different in this respect from overt Nominative ones (as the feature specification and position would by standard accounts be the same), we expect to see NOM also on adjectival predicates under -NO/TO if  $pro_{arb}$  is to bear Nominative case.

- (107) a. Jedz-on-o śniadanie samemu/ \*sam. eat-ES-o breakfast $_{ACC}$  alone $_{sg.m.DAT}$ / \*alone $_{sg.m.NOM}$  'Someone was having breakfast alone.'
  - b. Staw-a-n-o się coraz młodszym/ \*młodszy. become-Th.SI-ES-o refl more young $_{sg.m.INSTR}$ / young $_{sg.m.NOM}$  'One was becoming younger and younger.'

Instead of NOM, the secondary adjectival predicate in (107a) displays Dative, and the primary adjectival predicate in (107b) - Instrumental. The conclusion is that  $pro_{arb}$  cannot bear NOM Case (and, consequently, it cannot occupy the same position as overt Nominative arguments).

Let us now concentrate on the argumental status of pro-arb in -NO/TO in comparison with the Genitive argument of the nominalization and the by-phrase of the agreeing Passive. Firstly, the reflexive in the object position can be bound by the covert external argument in -NO/TO. Although the same configuration with the binder in a by-phrase in agreeing Periphrastic Passive is not as ungrammatical as sometimes claimed in the literature, it is clearly worse than in -NO/TO. Insterestingly, the nominalization presents a split behavior contingent on the morphological shape of the external argument. Genitive DP is able to bind a reflexive (cf. (108c)), whereas with a by-phrase it is equally degraded as in a Periphrastic Passive. (108d).

(108) a.  $pro\text{-}arb_i$  Opowiad-a-n-o bajki swoim<sub>i</sub> żonom. tell-TH-ES-o tales<sub>ACC</sub> refl.poss<sub>DAT</sub> wives<sub>DAT</sub> 'People told tales to their wives.'

b. (?)?Bajki były opowiad-a-n-e swoim $_i$  żonom tales $_{NOM}$  be $_{pst.3non-vir}$  tell-TH-ES-non.vir refl.poss $_{DAT}$  wives $_{DAT}$  przez dyrektorów $_i$ .

by managers

'Tales were told their wives by the managers.'

- c. Marka opowiad-a-n-ie bajek swojej żonie Marek $_{GEN}$  tell-TH-ES-ie tales refl.poss $_{DAT}$  wife $_{DAT}$  'Marek's telling tales to his wife.'
- d. (?)?opowiad-a-n-ie bajek swojej żonie przez Marka tell-TH-ES-ie tales refl.poss wife by Marek 'telling tales to his wife by Marek'

Secondly, the covert argument in -NO/TO is able to control into participal clauses, with both present participle in -qc and past participle in -wszy/tszy.

- (109) a. Rzuc-a-n-o kamienie, próbuj-ąc wymusić odwrót. throw-TH-ES-o stones $_{ACC}$  try-pr.prt enforce $_{inf}$  withdrawal $_{ACC}$  'People were throwing stones, trying to enforce withdrawal.'
  - b. Wy-pi-wszy herbatę, czyt-a-n-o książkę pref-drink-p.prt tea<sub>ACC</sub> read-TH-ES-o book<sub>ACC</sub> 'Having drunk the tea, someone was reading a book.'

The implied argument in a Periphrastic Passive fails both of these tests:

(110) a. \*Kamienie były rzuc-a-n-e, próbuj-ąc wymusić stones $_{NOM}$  be $_{pst.3non.vir}$  throw-TH-ES-non.vir try-pr.prt enforce $_{inf}$  odwrót. withdrawal $_{ACC}$  intended: 'Stones were thrown, trying to enforce withdrawal.'

b. \*Wy-pi-wszy herbatę, książka była czyt-a-n-a. pref-drink-p.prt  $\tan_{ACC}$  book $_{NOM}$  be $_{pst.3sg.f}$  read-TH-ES-sg.f

intended: 'Having drunk the tea, the book was read.'

Interestingly, with the nominalization in -nie/cie and a Genitive Agent judgements are somewhat delicate and seem to fall in between the judgements for the other two constructions. It is clear, however, that there is contrast between the nominalization with a by-phrase, which fares equally poorly as the Periphrastic Passive, and the other two configurations, i.e. with or without the Genitive Agent.

(111) a. ?Marka rzuc-a-n-ie kamieni, próbuj-ąc wymusić  ${\rm Marek}_{GEN}$  throw-TH-ES-ie stones $_{GEN}$  try-pr.prt enforce $_{inf}$  odwrót withdrawal 'Marek's throwing stones, trying to enforce withdrawal'

- b. (?)?rzuc-a-n-ie kamieni, próbuj-ąc wymusić odwrót throw-TH-ES-ie stones try-pr.prt enforce<sub>inf</sub> withdrawal 'throwing stones, trying to enforce withdrawal'
- c. \*rzuc-a-n-ie kamieni przez Marka, próbuj-ąc wymusić throw-TH-ES-ie stones by Marek try-pr.prt enforce odwrót withdrawal
- (112) a. ?Marka czyt-a-n-ie książki, wy-pi-wszy herbatę Marek $_{GEN}$  read-TH-ES-ie book $_{GEN}$  pref-drink-p.prt tea $_{ACC}$  'Marek's reading a book, having drunk the tea'
  - b. (?)?czyt-a-n-ie książki wy-pi-wszy herbatę read-TH-ES-ie book $_{GEN}$  pref.drink-p.prt tea $_{ACC}$  'reading a book, having drunk the tea'
  - c. \*czyt-a-n-ie książki przez Marka, wy-pi-wszy herbatę read-TH-ES-ie book $_{GEN}$  by Marek pref-drink-p.prt tea $_{ACC}$

Finally, the last test concerns the ability to control the Subject of a depictive secondary predicate. Again, -NO/TO fares best with respect to this test. Depictives in the agreeing Periphrastic Passive, as well nominalization in -nie/cie with a by-phrase seem quite marginal ((113b-c))  $^{33}$ . As before, the hardest judgement concerns nominalization in -nie/cie without any overt DP ((113d)), whereas the one with DP<sub>GEN</sub> is only slightly deviated ((113e)).

- (113) a. Ten obraz mal-owa-n-o chyba pijanym. this picture $_{NOM}$  paint-TH-ES-o probably drunk $_{INSTR}$  'Someone was probably painting this picture drunk.'
  - b. ??Ten obraz był chyba mal-owa-n-y pijanym. this picture $_{NOM}$  be $_{pst.3sg.m}$  probably paint-TH-ES-m drunk $_{INSTR}$  intended: 'This picture was probably painted drunk.'
  - c. ??mal-owa-n-ie obrazu przez Janka pijanym paint-TH-ES-ie picture $_{GEN}$  by Janek drunk $_{INSTR}$  intended: 'painting the picture by Janek drunk'
  - d. (?)?mal-owa-n-ie obrazu pijanym paint-TH-ES-ie picture $_{GEN}$  drunk $_{INSTR}$  'painting the picture drunk'
  - e. (?)Janka mal-owa-n-ie obrazu pijanym Janek $_{GEN}$  paint-TH-ES-ie picture $_{GEN}$  drunk $_{INSTR}$  'Janek's painting the picture drunk.'

I recapitulate the results of Subjecthood tests in 4.7:

<sup>&</sup>lt;sup>33</sup>The judgemetnts here are also delicate due to the fact that not all speakers allow INSTRUMENTAL depictives to begin with. For those speakers, however, who do, the relevant contrast seems to obtain.

test	-NO/TO	Pass	-nie/cie	-nie/cie	-nie/cie
			+ by		+  GEN
control into	OK	*	*	(?)?	?
pres.prt					
control into	OK	*	*	(?)?	?
p.prt					
binding	OK	(?)?	(?)?	OK	OK
of poss.refl					
depictive	OK	??	??	(?)?	(?)

Table 4.7: Subjecthood tests

Summarizing the results of these tests for argumenthood, it seems that the the covert argument of -NO/TO passes all the relevant tests, and in this sense behaves as a full fledged argument. As far as control into participial clauses goes, this stands in a striking contrast to both Periphrastic Passive and the nominalization in -nie/cie with a by-phrase. Binding of reflexive possessive, however, seems to be already more permissive, in the sense that it is also possible, though slightly deviated and only for some speakers, out of the by-phrase. Also, the depictive seems to be quite permissive, although there is still a contrast between -NO/TO and Periphrastic Passive or nominalization with a by-phrase. The nominalization with  $DP_{GEN}$  seems to pattern in between the -NO/TO and the Periphrastic Passive with respect to all the relevant tests, except for reflexive binding, where it patterns with -NO/TO. Last but not least, the hardest judgements concern the nominalization without any overt Agent. Now, I turn to one more test, which requires discussion, i.e. compatibility with reflexive-marked verbs. Here the judgements are crystal clear.

# 4.3.7 Compatibility with the reflexive clitic

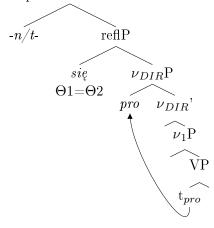
One more issue that confirms the difference in the status of the external argument in all the three uses of the Event Separator -n/t- is availability of reflexive-marked verbs. Since I have argued above that Impersonal -NO/TO construction in fact involves a nonovert Subject embedded below the participial morphology (i.e. pro-arb), as opposed to the regular Passive, where only an optional more adjunct-like by-phrase is present, we expect certain effects associated with its presence in the former and absence in the latter. I also proposed an account of reflexive-marked verbs in section 3.1. Consider the examples of  $Reflexiva\ Tantum$ , anticausative, prefix-induced, and reflexive verbs coocurring with Periphrastic Passive in (114) and Impersonal Passive in (115):

- (114) a. \*Marek był poc- $\varnothing$ -on-y się. Marek be $_{pst.3sq.m}$  sweat-TH-ES-3sg.m refl
  - b. \*Marek został przewróc- $\varnothing$ -on-y się. Marek become $_{pst.3sq.m}$  overturn-TH-ES-3sg.m refl
  - c. \*Marek został za-koch-a-n-y się. Marek become $_{pst.3sq.m}$  pref-love-TH-ES-3sg.m refl
  - d. \*Marek został u-czes-a-n-y się. Marek become $_{pst.3sq.m}$  pref-comb-TH-ES-3sg.m refl
- (115) a. Poc-Ø-on-o się. sweat-TH-ES-o refl 'Someone was sweating.'
  - b. Przewróc-Ø-on-o się. overturn-TH-ES-o refl 'Someone overturned.'
  - c. Za-koch-a-n-o się.
    pref-love-TH-ES-o refl
    'Someone fell in love.'
  - d. U-czes-a-n-o się. pref-comb-TH-ES-o refl 'Someone combed.'

With the findings about the reflexive marker from section 3.1, as well as the hypothesis concerning both Impersonal -NO/TO and Periphrastic Passive (cf. (92) and (93)), we may now proceed to explain the contrast between (114) and (115). Traditionally, these facts are taken to reflect Marantz's (1984) ban on Vacuous Dethematization. Since both the participial morphology, as well as the reflexive one are taken as dethematizing the external argument, the same operation cannot be performed twice. This explanation is no longer available to us in view of the fact that the function of the relevant morphology is not 'dethematizing' in any sense. In fact, it is hard to see what 'dethematizing' would amount to in derivational syntactic terms.

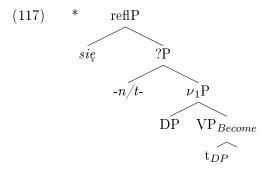
I have argued that the reflexive heads a projection in  $f_{seq}$ , the semantics of which is licensing identification of two  $\Theta$ -roles on one DP: the external one with the internal one. Consider first how that derivation would converge in the case of Impersonal Passive -NO/TO:





Since there are two  $\Theta$ -positions available in the complement of the reflexive, a DP with two  $\Theta$ -features can occur in the Numeration, and the identification of these two features will be appropriately licensed by the reflexive clitic<sup>34</sup>. In (116) I only illustrated the case of a reflexive (115d), but it should be borne in mind that all the four cases, *mutatis mutandis*, will be derivable. Thus, with anticausatives, stative  $\nu_1$  would be involved, whereas with prefixinduced reflexives, the reflexive would be identifying Resultee and Subject of  $\nu_{DIR}$ P. In (116) I also did not represent the *lavish insertion* for the Event Separator, since it does not play a role in the case at hand, but it might with agreeing Periphrastic Passive.

Now, consider the hypothetical derivation of reflexive-marked agreeing Periphrastic Passive.



Thus, the proposed explanation for the incompatibility of the reflexive clitic with agreeing Periphrastic Passive is that the thematic feature attracted to  $\operatorname{Spec}, \nu_1 P$  is not visible to the reflexive and hence the relevant DP bears only one  $\Theta$ -role for the purposes of the reflexive. I remain agnostic as to the

<sup>&</sup>lt;sup>34</sup>The reader will note that this implies phrasal movement of  $\nu_{DIR}$ P to a position preceding the Event Separator, since head movement in order to create the resulting suffixal configuration would have to skip reflP and thus violate the Head Movement Constraint (cf. Travis (1984)).

upper boundary of the ES (therefore the projection is labelled ?P). Note, however, that there is an alternative solution available. Suppose that the Event Separator attaches low and 'swallows up' the projection headed by the reflexive located in the region between  $\nu_{DIR}$ P and initP (the reader will recall that ES always corresponds to the default value of the projection hence the absence of the relevant projection it stands for). This way, the reflexive will never have a chance to be spelled out. I decide against the latter solution in view of another type of data from outside Polish, i.e. Romance so-called Faire Infinitive and Faire ...par causatives. As seen in (118), the argument in a par-phrase (which occurs also in Passive sentences) does not cause Relativized Minimality violation with respect to the reflexive clitic, as opposed to the argument in an a-phrase.

(118) Pierre s'est fait embrasser par Marie/\*à Marie. French 'Pierre<sub>i</sub> made Marie kiss him<sub>i</sub>.' (Kayne, 1975:(122a))

It follows then that it cannot be the *lavish insertion* of the ES -n/t- in Polish that is responsible for the ungrammaticality of reflexive verbs in agreeing Passive.

From that perspective it is instructive to consider the behavior of the nominalization in -nie/cie. (119) shows that the reflexive marker is perfectly possible with the nominalization in -nie/cie with GENITIVE Agent, or else without any overt external argument. When the Agent is not expressed, the reading is of an arbitrary pro type:

- (119) a. (Marka) poce-n-ie się przy pracy (Marek $_{GEN}$ ) sweat.TH-ES-ie refl at work '(Marek's) sweating at work'
  - b. (Marka) przewróce-n-ie się na lodowisku (Marek $_{GEN}$ ) overturn.TH-ES-ie refl at ice-rink '(Marek's) falling on the ice-rink'
  - c. (Marka) za-koch-a-n-ie się w Ewie (Marek $_{GEN}$ ) pref-love-TH-ES-ie refl in Ewa '(Marek's) falling in love with Ewa'
  - d. (Marka) uczes-a-n-ie się (Marek $_{GEN}$ ) comb-TH-ES-ie refl '(Marek's) combing'

Unsurprisingly, the moment the external argument is expressed in an oblique by-phrase, the possibility to embed a reflexive marker disappears:

(120) a. \*poce-n-ie się przez Marka sweat.TH-ES-ie refl by Marek

- b. \*przewróce-n-ie się przez Marka overturn.TH-ES-ie refl by Marek
- c. \*za-koch-a-n-ie się przez Marka pref-love-TH-ES-ie refl by Marek
- d. \*uczes-a-n-ie się przez Marka comb-TH-ES-ie refl by Marek

What this means is that in the case of the nominalization in -nie/cie with Genitive Agent, the relevant participial morphology has to still attach on top of the projection introducing a  $\Theta$ -feature relevant for the reflexive identification. Since all of the Subjecthood diagnostics investigated above (as well as those to be investigated) seemed to indicate an intermediate status of the Genitive argument (i.e. more argument-like than the by-phrase, and less argument-like than arbitrary pro), there arises a need for more fine-grained  $f_{seq}$  than the one assumed so far. In other words, we need another projection intervening between  $\nu_1$  and the light verb relevant for the Impersonal construction. The incarnation of the nominalization with an Agent denoting by-phrase, on the other hand, seems to be identical in all relevant respects to the agreeing Periphrastic Passive. I will develop this idea structurally below, once the semantic restrictions on the arguments are examined.

### 4.3.8 Semantic restrictions on the external argument

One final argument that might be of help in establishing the levels at which nominalization attaches in each of the respective constructions, relates to the semantic requirements on the interpretation of the external argument. Since I have hypothesized (cf. section 1.7) that semantic restrictions arise when a DP travels through various verbal functional projections, these semantic restrictions might be indicative of the level in  $f_{seq}$  where a particular argument has to stop.

Firstly, the oblique Agent in a by-phrase in both Periphrastic Passive, as well as the relevant incarnation of -nie/cie nominalization does not seem to show any semantic restrictions, as illustrated in (121). Full DPs, both animate and inanimate are allowed in a by-phrase, as well as pronouns.

(121) a. Wioska została zniszczo-n-a przez żołnierzy/ burzę/ village become $_{pst.3sg.f}$  destroy.TH-ES-f by soldiers/ storm/ niego.

him

- 'The village has been destroyed by the soldiers/ the storm/him.'
- b. zniszcze-n-ie wioski przez żołnierzy/ burzę/ niego destroy.TH-ES-ie village by soldiers/ storm/ him 'destruction of the village by the soldiers/ the storm/ him'

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However, the range of possible Agents with the other incarnation of the nominalization in -nie/cie is not equally unrestricted. The preverbal  $\mathrm{DP}_{GEN}$  can only be [+human]. Even [+animate] DPs are considerably degraded:

- (122) a. Denerwuje mnie Marka/ jego drap-a-n-ie się annoy $_{pres.3sg}$  me $_{ACC}$  Marek $_{GEN}/$  his scratch-TH-ES-ie refl po brzuchu. at stomach
  - 'Marek's/ his scratching his stomach annoys me.'
  - b. ??Denerwuje mnie psa drap-a-n-ie się po brzuchu. annoy $_{pres.3sg}$  me $_{ACC}$  dog $_{GEN}$  scratch-TH-ES-ie refl at stomach intended: 'The dog's scratching his stomach annoys me.'
  - c. \*Pożaru zniszcze-n-ie wioski nie trwało długo. fire $_{GEN}$  destroy.TH-ES-ie village neg last $_{pst.3sg.n}$  long intended: 'The fire's destroying the village did not last long.'

Interestingly, when the implied Agent is not expressed overtly with the nominalization in -nie/cie, unrestricted Agent construal arises. Yet, this is not true if a verb is reflexive-marked. Thus, nominalizations of reflexive verbs have a necessarily human interpretation of the implied argument (in (123)). Therefore, verbs taking only inanimate Subjects cannot occur in these nominals (in (124)).

- (123) a. Bardzo mnie denerwuje to ciągłe przewrac-a-n-ie very me\_{ACC}annoys this constant overturn-TH.SI-ES-ie  $\bf sie$  refl
  - 'Someone/my constant falling gets on my nerves.'
  - b. Kręce-n-ie **się** w kółko nie polepsza sytuacji. spin.TH-ES-ie refl in circle neg improve situation 'Someone's going in circles doesn't improve the situation.'
  - c. Cof-a-nie się ma zawsze skutki uboczne. withdraw-TH-ES-ie refl has always effects sideways 'Someone's withdrawing always has side effects.'
- (124) a. \*Aktualiz-owa-nie **się** zwróciło moją uwagę. update-TH-ES-ie refl turn<sub>pst.3sg.neut</sub> my attention intended: 'Becoming updated drew my attention.'
  - b. \*Dłuże-n-ie **się** nigdy nie jest przyjemne. long.TH-ES-ie refl never neg is pleasant intended: 'Being boring is never pleasant.'
  - c. \*Z niecierpliwością czekam na goje-nie **się**. with impatience wait $_{pres.1sg}$  for heal.TH-ES-ie refl intended: 'I am looking forward to healing.'

Since with reflexive verbs, the nominalization needs to include two thematic positions in its complement, and since there is no overt argument in the case at hand, and the interpretation of the covert one is [+human], I conclude that -nie/cie nominalizations of reflexive verbs have to involve pro-arb, exactly as in the case of Impersonal -NO/TO construction.

I summarize the results of the investigation into the semantic properties of external arguments in Table 4.8.

construction	interpretation	
Periphrastic Pass	unrestricted	
-nie/cie + by DP	unrestricted	
-nie/cie alone	unrestricted	
$-nie/cie + \mathrm{DP}_{GEN}$	human	
-nie/cie with refl. verb	human pro-arb	
-NO/TO	human pro-arb	

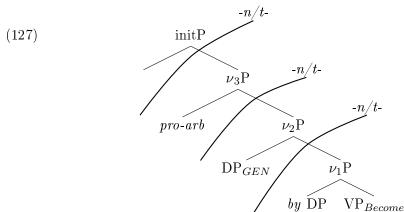
Table 4.8: Semantic properties of external arguments

The semantic restrictions in 4.8 are arranged starting from least restricted until the most restricted *pro-arb*. Now, suppose these features are actually interpretable on a noun and they create an implicational hierarchy as in (125) (cf. also Silverstein (1976) in the context of person-split ergativity):

Assume these features form the nominal functional sequence. Now, since an argument will peel its functional layers by moving through verbal  $f_{seq}$ , it follows that the lower the level in verbal  $f_{seq}$ , the less restrictions on the interpretation of a DP. We have already seen that this is the case for the relevant difference between the Periphrastic Passive and Impersonal -NO/TO. In the former the Event Separator attaches at the level on top of  $\nu_1$ , swallowing the higher thematic positions. Therefore the external argument is 'frozen' in an oblique shape. Now, since the nominalization in -nie/cie with DP<sub>GEN</sub> displays the semantic restrictions that are somewhat in between the Passive and -NO/TO (i.e. a human, but possibly non-pronominal DP), I suggest that there is an intermediate level on top of which the nominalization in  $-nie/cie + DP_{GEN}$  can attach. That means that the level relevant for -NO/TO will have to be pushed upwards. Assuming a more general subscripting convention  $\nu_1$ ,  $\nu_2$ , etc. for the subsequent light verb projections, let me propose the following structure:

(126) 
$$\left[ \inf_{\text{initP}} \left[ \nu_{3P} \text{ pro}_{arb} \left[ \nu_{2P} \text{ DP}_{human} \left[ \nu_{1P} \text{ DP} \right] \right] \right] \right]$$

The way Event Separating morphology interacts with the above fine-grained  $f_{seq}$  is illustrated in (127):



The Theme<sub>high</sub> will spell out different subsets of its lexical specification represented now in a generalized format in (128).

(128) Theme<sub>high</sub>: [ R (,V<sub>Become</sub>, 
$$\nu_1$$
 (, $\nu_2$  (, $\nu_3$  (,... (initP )))))]<sup>35</sup>

The Event Separator will be inserted at different levels, also in accordance with its lexical specification, which happens to overlap with Theme<sub>high</sub> in Polish, and is represented in (129).

(129) ES -n/t-: [(
$$V_{Become}$$
,  $\nu_1$  (, $\nu_2$  (, $\nu_3$ ,))) init ]

When the Theme is most down-squeezed to spell out only R (an option available in general with Theme<sub>high</sub>, but only for some speakers and some stems with inchoative -n- Theme), the ES spells out its full lexical specification and this configuration yields an adjectival stative passive not discussed in this section. The next scenario might in principle involve up-sqeezing the ES one projection higher so that it attaches on top of  $V_{Become}$ . Yet, this scenario is prohibited (i) in virtue of the existence of another lexical item, namely -t-(cf. section 4.3.1), which does not require any down- or up-sqeezing and is thus to be preferred by the Elsewhere Condition, and (ii) in virtue of the bracketing notation in (129), which makes the spell out of  $V_{Become}$  contingent on the spell out of  $\nu_1$ . This results in the lack of resultative participles with -n/t. The next three configurations illustrated in (127) are in focus in the present section. The first one involves ES merging on top of the first light verb projection, and is the configuration relevant for agreeing Periphrastic Passive, as well as nominalization with a by-phrase. The reader will observe that the lexical specification in (129) assumes that at least initP is an obligatorily spelled out projection, and ES cannot be down-squeezed. Therefore the embedded argument cannot check the higher thematic features, nor peel its functional layers, and is hence left in a frozen oblique shape in Spec,  $\nu_1 P$ .

 $<sup>^{35}</sup>$ As already observed, in case Theme<sub>high</sub> deadjectival stems involve insertion of the Theme into some other (yet undiscovered) projection above RP, and the adjectival morphology inserted, as usual, for the subsequence [RP,PP], then the feature R needs to be also made optional in the lexical specification of Theme<sub>high</sub>.

The question that arises is what is the difference between the nominalization and the Periphrastic Passive. The answer to this question will be related to the notion of  $f_{seq}$  'abortion' and I will come back to it in section 4.3.10. In the intermediate case, where the Theme<sub>high</sub> spells out the chunk including  $\nu_2$ , the ES merges on top of this structure. Finally, when the Theme is closest to spelling out its full lexical specification, Impersonal -NO/TO arises, with the ES lexicalizing only its obligatory projection initP . It has to be emphasized again that ESs are different from Themes in the sense that they correspond to default values (i.e. the absence) of the heads that they lexicalize.

As has become clear in the discussion of various tests above, the nominalization in -nie/cie behaves multiply ambiguously. Sometimes it is analogous to the Periphrastic Passive, and sometimes to Impersonal -NO/TO. Therefore, I suggest that it is in fact oscillating between the different points of attachment<sup>36</sup> When it occurs with a by-phrase, it attaches on top of  $\nu_1$ , similarly to a Periphrastic Passive. As the by-phrase is always only optional, the same analysis holds of the nominalization without an overt external argument. What, however, of the cases of nominalization without an overt Agent but with the detectable presence of  $pro_{arb}$ , as e.g. in nominalizations of reflexive verbs in (130):

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(130) czes-a-n-ie się
comb-TH-ES-ie refl
'combing (oneself)'
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As is evident from (127) the assumption in the present thesis (to be explained below) is that arbitrary pro is only available at a certain level in  $f_{seq}$  when the argument has peeled enough of its extended projection, in the case of (127) - at the level of  $\nu_3 P$ . That implies that whenever there are traces of pro in the nominalization, as in (130), where it is required by the reflexive identification requirement, the structure has to be identical to the Impersonal -NO/TO construction as far as the negotiation of spell out between the Theme and the ES goes. This, in turn, results in a prediction that the remaining properties should also be identical for -NO/TO and the nominalization in (130). What constitutes a certain problem for this hypothesis is ACC Case on the object, which never seems to be retained in the nominalization. Yet, the presence of ACC on the object cannot in fact be verified for reflexive verbs analogous to (130), but only for transitive ones, as in (131):

<sup>&</sup>lt;sup>36</sup>Here I abstract away from the other two types of low nominalizations: the 'fact' nominalization with the configuration analogous to stative adjectival passive, and the speaker-dependent resultative nominalization for the speakers with lexical entry in (76) from section 4.3.1. If these two are also taken into consideration, then in fact the nominalization in -nie/cie is four-way ambiguous. Given the proposed fine-grained functional structure, this seems to be confirming evidence.

(131) czes-a-n-ie Ewy/\*Ewę comb-TH-ES-ie  $\text{Ewa}_{GEN}/\text{*Ewa}_{ACC}$  'combing Ewa'

The problem is that, although (131) might in fact be the lower instantiation of the nominalization (i.e. ES merging on top of  $\nu_1$ ), we should in principle expect the higher one as well. In other words, it is not clear why the higher nominalization with retained ACC Case should be blocked, and allowed only when necessary, as in (130). Even if this problem could be somehow circumvented, e.g. by tinkerng with the mutual interaction of the lexical entry of -n/t- and the nominal suffixes: -i-e, it is considerably aggrevated by (132):

(132) czes-a-n-ie Ewy/\*Ewę swoim grzebieniem (nie comb-TH-ES-ie  $\text{Ewa}_{GEN}$ /\*Ewa $_{ACC}$  refl. $\text{poss}_{INSTR}$  comb $_{INSTR}$  (neg jest dobrym pomysłem) be $_{3sg.pres}$  good idea) 'combing Ewa with one's comb (is not a good idea)'

Since the presence of pro is forced by the reflexive possessive which requires an antecedent, one would expect ACC Case on the object, contrary to fact. Thus, in view of ACC Case differences between the Impersonal construction and the nominalization, I suggest that the presence of pro with the nominalization is a result of the external argument rasing to a higher projection in the nominal  $f_{seq}$ . Yet, the nominalization in -nie/cie never involves the structure identical to Impersonal -NO/TO construction, where ES merges on top of  $\nu_3$ P. The highest nominalization in -nie/cie involves ES up-squeezed to spell out  $\nu_3$  and initP. Possibly, this is due to the lexical specification of the nominal suffix -i- distinguishable in the suffixal ending -ie. I leave this issue for future research.

Since both the Impersonal -NO/TO construction and the nominalization, however, involve  $pro_{arb}$ , we expect certain properties to cluster. Thus, e.g. whenever a reflexive verb occurs in a nominalization without an overt Agent, the only possible interpretation of the implied argument should be [+human] (as in fact has been shown to be true above - cf. (123)). Moreover, all the tests that gave positive results for Impersonal -NO/TO should also come out right. With non-reflexive verbs the judgements were very delicate. This was because the -nie/cie nominalization without an overt Agent is always in principle ambiguous between a structure with low nominalization attachment (and an implied by-phrase) and a higher nominalization attachment (and covert pro-arb). The difficulty with the judgements was already indicated in Table 4.7 by "(?)". Now, with the reflexive verbs, it seems that indeed the judgements are clearer.

- (133) a. krztusze-n-ie się, próbu-jąc zaczerpnąć powietrza (jest choke.TH-ES-ie refl try-pres.prt take.in $_{inf}$  air (is objawem niepożądanym). symptom undesirable) 'choking, trying to take a breath (is an undesirable symptom)'
  - b. gub-i-en-ie się pijanym (nie jest mile widziane) lose-TH-ES-ie refl drunk $_{INSTR}$  (neg is nicely seen) 'getting lost drunk is not well looked upon'
  - c. przygląd-a-n-ie się sobie $_{DAT}$  watch-TH-ES-ie refl refl $_{DAT}$  'watching oneself'

As in Impersonal -NO/TO construction, the covert argument of the nominalization of reflexive verbs can control the Subject of a participial clause (in (133a)), the secondary adjectival predicate in Instrumental case (in (133b)) and reflexive in the indirect object position (in (133c)). The examples in (133) should not be compared with examples of nonreflexive verbs in -nie/cie since the possibility of the high nominalization attachment analysis will obliterate the contrast anyway. Instead, they should be compared with equivalent -NO/TO examples:

- (134) a. Krztuszo-n-o się próbując zaczerpnąć powietrza. choke-ES-o refl try-pres.prt take.in $_{inf}$  air 'Someone was choking trying to take a breath.'
  - b. Gubio-n-o się pijanym lose-ES-o refl drunk $_{INSTR}$  'Someone/People were getting lost drunk.'
  - c. Przygląda-n-o się sobie watch-ES-o refl refl $_{DAT}$  'Someone/People were watching themselves/each other.'

Since there is no difference in judgements detectable between (133) and (134), I conclude that the three-way ambiguous analysis of the nominalization, i.e. (i) ES on top of  $\nu_1$ , (ii) ES on top of  $\nu_2$  and  $DP_{GEN}$ , and (iii) ES on top of  $\nu_2$  and  $DP_{GEN}$  peeled further in the nominal  $f_{seq}$ , is on the right track. Now I turn to further substantiation of the various levels at which Event Separation takes place, namely idiom preservation.

### 4.3.9 Degrees of idiom preservation

It is a well known fact that idioms differ with respect to the possibility of passivization. Consider the contrast in (135):

- (135) a. #The bucket has been kicked. (literal only)
  - b. #Ends were being made to meet. (literal only)

- c. No attention is being paid to minor officials.
- d. A great deal was being made of your resignation.

In (135ab) the idiomatic meaning is not preserved in the passive, whereas it is in (135cd). On the other hand, we also find a further contrast observed in Emonds (2000:178), i.e. the contrast between verbal and adjectival passives, where idiomatic objects are only available with the former type of structure (cf. (135cd)), but not with the latter (cf. (136)):

- (136) a. \*No attention seems paid to minor officials.
  - b. \*A great deal sounded made of your resignation.

These three different types of syntactic flexibility of idioms suggest a possibility that in fact idioms involve frozen chunks of structure of different sizes. In other words, if it turns out that no idioms are available with stative adjectival passives, it might be because Event Separation in this case happens too quickly to allow any 'frozen subsequence' to be preserved. Under the present assumptions in fact, stative passives involve only RP embedded under the ES. This explains (136). Now, suppose that there are idioms which are frozen only up until  $\nu_1$ . In this case, whatever happens at a higher level of  $f_{seq}$  does not influence idiomatic meanings. Thus, whether it is the Theme that spells out higher light verb projections (as in an active clause), or ES, does not have any bearing on idiom preservation. This would under present assumptions correspond to passivizable idioms as (135cd). On the other hand, there might be idioms involving large frozen chunks of the functional sequence (e.g. up until initP), and these would not tolerate any Event Separation at a level below or at initP.

This way of conceiving of idioms yields a prediction important for our present considerations. Although there is no way to predict which idiom involves how big a frozen subsequence, we expect the three relevant constructions to pattern in a specific way with respect to idiom preservation:

- (i) the agreeing Periphrastic Passive as well as nominalization with a by-phrase to be the most restrictive of all three, and allow the smallest number of idiomatic readings;
- (ii) the nominalization with the Genitive Agent to fall in between the agreeing Passive and the Impersonal -NO/TO construction with respect to idiom preservation;
- (iii) the Impersonal -NO/TO construction to be the most permissive of all in allowing a wide range of idiomatic readings.

All of these predictions seem in fact borne out by the data. I divide idioms into three types depending on the size of a frozen structure that they involve. In all of the cases judgements are difficult, as speakers might differ in the size of the subsequence that they froze for a particular idiom. What is of importance, however, is the direction of the gradience of judgements depending on a type of the construction. For comparison, I also include adjectival passives

as the most restrictive of all when it comes to idiom preservation.

#### 1. small idioms

These are the idioms where the smallest subsequence of  $f_{seq}$  (i.e. up until  $\nu_1 P$ ) needs to be preserved. Therefore, neither verbal passivization ((137c) and (138c)) nor nominalization ((137de) and (138de)) and impersonalization ((137f) and (138f)) will affect their interpretation. The only construction where the  $f_{seq}$  has been aborted too early is the adjectival passive in (137b) and (138b). The latter can only receive a literat reading, whereas the former is so strongly idiomatic, that even the literal reading seems to be unavailable.

- (137) a. rozpuści-ć wici spread.out.TH-inf threads $_{ACC}$  'to spread the word'
  - b. \*Wici wydają się rozpuszczo-n-e. threads $_{NOM}$  seem refl spread.out.TH-ES-non.vir
  - c. Wici zostały rozpuszczo-n-e. threads $_{NOM}$  become $_{3non.vir.pst}$  spread.out.TH-ES-non.vir 'The word has been spread.'
  - d. rozpuszcze-n-ie wici przez mieszkańców spread.out. TH-ES-ie threads $_{GEN}$  by inhabitants 'spreading the word by the inhabitants'
  - e. Marka rozpuszcze-n-ie wici Marek $_{GEN}$  spread.out.TH-ES-ie threads $_{GEN}$  'Marek's spreading the word'
  - f. Rozpuszczo-n-o wici spread.out.TH-ES-o threads $_{ACC}$  'Someone has spread the word.'
- (138) a. obal-i-ć butelkę overturn. TH-inf bottle $_{ACC}$  'to kill a bottle'
  - b. # Butelka wydaje się obalo-n-a. bottle $_{NOM}$  seems refl overturn.TH-ES-sg.f 'The bottle seems overturned.' (literal only)
  - c. Butelka została obalo-n-a w pół godziny. bottle become $_{sq.f.pst}$  overturn.TH-ES-sg.f in half hour

'The bottle has been killed in half an hour'

d. obale-n-ie butelki przez budowlańców overturn. TH-ES-ie bottle $_{GEN}$  by builders 'killing a bottle by the builders'

- e. budowlańców wieczne obala-n-ie butelki builders $_{GEN}$  constant overturn. TH. SI-ES. ie bottle $_{GEN}$  w krzakach in bushes 'the builders' constant killing a bottle in the bushes'
- f. Wczoraj obalo-n-o tu butelkę. yesterday overturn.TH-ES-o here bottle<sub>ACC</sub> 'Yesterday people have killed a bottle here.'

#### 2. intermediate idioms

This type of idiom requires a frozen sequence up till  $\nu_2$ P. This implies that no Event Separation can happen before that level. For this reason the adjectival passive ((139b) and (140b)), agreeing verbal passive ((139c) and (140c)), as well as the nominalization with a by-phrase ((139d) and (140d)) all destroy the idiom configuration. The nominalization with the Genitive Agent ((139e) and (140e)), however, as well as the Impersonal construction ((139f) and (140f)) both preserve the idiomatic reading.

- (139) a. zrob-i-ć (na kims) wrażenie make-TH-inf on someone impression $_{ACC}$  'to make an impression (on someone)'
  - b. \*Wrażenie wydaje się zrob-i-on-e. impression $_{NOM}$  seems refl make-TH-ES-sg.n
  - c. \*Wrażenie zostało na nim zrob-i-on-e. impression become $_{3sg.n.pst}$  on him make-TH-ES-sg.n
  - d. \*zrob-i-en-ie wrażenia przez Marka (na prezydencie) make-TH-ES-ie impression $_{GEN}$  by Marek (on president)
  - e. (?)Marka ciągłe rob-i-en-ie wrażenia  $Marek_{GEN}$ constant make-TH-ES-ie impression $_{GEN}$  on na prezydencie president 'Marek's constant making an impression on the president'
  - f. Zrob-i-on-o wrażenie na prezydencie. make-TH-ES-o impression $_{ACC}$  on president 'Someone made an impression on the president.'
- (140) a. rob-i-ć z igły widły make-TH-inf from needle fork 'to make a mountain out of a molehill'

- b. #Widły wydają się rob-i-on-e z igły. fork $_{NOM}$  seem refl make-TH-ES-neut from needle intended: 'a mountain seems to be made out of a molehill'
- c. #Widły zostały zrob-i-on-e z igły.  $fork_{NOM.non.vir}$  became make-TH-ES-non.vir from needle intended: 'a mountaint has been made out of a mole-

hill'

- d. #rob-i-en-ie z igły wideł przez Marka make-TH-ES-ie from needle fork $_{GEN}$  by Marek intended: 'making a mountaint out of a molehill by Marek'
- e. (?) Marka ciągłe rob-i-en-ie z igły wideł Marek $_{GEN}$  constant make-TH-ES-ie from needle fork $_{GEN}$ 
  - 'Marek's making a mountain out of a molehill'
- f. Często rob-i-on-o z igły widły. often make-TH-ES-o from 'People have often been making a mountain out of a molehill'

#### 3. large idioms

It is quite hard to find idioms restricted to finite clauses in general, and probably impossible when it comes to transitive large idioms. That might suggest that for some reason frozing up to  $\nu_3$  is very rare. The following are the two examples I can think of. Note that due to intransitivity of (142), passive structures cannot be verified. Still, the expected result is conspicuous: if the Impersonal construction is ungrammatical, all of the other constructions involving lower Event Separation are also ungrammatical.

- (141) a. da-ć się lub-i-ć give-inf refl like-TH-inf 'be congenial'
  - b. \*Marek wydaje się da-n-y się lubić. Marek seem $_{3sg.pres}$  refl give-ES-sg.m refl like $_{inf}$  intended: 'Marek seems to be congenial.'
  - c. \*Marek został da-n-y się lubić Marek become $_{3sg.m.pst}$  give-ES-sg.m refl like $_{inf}$
  - d. \*da-n-ie się lubić przez Marka give-ES-ie refl like $_{inf}$  by Marek intended: 'being congenial by Marek'
  - e. \*Marka ciągłe da-wa-n-ie się lubić  $Marek_{GEN}$  constant give-SI-ES-ie refl like $_{inf}$  intended: 'Marek's constant being congenial'

- f. \*Da-n-o się lubić. give-ES-o refl like intended: 'Someone was congenial.'
- a. wyskocz-y-ć jak Filip z konopi jump-TH-inf as Filip from hemp 'to suddenly say something irrelevant'
- b. \*wyskocze-n-ie jak Filip z konopi przez Marka jump.TH-ES-ie as Filip from hemp by Marek intended: 'suddenly saying something irrelevant by Marek'
- c. ??Marka wyskocze-n-ie jak Filip z konopi  $Marek_{GEN}$  jump.TH-ES-ie as Filip from hemp intended: 'Marek's sudden saying something irrelevant'
- d. ??Wyskoczo-n-o jak Filip z konopi jump.TH-ES-o as Filip from hemp intended: 'Someone suddenly said something irrelevant'

Last but not least, I turn to the somewhat procrastinated answer to the question concerning nonovert character of the external argument in Impersonal -NO/TO.

#### 4.3.10 pro-arb and speculations on Aux selection

Once the details of the analysis of Impersonal -NO/TO construction have been disclosed, we can proceed to answer the question relating to covert pro. The reader will recall from section 4.2 that it was a puzzling fact that Polish, differently from Macedonian and all other languages productively displaying active participial morphology, should only allow the active -n/t- participle with the covert argument pro. I have argued then that this is due to the fact that Polish lacks Auxiliary HAVE. That is why something has to be done to enable the occurrence of copular BE, as in Italian Impersonal si construction (and, in fact all other reflexive-marked verbs). Now, I am in a position to provide a more accurate explanation of the two issues:

- What enables Auxiliary switch in Impersonal constructions?
- Why should Impersonal constructions license pro-arb arguments?
- Why should Polish -NO/TO be restricted to  $pro_{arb}$  arguments?

All of these questions are interrelated. Let me start with the ways  $pro_{arb}$  emerges (i.e. the second question). The answer to this question that I will suggest has been inspired by the account of pro-drop presented in Holmberg (2004), referring also to Tomioka (2003). The conclusion in Tomioka (2003) is that Japanese pro-drop is always 'N-bar ellipsis' (that is ellipsis of NP, as

opposed to DP). Thus, the line that Holmberg takes is that null pronouns are derived exactly as overt pronouns, assigned Case and spelled out, but subsequently deleted in Phonology. This deletion/ellipsis is subject to recoverability under ordinary rules and conventions governing ellipsis.

I would like to suggest that something similar takes place in Impersonal constructions. The Event Separator blocks an argument from moving to Spec,initP, as the default value of initP spelled out by the ES has no thematic features (cf. the proposal in (160), section 3.2.3). In fact, it forces the argument to be frozen in Spec, $\nu_3$ P (previously called  $\nu_{DIR}$ P). By moving to this positions, however, the argument has already been peeled so much (i.e. to the level of [+human pronoun]) that certain languages will lack a lexical item to spell out the relevant bundle of features. This is exactly the case, I submit, in Polish (as well as Italian). Other languages, however, do possess lexical items to spell out human pronominals, e.g. French on or German and Swedish Man. The fact that substantiates this type of conceiving of the emergence of  $pro_{arb}$  is the distribution of the relevant elements. E.g. in Swedish Man can occur only in Subject position, but never as the object (cf. (142a) vs (142b)).

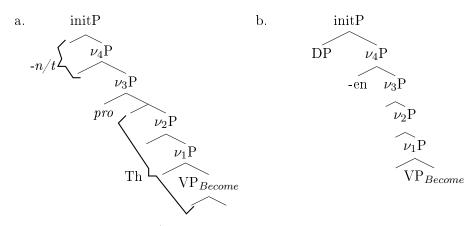
- (142) a. Man gör sitt bäst.<sup>37</sup> 'One does one's best.'
  - b. \*De frågar man aldrig. 38 intended: 'They never ask one.'

Suppose now that active participles in Mecedonian/Romance/Germanic involve ES inserted at exactly the same level as -n/t- in Polish Impersonal -NO/TO, as I in fact argued in section 4.2. I propose that the two relevant structures look as in (143) and (144).

<sup>&</sup>lt;sup>38</sup>Observe, however, that there can be minute differences between the different Impersonal constructions across languages, e.g. in Polish -NO/TO the covert argument cannot be interpreted as a participant (i.e. either speaker or hearer), whereas this is apparently an option in (142a).

<sup>&</sup>lt;sup>38</sup>The possibility of *pro* - indirect objects in other languages, e.g. Polish or Italian (cf. (105) in section 4.3.6) might indicate that indirect object can also travel through the relevant positions. As I deal in this dissertation with external arguments, I leave the question open for future research.





In the Impersonal -NO/TO the initial merger of the argument will depend on whether there is a thematic feature on lower light verb projections (i.e.  $\nu_1$  and  $\nu_2$ ) or not. The reader will recall that these features are optional. If they are present, the argument will be Probed to these positions. The question that arises, however, is what forces the presence of a thematic feature on  $\nu_3$ P if these features are supposed to be optional in general. For this reason I assume that the presence of a  $\Theta$ -feature on  $\nu_1$ P implies the obligatory presence of all the thematic features on all the higher light verbs spelled out by the Theme<sub>high</sub><sup>39</sup>. Once the argument has been attracted to Spec, $\nu_3$ P,  $\nu_4$ P and initP are merged - both without any thematic features. Since they do not constitute any Probes for the external argument, the latter stays put. What would go wrong, however, if the last two projections did have thematic features and attracted the argument? The point is that when insertion takes place, the projections with thematic features cannot be spelled out by ES as it corresponds to default values of the projections it spells out.

As for the compound Tense construction in (143), on the other hand, up till  $\nu_4 P$  merger the derivation proceeds similarly as in -NO/TO (whether the light verbs display thematic features or not). Then, however, initP is merged with a thematic feature which attracts the external argument. The feature satisfaction can happen either through Remerge from the lower position or through Merge. Why then couldn't initP without a thematic feature be merged in compound Tenses? I suggest that this is because the participial morphology in the relevant languages is not lexically specified to spell out initP. That means, in turn, that if initP without a thematic feature were merged, there would be no item to spell it out, resulting in a crashing derivation.

The question is now how do these two structures relate to Auxiliary selection. Building on the gist of the analysis in Kayne (1993) I take HAVE/BE alternation to be dependent on the fact whether the external argument moves out

<sup>&</sup>lt;sup>39</sup>This fact might, again, indicate the hierarchical organization of  $\Theta$ -features.

of the transitive participle projection or not. In compound Tense in (143b) the external argument originates outside the participial projection (i.e. the highest projection spelled out by ES). In Polish Impersonal -NO/TO in (143a), on the other hand, the external argument never moves out past  $\nu_3$ P. In this case, however, the Auxiliary must be spelled out by BE. Furthermore, this copula remains covert due to the feature specification of  $pro_{arb}$  (i.e. [-Person], [-Number]). If Polish, for whatever reasons, lacks Auxiliary HAVE, then it follows that it cannot employ the structure in (143b).

# Category distinction and Aux selection

Finally, let me turn to the choice between the Auxiliary in the agreeing Periphrastic Passive (i.e. non-copular BE/BECOME) and the Auxiliary in the compound Tense, i.e. HAVE. This is the point at which the different paradigm markers following the Event Separator in the three constructions become crucial. I have already argued in section 4.2 for the nominal character of the ending -o in Polish Impersonal construction. The adjectival nature of the Gender-Number suffixes on passive participles are quite uncontroversial.

(144) a. czyta-n-y/a/e/i/e read-n-m/f/n/vir/non.virb. czyta-n-oread-o

This fact seems to suggest that different categorial status must be related to the lower spell out boundary of the Event Separator. To exploit Michal Starke's idea, the gist of the proposal is that there is only one category-neutral  $f_{seq}$ , but particular regions in it define traditional categories: the lowest region corresponds to adjectival functional sequence, an outgrown adjective becomes a noun, and finally an outgrown noun turns into a verb. If that was the case, then (144) would in effect confirm what I said about the differences between the Passive, nominalization in -nie/cie and Impersonal construction. Since the first one spells out the lowest region, its adjectival inflection is expected. The other two constructions would have to be spelling out already the region reserved for nouns. In other words, (145a) is analogous to (145b) - both are structures where BE selects for an adjectival complement. On the other hand, the transitive possessive verb HAVE in (146a) is analogous to a Perfective use of it in (146b) - both involve the relevant verb selecting a nominal complement.

- (145) a. The books were read.
  - b. The books were red.
- (146) a. Mary has some problems.
  - b. Mary has solved some problems.

That seems to suggest that apart from the usual lexical specification present with all lexical verbs, Auxiliaries need to also include information about the categorial status of their complement. For zostać ('become') discussed above (cf. (99)) the lexical entry might look as in (147):

$$(147) \qquad \sqrt{zost} + \mathrm{TH}_{high} : \left[ \ \nu_1 \ (,\nu_{DIR}(^*) \ (,....)) \right] \ + \ \mathbf{A}$$

(147) is a collapsed entry for both the lexical and the Auxiliary use of  $zosta\acute{c}$ ('become'). Now, if  $\nu_1$  is in fact the highest of the projections corresponding to an adjective, it means that zostać can take all sorts of complements on condition they do not lexicalize subsequences of  $f_{seq}$  larger than  $\nu_1 P$ . What this means is that apart from the verbal passive participles (corresponding to the maximal subsequence  $[\nu_1, V_{Become}, R]$ , the relevant verb can also take pure adjectives, stative participles, as well as resultative t-participles. This is illustrated in (148) for both BE and BECOME.

- (148)Maria jest/ została nie-zwycięż-on-a. Maria be<sub>3sg.pres</sub>/ become<sub>3sg.f.pst</sub> neg-conquer.TH-ES-f 'Maria is/ remained invincible.'
  - Maria jest/ została głupia. Maria be<sub>3sq.pres/</sub> become<sub>3sq.f.pst</sub> stupid. 'Maria is/ remained stupid.'
  - Maria jest/ o-głupia-ł-a. Maria be<sub>3sg.pres</sub>/ become<sub>3sg.f.pst</sub> pref-stupid.TH-ES-f 'Maria is/ remained stupified.'

The question is, however, what about the 'lexical' uses of BE(COME) with nouns. Consider (149).

(149)Jan jest/ król-em. został Jan be<sub>3sg.pres</sub>/ become<sub>3sg.m.pst</sub> king-sg.m.INSTR 'Jan is/ became (a) king.'

The important point about (149) is the obligatory INSTR case on the noun. I venture a speculation at this point to the effect that Instrumental morphology is in fact adjectival in nature<sup>40</sup>. One desirable consequence of this speculation would be that 'nouns' bearing INSTR case would not be appropriate Goals for Probes with nominal uninterpretable features. This is in fact the case we have discussed in section 4.3.7, where the argument in the oblique shape in Spec, $\nu_1 P$  has been argued to be invisible for the reflexive clitic and consequently for  $\Theta$ -identification<sup>41</sup>.

 $<sup>^{40}</sup>$ In this sense it might simply turn out that the traditional category labels are in fact insufficient, if it turns out that more important distinctions cut between the traditional paradigms.

 $<sup>^{41}</sup>$ The reasoning rests on the assumption that a Polish by-phrase in agreeing Passive corresponds to Instrumental case in terms of the position in verbal  $f_{seq}$  (and hence also

Moving on to HAVE, on the other hand, its lexical entry must include the information to the effect that it takes +N complements<sup>42</sup>. Although it is difficult to see exactly where the boundary between the nominal and the adjectival region lies (i.e. the only evidence we have is to the effect that  $\nu_3 P$  is still in the nominal region, as Impersonal -NO/TO is nominal and involves ES insertion on top of  $\nu_3 P$ ), it seems to be the null hypothesis to assume that it is the end of the thematic domain, i.e. initP that corresponds to the upper boundary of nouns.

Finally, the issue that is pending relates to the nominalization in -nie/cie. The reader will recall that in section 4.3.8 I argued that the two points at which ES can be inserted and result in a nominalization are: on top of  $\nu_1$ (the nominalization with a by-phrase), and on top of  $\nu_2$  (the nominalization with a Genitive Agent). One question that arises is why Event Separator merging on top of  $\nu_1$  yields an adjective in one case (i.e. a verbal participle), but a nominal in the other case (i.e. the nominalization with the by-phrase). This, I suggest, is due to the fact that 'abortion' of verbal  $f_{seq}$  in the nominalization in -nie/cie is radical in the sense that the decomposable suffix -i-e is the spell out of some higher projections in the nominal  $f_{seq}$ . Th identity of these projections needs to be left for future research, but whatever their identity is, it is clear that their presence is necessary for the derivation to stop. Therefore, no further Auxiliaries are necessary. I remind the reader that the nominalization with pro<sub>arb</sub> cannot in fact involve ES merged on top of  $\nu_3$ , i.e. equivalent to perfect tense construction in other languages due to the fact that Perfect Tense constructions retain ACC Case, as opposed to the nominalization with pro<sub>arb</sub>. Incidentally, this fact seems to suggest that the level relevant for ACC Case on the object is  $\nu_3$ . As far as I can see, however, there is nothing in general prohibiting a nominalization at this high a level. Thus, one expects to see nominalizations retaining ACC Case

Migdalski (2006:148)

On the other hand, the lack of equivalent construction in modern Romance or Germanic seems to exclude this more free version of categorial selection.

feature specification), as e.g. Russian by-phrase is a noun in Instrumental case.

<sup>&</sup>lt;sup>42</sup>The question is, however, if that automatically implies that complements in the region which is a subset of nominal complements (i.e. the adjectival region) might also function as complements of HAVE. This seems to be confirmed by the existence of the construction which Migdalski (2006) refers to as 'stative perfect' exemplified in (ia) for Latin and (ib) for Polish, where the participle is adjectival in the sense that it agrees in Gender and Number with the object.

<sup>(</sup>i) a. Habemus oppidum obsessum.  $\begin{array}{ccc} \text{have}_{1pl} & \text{town}_{ACC.m.sg} \text{ besieged}_{ACC.m.sg} \\ \text{`We have a town besieged.'} \end{array}$ 

b. Mam ciasto u-piecz-on-e. have  $_{1sg.prs}$  cake  $_{ACC.sg.n}$  pref-bake.TH-ES-sg.n 'I have a cake baked.'

in other languages. The lack of such a nominalization in Polish might stem from the lexical specification of the nominal suffix -i-e-.

Let me now recapitulate the results of this section with respect to the three questions posed at the beginning. The ES in Polish is inserted in such a way that the highest position which the external argument can occupy is in Spec, $\nu_3$ P. This corresponds, however, to such a deficient nominal functional sequence that Polish does not have a spell out for this particular element. Therefore the covert  $pro_{arb}$  occurs. The construction with the same level of insertion in other languages, i.e. compound Tense, is not available in Polish. This is due to the fact that in this construction the external argument is merged outside the complement of ES, i.e. in Spec,initP and for this reason Auxiliary HAVE needs to occur. Since Polish lacks Auxiliary HAVE, the only option is to 'keep' the external argument trapped inside the complement of ES in order to enable the switch to covert BE. Finally, I have put forward speculations related to the way the typology of constructions employing the -n/t- morphology fits into a new way of conceiving of lexical categories Adjective, Noun, and Verb.

# Chapter 5

# Out-of-control as init-less Causative

# 5.1 Preliminaries<sup>1</sup>

The present chapter focuses on the existence of certain constructions across languages, signalled by overt verbal morphology, which do not result in a change in the valency of the predicate. Yet, they influence the interpretation of the Subject in the sense that either the Subject<sup>2</sup> is deprived of agency (the accidental incarnation of the relevant constructions) or it is interpreted as a holder of state in the sense of dispositional ability (the abilitative incarnation). Following the tradition established by work on Salishan languages (e.g. Davis and Demirdache (2000)), I will refer to both of the uses as 'out-ofcontrol' (henceforth, OOC). The main claim presented in this chapter builds on the decomposition of the thematic domain initiated by the separation of Voice and Cause component in Pylkkänen (2002). To wit, the projection introducing a Causing event is made independent from the projection introducing a Causer/Agent. The proposal will consist of the following claims: (i) in the light verb system there is a need for the presence of the light verb which hosts Dative external arguments, and (ii) OOC morphology is a spell out of init-less subevental structure located on top of Dative-hosting projection. In other words, OOC involves a Causative without Initiator. I discuss a novel set of facts, which will be argued to be comparable to socalled Faire Infinitive varieties of Causatives in other languages (cf. Kayne (1975), Rouveret and Vergnaud (1980), Aissen (1979), Guasti (1993), Guasti (1996), Alsina (1996), among many others). In section 5.2 I present evidence from St'át'imcets (Lillooet Salish), Malagasy, Tagalog, North Sámi, and Hindi/Urdu. Then I argue that a similar construction is attested in

 $<sup>^{1}</sup>$ The material in the present chapter is a substantially revised and extended version of Jabłońska (2003).

<sup>&</sup>lt;sup>2</sup>At this stage I refer to surface Subjects, i.e. also deep objects of unaccusative verbs.

Polish (section 5.3). I take up so-called Dative Reflexive Construction as a case study in section 5.4. The analysis of OOC presented there conceives of the relevant construction as another example where the presence of intermediate Subject position is detectable due to the lack of initP on top of a higher Causative, where the external argument would have normally moved. The analogy with Causatives will be based on identical morphological shape (i.e. Case), restrictions on semantic interpretation (i.e. animacy), as well as the same degree of syntactic 'subjecthood' of the Causee in FI Causative and the external argument in Dative Reflexive Construction (cf. also the discussion of 'degrees of externality' in section 1.4, and particularly chapter 4). Set against the background of other constructions involving the reflexive marker, including Medio-Passive, Middle, and Impersonal Reflexive Construction, OOC will turn out to be only one of a range of constructions were a particular lexicalization scenario forces the external argument to be frozen in a low position in a verbal functional sequence. Finally, I will attempt to present a generalized way of deriving semantic and morphological restrictions from the way a DP is disassembled during a derivation.

# 5.2 Cross-linguistic evidence for OOC

Davis and Demirdache (2000) note the existence of a special discontinuous morpheme ka...a in St'át'imcets (Lillooet Salish). The effect of this affix is, intuitively speaking, suppressing the control of the agent over the predicate denoted by the verb. This OOC affix yields two different readings: (i) when applied to predicates describing atelic (unbounded) events, it yields ability reading (x is able to cause y to become V-ed); when applied to predicates describing telic (bounded) events, it yields accidental/spontaneous reading.

```
(1)
           sek-cál
                                                                St'át'imcets
      a.
           hit-ACT
           'to hit (people/things) with a stick or a whip'
                  sék- cal-
           OOC- hit- ACT- OOC
           'to be able to hit (people/things) with a stick or a whip'
                                    (Davis and Demirdache, 2000:114,(24))
(2)
           sek- s
      a.
           hit- CAU
           'to hit with a stick or a whip'
           ka-
                  sek-s-
           OOC- hit- CAU- OOC
           'to accidentally hit with a stick or a whip'
                                    (Davis and Demirdache, 2000:114,(26))
```

Note that in (1) ACT(ive) is involved - a morpheme deriving atelic unergatives in Lillooet Salish. On the other hand, the presence of the transitivizer CAUSE in (2) derives a telic verb and hence the interpretation of OOC is accidental. Note, however, that irrespective of the presence of either the transitivizer or the intransitivizer, certain contexts will favor one or the other reading. Thus, under the scope of negation or progressive, the interpretation will be abilitative, as opposed to accidental, as shown in (3) and  $(4)^3$ . Thus, the negation or the progressive operator seems to overwrite the telicity effect of the transitivizer CAU:

- (3) **cw7aoz** kw-s **ka**-sék-s-as-a [ti=sq'úm'ts=a] **NEG** DET-NOM **OOC**-hit-CAU-ERG-**OOC** DET=ball=EXIS

  [ti=sqáycw=a]

  DET=man=EXIS

  'The man is not able to hit the ball.'
- (4) wa7 ka-sék'w-s-as-a [ti=nk'wanústen=a]
  IMPF OOC-shatter-CAU-3ERG-OOC DET=window=EXIS
  [ti=sqáycw=a]
  DET=man-EXIS
  'The man is able to break the window.'

(Davis and Demirdache, 2000:115,(27))

Davis and Demirdache (2000) also observe that in case the Causer is not an Agent, but some event (in other words, in case the subject is inanimate), OOC morphology is illicit, as illustrated in (5):

(5) (\*ka-) sék'w -s -as (\*-a) [ti=nk'wanústen=a]
OOC shatter -CAU -ERG -OOC DET=window=EXIST
[ti=qvl-alh-tmícw=a]
DET=bad-CON-land=EXIS
'The storm accidentally broke the window.'

(Davis and Demirdache, 2000:117,(31b))

Under the intuitive formulation of the effects of OOC unacceptability of (5) is not surprising: OOC cannot possibly suppress the control of the causing event since events don't have control to begin with. Yet, this explanation does not seem to suffice in the case of unaccusatives, with which OOC morphology is perfectly fine and most of the time produces 'all-of-a-sudden' reading, as in (6):

<sup>&</sup>lt;sup>3</sup>Cf. section 5.4.5 for more on that issue.

- 318
- (6) a. ka-t'ál-a OOC-stop-OOC 'to stop suddenly'
  - b. ka-lwés-aOOC-break-OOC'to break (shatter) accidentally, suddenly'
  - c. ka-ném'-a OOC-blind-OOC

'to go blind suddenly' (Davis and Demirdache, 2000:115,(28))

The fact that OOC attaches to unaccusatives is taken by Davis and Demirdache as an argument in favor of underlying causative nature of unaccusatives. Under the analysis presented here, where the suppression of control is only a derived pragmatic effect, the argument does not hold anymore (cf. furthermore Davis (2000) for the claim that Salish nonderived monovalent verbs are truly unaccusative). Thus, in view of the possibility of OOC morphology to attach to unaccusatives, it seems that the intuitive explanation in terms of 'suppression of control' is not satisfactory.

One more thing about OOC in Lillooet Salish that needs to be stressed is the fact that it attaches relatively high: a is an enclitic, so it attaches on top of any (in)transitivizer (Henry Davis, p.c.).

Lillooet Salish is not the only language that displays the relevant construction. Similar facts are reported by Travis (Travis (2003), Travis (2000a)). Travis (building on Phillips (2000)) shows that there is a set of prefixes in Malagasy<sup>4</sup> which have a complex effect of adding telicity to otherwise default atelic predicates, as well as (optional) adding an external argument, which on Travis's account is always non-volitional. The set of prefixes is presented in Table 5.1. In the present discussion I am preoccupied with the telic prefixes:

Aspect	Transitive	Unaccusative	Passive
atelic	m- $an$	m- $i$	-ina
telic	m- $aha$	tafa	voa-

Table 5.1: Malagasy prefixes

The telic prefix maha- is further decomposed into an Actor Topic (m-), stative marker (-a-), and an aspectual telicity marker (-ha-).

When added to an adjectival root, the telic prefix adds an argument which can be both animate and inanimate. Yet, it cannot be interpreted volitionally.

 $<sup>^4\</sup>mathrm{A}$  prefix with the same effects is found also in Tagalog.

- (7) a. Tsara ny trano. Malagasy beautiful the house 'The house is beautiful.'
  - b. M-a-ha-tsara ny trano ny voninkano.
    pres.a.ha.beautiful the house the flowers
    'The flowers make the house beautiful.' (Travis, 2000a:(48))

The fact that it can't receive a volitional interpretation is shown in (8), where an agent-oriented adverbial is excluded:

(8) (\*Nanao fanahiniana) nahahitsaka ny biby kely Rabe. made spirit pst.a.ha.footprint the animal small Rabe intended: 'Rabe deliberately stepped on the insect.'(Travis, 2000a:(50b))

When added to a root with a transitive counterpart, like  $\sqrt{vory}$  ('gather/meet'), the prefix might add an argument, though it does not seem to be obligatory, in addition to the usual telicity effect:

- (9) a. Tafavory ny olona.

  tafa.meet the people

  'The people met.' (telic)
  - b. Tafavory ny mpampianatra ny ankizy. tafa.meet.GEN the teacher the children 'The teacher was able to gather the children.'

(Travis, 2003:(19-20))

What is most interesting from our perspective is the additional semantic effect of ability reading. Since Travis aims at collapsing the two cases (i.e. telic deadjectival verbs, as well as telic deverbal ones), she claims that the effect is nonvolitionality of the external argument (labelled Cause). Yet, it is not clear to me how any argument in the ability reading can be nonvolitional in the first place. In other words, if volitionality is defined as the presence of an intention to perform a certain action, then it seems the argument that is able to perform an action must also have an intention to do it. This is especially conspicuous in the cases where OOC construction gets an English paraphrase 'manage to'.

Now the discussion must switch to Tagalog since Tagalog provides an interesting clue to the effect that the external argument with telic predicates is introduced by the aspectual part of the telic prefix, i.e. -ka- (Tagalog's equivalent of Malagasy -ha-)

Travis argues that Tagalog drops certain pieces of valency changing morphology depending on which argument serves as a Subject, or is fronted, to remain uncommitted to any analysis of Voice in Austronesian. Thus, the claim is that the morpheme can surface overtly in case the argument has

moved from its specifier. If the argument stays in situ, the relevant morpheme deletes - an effect taken to be due to a Doubly Filled Voice Filter (cf. Sportiche (1996)).

(10) a. [ DP [
$$_{\nu P}$$
 [ $_{\nu'}$  -a- [ $_{AspP}$  t $_{DP}$  [ $_{Asp'}$  -ha- [ $_{VP}$  ...]]]]]]] b. [ $_{\nu P}$  [ $_{\nu'}$  -a- [ $_{AspP}$  DP [ $_{Asp'}$   $\varnothing$  [ $_{VP}$  ...]]]]]

Now, when a telic prefix maka- attaches to a verb, the aspectual part of it deletes in the Passive (i.e. when the Theme is fronted).

# (11) Tagalog

- a. Nakagamit siya ng manggang hilaw. n-a-ka- $\sqrt{gamit}$  pst.a.ka.use 3NOM NG mango green 'He was able/happened to use a green mango.'
- b. Nagamit niya ang manggang hilaw. n-a- $\frac{ka}{\sqrt{gamit}}$  pst.a.use 3GEN NOM mango green 'He was able/happened to use a green mango.'

(Schachter and Otanes, 1972:330)

Note that Tagalog also shows the relevant semantic effects, i.e. ability/accidental reading of the Subject, with the difference between the two being even more obliterated (cf. section 5.4.5). In the Passive in (11b), the morpheme -ka- is not realized overtly. This is taken by Travis as evidence that an Aspectual projection located between  $\nu$ P and VP can introduce non-volitional arguments. However, it is not clear that the fundamental assumption in the analysis to the effect that the absence of a morpheme is triggered by the argument staying in the Specifier of the relevant projection, is really justified. This is due to the fact that in cases where some nominal other than an Agent/Cause or Patient/Theme is fronted (i.e. in Travis' Reason/Other Focus or so-called Circumstantial Voice), the morpheme -ka- responsible for the introduction of the external argument is still present, as shown in  $(12)^5$ :

	root	${f gloss}$	Experiencer	Object	Reason/other
(12)			Focus	Focus	Focus
(12)	kita	see	MA- $KA$ - $kita$	MA- $kita$	I- <b>KA</b> -kita
	alala	$_{ m remember}$	$MA ext{-}KA ext{-}alala$	MA - $alala$	I- <b>KA</b> -alala

adapted from Travis (2003:(26))

Although the Object Focus is as predicted by Travis' analysis, i.e. the aspectual-causative morpheme disappears since it is the Object that is fronted, the problematic area is in boldface. Since only one element can be fronted,

<sup>&</sup>lt;sup>5</sup>The reader is also referred to e.g. Rackowski (2002), where the fronting of Beneficiary, which does not give rise to -ka- deletion, is taken as evidence that Agent/Cause and Beneficiary form a natural class.

by hypothesis, the structure in Reason/Other Focus must involve the external argument occupying an  $in\ situ$  position (i.e. Spec,AspP under Travis' assumptions). If that is so, however, the morphological exponent of Asp, i.e. -ha-, should be deleted in order to avoid Doubly Filled Voice Filter violation. This, however, is not the case. If, in turn, the relation between the presence of the morpheme -ha- and the structural position of the external argument remains mysterious, there is in fact no reason to claim that it is -ha- that introduces an external argument in either deadjectival (7b) or causativized unaccusative (9b). More specifically, it could just as well be -a- that is doing the job of argument introduction (or some other, morphologically covert element, for that matter).

Another issue is whether (7b) and (9b) should really be subject to a unified analysis. The reader will observe that firstly, they involve different morphology in Malagasy (m-a-ha in deadjectival (7b), and tafa in (9b)), and secondly, their Subjects differ with respect to interpretation: whereas the Subject of (7b) is interpreted as nonvolitional Cause (i.e. bringing about the change without any sentient participation), the Subject of (9b) is interpreted as the usual Subjects of Modals plus the entailment of the change taking place (i.e. it was possible for X to V & X V-ed). As far as I can see, it is an equally plausible theoretical possibility that the two Subjects are introduced by two different projections (e.g. the inanimate Subject in (7b) by the state-denoting projection headed by -a-, and the Modal Subject in (9b) by the projection headed by -ha-). In what follows I will only be preoccupied with the case in (9b), and will leave the purely causativizing cases of deadjectival verbs in (7b) aside<sup>6</sup>.

Finally, a slightly different issue that arises is the identity of the morpheme preceding -ha/ka-, i.e. the stative marker -a. This is reminiscent of the Salish discontinuous nature of OOC morphology. For Travis -a- is located in  $\nu$ . Yet, if the external arguments are introduced (or 'placed') lower than the causing event (since Travis' AspP hosting the telicity marker is located between  $\nu$  and V), it is not clear how compositional semantics will relate these arguments to the upper event.

It could not possibly be my aim to provide an account of Malagasy/Tagalog Out of Control. I treat the Austronesian data here purely as a substantiation of the claim that OOC is present in many unrelated languages. Yet, it is hoped that the account of the relevant construction in Polish will shed light on the Austronesian OOC as well. Austronesian data is also important in view of the aspectual parallels to Polish *u*-prefixation, mentioned in section 5.4.5, since both of the relevant constructions seem to also contribute to the aspectual property of the whole predicate. Actually, as in Lillooet Salish, so

<sup>&</sup>lt;sup>6</sup>Although it is not explicitly stated in any of Travis' work, I will assume that the relevant Malagasy/Tagalog construction induces animacy requirement on the Subject of the relevant verbs - see below for ramifications.

Malagasy	Slavic	gloss
maha-zo	u-chwycić (Pl)	'to understand, seize'
maha- $lala$	u-znat' (Ru)	'to (get to) know'
maha- $tsiahy$	u-czuć (Pl)	'to (get to) feel'
maha- $tsiaro$	$u ext{-}stysze\acute{c}( ext{Pl})/u ext{-}sty\check{s}at'( ext{Ru})$	'to (get to) perceive, hear'
maha- $hita$	u-widet' (Ru)	'to (get to) see'

Table 5.2: inherent OOC verbs

in Austronesian, there are verbs which are 'happiest' with OOC morphology. In Malagasy, they most often create achievements out of statives. Now, in view of the considerable number of prefixes in Slavic, it is hardly an accident that five out of seven Malagasy inherent maha- verbs provided by Travis have u-prefixed equivalents in either Russian or Polish<sup>7</sup>:

Turning now to a different language - Hindi/Urdu, Butt (1997) observes the existence of so-called 'ability passives'. The construction displays an overt passive auxiliary jaa ('go') combined with the perfective morphology on the main verb, and the argument in INSTR case.

#### (13) Urdu

a. naadyaa=se gaarii cala-yii jaa-tii
Nadya<sub>sg.f</sub>=INSTR car<sub>sg.f.NOM</sub> drive-perf.sg.f go-imperf.sg.f
(hai)
(be.pres.sg)
'Nadya has the ability to drive a car.'
'A car gets driven by Nadya.' (Butt, 1997:(4))

Apart from the usual Passive reading, (13) also has the surprising ability reading, where the Instrumental argument is interpreted as a Subject of the modal predicate.

A similar dispositional reading arises with certain complex predicates (in Butt's terminology), most productively with the light verb le ('take').

(14) naadyaa gaarii **calaa le-tii** (hai) Nadya
$$_{sg.f.NOM}$$
 car $_{sg.f.NOM}$  drive take-imperf.sg.f be $_{pres.sg}$  'Nadya does/will drive a car.' (Butt, 1997:(3))

There are several properties of the constructions in (13) and (14) observed by Butt that distinguish them from the regular modal sak, as well as from regular Passives:

1. The construction asserts that the subject actually chooses (and has been observed) to exercise the ability to perform a certain action. This

<sup>&</sup>lt;sup>7</sup>Malagasy data from Travis (2004).

is different from the modal verb sak. Thus, an attempt to override this assertion in (15) results in ungrammaticality:

- (15) ???naadyaa gaarii calaa le-tii hai,
  Nadya<sub>sg.f.NOM</sub> car<sub>sg.f.NOM</sub> drive take-imperf.sg.f be<sub>pres.sg</sub>,
  magar calaa-tii hii nahii.
  but drive-imperf.sg.f emph not
  'Nadya does/will drive a car, but doesn't.' (Butt, 1997:(22))
- 2. The *le* construction appears to presuppose that certain conditions are met (as opposed to the standard modal).
  - (16) agar raastaa pakaa ho, naadyaa if  $\operatorname{road}_{sg.m.NOM}$  baked $_{sg.m}$  be  $\operatorname{Nadya}_{sg.f.NOM}$  saikal calaa le-gii  $\operatorname{cycle}_{sg.f.NOM}$  drive take-fut.sg.f 'If the road is good, Nadya will ride a bicycle.'
  - (17) ??agar raastaa pakka ho, naadyaa if  $\operatorname{road}_{sg.m.NOM}$  baked $_{sg.m}$  be  $\operatorname{Nadya}_{sg.f.NOM}$  saikal calaa sake-gii  $\operatorname{cycle}_{sg.f.NOM}$  drive can-fut.sg.fem 'If the road is good Nadya can ride a bicycle.'

(Butt, 1997:(23-4))

- 3. The Instrumental DP is not optional in the ability passive (the reading drops out along with the DP).
  - (18) cor pakr-aa jaa-taa thief<sub>sg.m.NOM</sub> catch-perf.sg.m go-imperf.sg.m
    '\*(The police) have the ability to catch a/the thief.'
    'The thief was caught.' (Butt, 1997:(35b))
- 4. The instrumental DP can control a participial in the ability passive, as opposed to the demoted agent in the real passive:
  - (19) pulis=se cor [dukaan=tak baag kar] police-INSTR thief $_{sg.m.NOM}$  store $_{sg.m}$ =to run having pakr-aa ga-yaa catch-perf.sg.m go-perf.sg.m

    'The police, having run to the store, were able to catch the thief.' (Butt, 1997:(36))

Property 1 is important from our perspective, since it is reminiscent of the factive entailment in the Polish Dative reflexive construction (see section 5.3). Property 2 indicates that the modal reading is in a certain sense circumstance-oriented, exactly as is the case for Polish Dative reflexive construction. The dispositional reading with le, on the other hand, will be the one that also surfaces in Polish u-prefixed atelic verbs (cf. Butt's 'absolute (dis-)ability).

Properties 3 and 4 indicate that the Instrumental DP is a subject in an important sense - a property that makes it quite similar to the covert argument in Polish Impersonal Passive and Genitive argument in -nie/cie nominalization.<sup>8</sup>

Butt also relates the semantic effect of 'unexpectedness' of dispositional construction to so-called *involitives* in Sinhala (cf. Inman (1993)).

(20) mahatun atin mee kææmə hondətə hædenəwa. Sinhala Mahtun ERG this food well make.INV.PRES 'Mahtun makes this food well (unexpectedly).'
'Mahtun happens to make this food well.' (Butt, 1997:(42))

The 'unexpectedness' effect comes very close to the 'all-of-a-sudden/accidental' reading that we saw arises when a telic (unaccusative) verb is embedded under OOC in Lillooet Salish.

Finally, the language that provides the first clue that the OOC should also be associated with Causative morphology is North Sámi. As observed by Nickel (1990), double causatives can sometimes yield either an accidental reading (as in (21)), or an -able type of adjective (in (22)), instead of increasing the valency of the verb:

- (21) North Sámi
  - a. atni-t 'use' ani-h-ahtt-it 'accidentally cause to be used'
  - b. báhči-t 'shoot' báži-h-ahtt-it 'accidentally cause to be shot'
  - c. čierru-t 'cry' čieru-h-ahtt-it 'accidentally cause to cry'
- (22) a. atni-t 'use' ani-h-ahtt-i 'usable'
  - b. borra 'eat' bora-h-ahtt-i 'edible'

<sup>&</sup>lt;sup>8</sup>That result seems to suggest, in the context of the analysis proposed in this chapter, that if the Instrumental DP in Urdu 'ability' Passive is to be equated with Romance Dative Causee or Polish Dative argument in DRF, then the particular morphological spell-out of cases needs to be language-specific. For a similar conclusion cf. also Mahajan (2004). On the other hand, something has to be said about two arguments in the same morphological case (i.e. INSTR) displaying different degrees of syntactic activity (i.e. less active INSTR in the regular passive, and more active INSTR in 'ability passive' in Hindi/Urdu). That seems to suggest that the lexical specification of Hindi/Urdu INSTR marker is different from the specification in languages that differentiate Case for the Causee in FI Causative on the one hand, and the Agent in the passive on the other - a necessity really in view of the cross-linguistic variation in the number of morphological cases.

c. juhka-t 'drink' juga-h-ahtt-i 'potable'

(Nickel, 1990:231)

Finally, I would also like to mention Finnish desiderative constructions (in (23)) at this point since they overtly employ a Causative marker and display striking similarity to Russian desiderative Dative constructions (in (24)). The latter, on the other hand, is identical in morphosyntactic shape to an OOC Polish Dative Reflexive Construction (DRC) (in (25)):

- (23) Maija-a laula-tta-a. Finnish
  Maija-PART sing-CAUS-3sg
  'Maija feels like singing.' (Pylkkänen, 2002:(168))
- (24) Mne ne čitaet-sja. Russian  $me_{DAT}$  neg read-refl 'I don't feel like reading.'
- (25) Źle mi się spało. Polish badly  $me_{DAT}$  refl sleep $_{3sg.neut.pst}$  'I couldn't sleep.'

Since the Finnish desiderative constructions have already been argued convincingly by Pylkkänen (2002) to involve Voiceless Causative, I take it as suggestive evidence that a similar underlying structure can be present in Polish (25), modulo the desiderative component. Yet, since Polish does not have a morpheme specialized to lexicalize a Causative, the structure will be more disguised than in Finnish.

# 5.3 Dative Reflexive Construction

Polish has a construction which Ackerman (1995) calls inversion construction following the terminology of Relational Grammar. I will refer to it as the Dative Reflexive Construction (henceforth, DRC). This construction has several characteristics, as noted in Dziwirek (1991):

- (i) the verb occurs in the 3rd sg neuter form (which I assume is the nonagreeing default form);
- (ii) a reflexive marker *się* is present;
- (iii) the Subject is in Dative Case and is construed as deprived of the properties of the instigator of the event (to remain at the very impressionistic level of formulation)
- (iv) a (manner) adverbial is usually present.

I take the minimal agentivity of the Dative nominal to be the starting point for associating this construction with some OOC morphology of the Salish type. Consider two examples:

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- (26)Marek czytał książkę. a.  $Marek_{NOM} read_{3sq.m.pst} book_{ACC}$ 'Marek was reading a book.'
  - Markowi dobrze czytało sie ksiażke.  $Marek_{DAT}$  well  $read_{3sg.neut.pst}$  refl book<sub>ACC</sub> 'It was nice for Marek to read the book.'
  - wczoraj spałam. badly yesterday slept $_{1.sg.f.pst}$ 'I slept badly yesterday.
  - d. Źle  $_{
    m mi}$ się wczoraj spało. badly  $\text{me}_{DAT}$  refl yesterday  $\text{slept}_{3.sg.neut.pst}$ 'I slept badly/ couldn't sleep yesterday.'

The gloss in (26d) indicates that the examples have a modal component, which is hardly translatable into English. Namely, they are interpreted, I would like to argue, as involving some unspecified event which causes (i.e. enables or disenables) some other event (in this case activity of reading or sleeping). Hence, the argument that corresponds to the Nominative Subject in an active run-of-the-mill sentence is construed as not initiating the event of its own accord. Instead, those constructions are 'circumstance-oriented' in the sense that we might recall from Butt's discussion of Hindi/Urdu le construction (cf. (16)).

Both Dziwirek (ib.) and Ackerman (ib.) assume that the inversion construction is quite productive, it can apply to both transitive and intransitive verbs. With transitive verbs the object retains ACC Case. Contra Dziwirek, however, I do not think the construction is possible with perfective verbs. This is shown in (27):

- a. \*Markowi prze-czytało $^P$ się tę książkę dobrze. (27) $Marek_{DAT}$  prze-read $_{3sg.neut.pst}$  refl this book
  - b. \*Wy-spało $^P$  mi się wczoraj dobrze. wy-sleep  $me_{DAT}$  refl yesterday well

Yet, there is a similar construction, where by 'similar' I mean displaying all the syntactic characteristics enumerated above, which however has the reverse restrictions - it can only apply to perfective verbs as below:

- \*(po)-wiedziało $^{P}$ . (28)a. Tak mi się jakoś thus  $me_{DAT}$  refl somehow po-know<sub>3sq.neut.pst</sub> 'I said (sth) accidentally'/'I happened to say (sth)'
  - Tak mi \*(prze)-czytało $^{P}$ . się jakoś thus  $me_{DAT}$  refl somehow prze-read<sub>3sq.neut.pst</sub> 'I read (sth) accidentally'/'I happened to read (sth)'

c. Tak mi się jakoś plu-nę-ło $^P$ . thus me $_{DAT}$  refl somehow spit-sem-3sg.neut.pst 'I spat accidentally'/ 'I happened to spit'

The productivity of this construction is not total and at present I don't understand all the restrictions. One of them, however, is a preference for object deletion, as shown by slight marginality of (29):

(29) ?Tak mi się jakoś prze-czytało tę książkę. thus me się somehow prze-read this book

From now on I will refer to both constructions with Dative argument as ability DRC and accidental DRC<sup>9</sup>.

Coming back to the accidental DRC and its similarities to Salish OOC data, this variety of DRC can also be freely used with unaccusatives. First I need to demonstrate that the predicates are unaccusative. Quite apart from the theory-internal evidence (i.e. the presence of Theme<sub>low</sub>), there are also tests like the lack of Impersonal Passive and ability to attach resultative participial morphology (in (30a) and (30b) respectively) that verify the relevant point. (31) illustrates the same unaccusative verbs in DRC.

- (30) a. \*Umar-t-o/ \*Upad-nię-t-o/ \*Poblad-nię-t-o die-ES-o/ fall-TH $_{inch}$ -ES-o/ get.pale-TH $_{inch}$ -ES-o
  - b. u-mar-ł-y krewny / u-pad-ł-y anioł /
    u-die-ES-masc.sg relative / u-fall-ES-masc.sg angel /
    po-blad-ł-e dziecko
    po-pale-ES-neut.sg child
    'a relative that died' / 'a fallen angel' / 'a child that got pale'
- (31) a. Umarło jej się.  $\operatorname{died}_{3rd-neut} \operatorname{her}_{DAT}$  refl. 'She happened to die.'
  - b. Upadło mi się.  $\operatorname{fall}_{3.neut} \operatorname{me}_{DAT}$  refl 'I happened to fall.'
  - c. Pobladło jej się. get-pale $_{3.neut}$   $her_{DAT}$  refl 'She happened to get pale.'

A further issue relates to the animacy requirement on the Dative argument. As with St'át'imcets OOC, so in the DRC, the sentences are ungrammatical with inanimate Dative arguments. The relevant feature is [animate], and not [human], since animals are quite acceptable in the DRC:

<sup>&</sup>lt;sup>9</sup>Russian also has ability DRC, and identically looking desiderative construction (cf. (24) in section 5.2). In neither of them, however, are transitive verbs allowed.

(32) Markowi/ Psu/ \*Książce dobrze się leżało na podłodze. Marek $_{DAT}/\deg_{DAT}/\log_{DAT}$  well refl lie $_{3sg.neut.pr}$  on floor 'It was nice and easy for Mark/ the dog/ \*the book to lie on the floor.'

There is one difference relating to the animacy of the argument between St'át'imcets OOC and Polish DRC. In Polish, the animacy requirement on the Dative holds also of the sole argument of unaccusatives.

- (33) a. \*Książce się upadło. book $_{DAT}$  refl fall $_{3sg.neut.pst}$  intended: 'The book accidentally fell.'
  - b. \*Butom się podrożało. shoes $_{DAT}$  refl get.expensive $_{3sg.neut.pst}$  intended: 'The shoes accidentally got more expensive.'

In Lillooet Salish, on the other hand, the animacy holds only of the external argument, it seems. (34) is an example of underived unaccusative verbs with inanimate DPs, which are fine embedded under OOC.

- (34) St'àt'imcet
  - a. Ka-t'ál-a sk'éxema, kent7ú ku szenk.'The wind stopped blowing, far around that circle.'
  - b. Ka-lhéxw-a ta=snéqwm=a.'The sun came out.' (Davis, in preparation:(36-7),chapter 25)

I take it to mean that in Polish even the argument of unaccusative verbs has to travel via the position inducing animacy (see below).

Finally, as is the case with all the constructions involving the reflexive clitic, DRC does not undergo passivization:

(35) \*Ta lina łatwo mi się była trzym-a-n-a. this line  $_{NOM}$  easy me $_{DAT}$  refl bepst.3sg.fem hold-TH-ES-3sg.fem

# 5.4 Analysis

Let me now summarize the properties of DRC. The point that bears on the issue and has been brought to my attention by Henry Davis (p.c.) is the fact that Central Salish OOC is expressed by means of morphology, which is (at least historically) reflexive. Table 5.3 synthesizes the important properties of Polish DRC.

property	
morphology	refl. clitic
productivity	considerable
case on subject	Dative
ACC on object	yes
passivization	no
reading with imperf	ability
reading with perf	accidental
semantic restrictions	only animate DAT

Table 5.3: DRC - summary of properties

### 5.4.1 Init-less Causative

It should have become clear by now that I would like to argue that a Causative head is involved in OOC structure. In neither of the cases of OOC, however, is the valency of the predicate increased. This seems to be a definitional property of Causatives on standard accounts and therefore problematic on initial examination. Yet, as has been argued in section 1.5, following the work of Pylkkänen (2002), I am not assuming that this is a necessary property of Causatives. In other words, certain Causatives in certain languages can introduce the Causing event, without a Causer. This, in fact, is the case with OOC.

The first piece of evidence to this effect has been provided by North Sámi in section 5.2, where we saw that the language transparently employed a Causative morpheme to yield OOC readings. Crucially, North Sámi causative morpheme is independent of Voice (i.e. initP under our terminology), as shown by the fact that it is retained in the Passive:<sup>10</sup>

Finnish desiderative constructions, also making use of the causative morpheme, bring further evidence, especially in comparison with Russian desiderative construction in (24). This is because Russian desiderative construction looks morphologically identical to OOC: the reflexive marker is obligatory and the Subject is in Dative case.

<sup>&</sup>lt;sup>10</sup>(36) most probably contains so-called 'inner' causative due to the fact that it is embedded under an agreeing Passive. On the other hand, the parallel that I will draw in the present chapter is between DRC and an 'outer' Causative of the *Faire Infinitive* variety. Yet, North Sámi uses the same morpheme to express both types of Causatives, and in the *lavish insertion* system this implies that they are in fact one and the same item. Hence, the null hypothesis is that if the 'inner' Causative does not necessarily spell out initP, neither does the 'outer' one.

Admittedly, it is not easy to find support for the existence of a higher Causative event. E.g. adverbial modification of the purported higher Causing event is not possible, as shown in (37):

(37) \*Szybko mi się czytało z namysłem. quickly  $me_{DAT}$  refl  $read_{pst.3neut}$  with thought intended: 'Something quickly made me read carefully.'

Yet, If the Causative involved in OOC is in fact functional, and if manner adverbials are related to particular positions in the functional sequence (as in Cinque (1999), where particular adverbs are situated in the Specifiers of respective functional projections), no manner adverbial reiteration is expected in a monoclausal structure as (37). Now, I enumerate the properties of DRC that point in the direction of a higher Causative analysis.

# Przypadkowo

I would like to argue, however, that the very possibility of the adverbial *przypadkowo* ('accidentally') testifies to the presence of a higher causative projection. Thus, it is not possible to use the adverb with true unaccusative predicates (i.e. low Theme stems), as illustrated in (38):<sup>12</sup>

(38) a. Maria (\*przypadkowo) pad- $\varnothing$ -ła/
Maria (\*accidentally) fall-TH<sub>inch</sub>-3sg.f.pst/
poblad- $\varnothing$ -ła/
umar-ła/
wypiękni-a-ła.
get.pale-TH<sub>inch</sub>-3sg.f.pst/ die-3sg.f.pst/ get.beautiful-TH<sub>ej</sub>-3sg.f.pst
Maria (\*accidentally) fell/ got pale/ died/ got beautiful.

On the other hand, with verbs involving high Themes (i.e. possessing the light verb layer), the adverbial under discussion is perfectly fine, as shown in (39):

(39) Maria przypadkowo u-puśc-i-ła tacę/
Maria accidentally pref-drop-i-pst.3sg.f tray<sub>ACC</sub>/
prze-czyt-a-ła napis.
pref-read-aj-pst.3sg.f note
'Maria accidentally dropped the tray/ read the note.'

<sup>&</sup>lt;sup>11</sup>Marušič and Žaucer (2005) provide examples of desideratives in Slovenian with two temporal adverbials. The equivalents in Bulgarian and Russian are systematically rejected by the speakers of respective languages that I consulted.

<sup>&</sup>lt;sup>12</sup>As pointed out by Tarald Taraldsen, *accidentally* can also be pragmatically controlled, e.g. *The stone accidentally broke the window* can be utterred felicitously in a situation where it was some higher Causer's intention to direct the stone otherwise. This kind of coercion is, however, excluded with human Subjects and predicates of the type 'get pale'. Therefore, it seems to me that the contrast is real.

The conclusion seems to be that the adverbial przypadkowo can only attach on top of a  $\nu P^{13}$ , but not on top of VP. In that case, we expect the adverbial under discussion to be possible in OOC context with unaccusative verb only in case if OOC actually involves a hidden light verb. This is in fact confirmed:

- (40) a. Tak mi się jakoś przypadkowo upadło. thus  $me_{DAT}$  refl somehow accidentally  $fell_{pst.3sg.neut.pst}$  'I accidentally fell.'
  - b. Przypadkowo mu się zmarło. accidentally  $\lim_{DAT}$  refl die $_{pst.3sg.neut.pst}$  'He accidentally died.'
  - c. Przypadkowo jej się wypiękniało. accidentally her<sub>DAT</sub> refl get.beautiful<sub>pst.3neut.pst</sub> 'She accidentally got beautiful.'

Further properties that OOC shares with the so-called Faire Infinitive (henceforth, FI) Causative are the following.

## Animacy restriction on Causee/Agent

It has been observed in the literature that the Dative Causee in FI Causative must be animate.

(41) Gianni ha fatto rompere la finestra \*al ramo/a Maria. 'John got \*the branch/ Maria to break the window.'

(Folli and Harley, 2002:20b)

Although rompere ('break') can take both animate and inanimate Subjects, only the former are grammatical embedded under the Causative. The same restriction holds of the Dative Agent in both the ability and the accidental instantiation of the DRC in Polish, as shown in (42) respectively.

- (42) a. Markowi/ Psu/ \*Książce dobrze się leżało na podłodze. Marek $_{DAT}/\deg_{DAT}/\deg_{DAT}$  well refl lie $_{3sg.neut.pst}$  on floor 'It was nice and easy for Mark/ the dog/ \*the book to lie on the floor.'
  - b. Nagle spadło się jej/ psu/ \*wózkowi ze suddenly fall $_{3sg.neut.pst}$  refl she $_{DAT}/$  dog $_{DAT}/$  \*pram $_{DAT}$  from schodów. stairs

'Suddenly she/ the dog/ \*the pram accidentally fell from the

<sup>&</sup>lt;sup>13</sup>This must be a necessary, but not a sufficient condition, since anticausatives with *przypadkowo* sound quite marginal: ?? *Drzewo przypadkowo złamało się* ('The tree accidentally broke') in spite of the presence of the light verb (cf. section 3.1 for the relevant analysis). It might be that it is also the content of the light verb that matters for *przypadkowo*, i.e. agentive vs stative light verb.

stairs.'

#### Dative case

This point is maybe not as self-explanatory as might be usually thought: both the Causee in Italian FI in (41) as well as the Agent in the Polish DRC are encoded in what is traditionally referred to as 'Dative' case: in Italian it is a Preposition-like marker a, whereas in Polish it is a suffixal ending that varies depending on the declension class. That fact alone, however, does not warrant any conclusion with respect to a common analysis of the two since what is called case X in one language will not necessarily correspond to the same structure in another language (cf. also fn 8 in section 5.2). Since I assume that Case markers, both prepositional as well as suffixal, are spellouts of certain subsequences of the nominal functional sequence (cf. also the discussion surrounding (108) in section 1.7), it follows that due to a different number of morphological cases in different languages, the particular sizes of subsequences must differ. Under this set of assumptions, what is called 'DATIVE' in various languages would normally involve some overlap in the lexical specification, but not necessarily fully identical lexical entries. Therefore, it is only a syntactic activity of the 'DATIVE' argument in both of the relevant constructions that will tell us whether the two are 'Subjects' to exactly the same degree. This, in turn, will translate into an identical syntactic position, assuming that 'Subjects' acquire their subject properties gradually by moving through higher and higher projections in the verbal functional sequence (cf. also Williams (2003) for the same conclusion in a very different set of assumptions). Having said this, I turn to subject properties of the Dative argument.

### Anaphor binding

Both the Causee in Romance FI Causatives, as well as the Dative argument in DRC are able to serve as antecedents for the possessive reflexive  $sw\acute{o}j$  in Polish and propria in Italian. I illustrate the fact in (43).

- (43) a. Ani<sub>i</sub> dobrze się spało w swoim<sub>i</sub> pokoju. Ania<sub>DAT</sub> well refl sleep<sub>3sg.neut.pst</sub> in refl-poss room 'It was nice for Maria to sleep in her room.'
  - b.  $Gli_i$  fecero fare i compiti nella propria $_i$  stanza.  $him_{DAT}$  made do the homework in the own room 'They made him do the homework in his room.'

Furthermore, the Dative argument in Polish DRC is able to control into a participial clause, whether present or past participle, as shown in (44):

(44)Wypi-wszy lekarstwo, zasnęło się bez drink-pst.prt medicine fall.asleep $_{3sq.neut.pst}$  him $_{DAT}$  refl without problemu. problem 'Having drunk the medicine, he was able/happened to fall asleep

without any problem.

Trudno rozmawiało mu się przez komórkę, prowadz-ąc difficult talk<sub>3sq.neut.pst</sub> him<sub>DAT</sub> refl through mobile, drive-pr.prt samochód.

car

'It was difficult for him to talk on the mobile while driving a car.

This stands in contrast to control out of a by-phrase that has been discussed in section 4.3.6 and the relevant examples are repeated in (45) for the sake of convenience:

a. \*Kamienie były (45)przez żołnierzy, rzuc-a-n-e stones<sub>NOM</sub> be<sub>pst.3non.vir</sub> throw-TH-ES-non.vir by soldiers próbuj-ąc wymusić odwrót. try-pr.prt enforce $_{inf}$  withdrawal $_{ACC}$ intended: 'Stones were thrown, trying to enforce withdrawal.'

> b. \*Wy-pi-wszy herbatę, książka bvła czyt-a-n-a pref-drink-p.prt tea<sub>ACC</sub> book<sub>NOM</sub> be<sub>nst.3sq.f</sub> read-TH-ES-sg.f przez Marka. bv Marek

intended: 'Having drunk the tea, the book was read by Marek.'

Similarly, in Italian, the Cause of FI Causative qualifies as a potential binder of the anaphor propria, along with the higher Causer/Agent. This is shown in (46).

Gli fecero fare i nella propria stanza. (46)compiti him made do the homework in the own room 'They made  $him_i$  do the homework in  $his_i$  own room.' 'They i made him do the homework in their, own room.

Furthermore, the subject of absolutive past participles can also be controlled by the Dative Causee in FI Causative, as shown in (47).

(47)La mamma mi ha fatto fare i compiti appena the mom me<sub>DAT</sub> has made do the homework immediately tornato a casa. returned to home 'Mom made me do the homework immediately after I have returned

home.'

Thus, the conclusion is twofold: firstly, the Dative argument in Polish DRC behaves analogously to the Dative Causee in Romance FI Causative with respect to anaphor binding and control of (certain) participial clauses. Secondly, the Dative argument in Polish DRC is syntactically more active than the argument embedded in a by-phrase<sup>14</sup>

## Availability of ACC Case

DRC stands out for one more reason: differently from the agreeing Periphrastic Passive and all instantiations of the nominalization (discussed in the previous chapter), ACC Case on the Object is preserved in Polish DRC.

(48) Dobrze mi się grało ten kawałek. well me refl play<sub>3sg.n.pst</sub> this piece<sub>ACC</sub> 'It was nice for me to play this piece.'

Although one can take different stands with respect to which verb assigns ACC Case to the Base Object in Romance FI Causative (cf. e.g. Folli and Harley (2002) for an account where ACC is assigned by the embedded verb contra most of the other accounts of FI Causative), the fact remains that ACC Case is also available in the FI construction. I illustrate the point with the clitic Base object:

(49) La faró riparare a Giovanni. it will.make repair to Giovanni 'I will make Giovanni repair it.'

Burzio (1986:256)

As a way of summary, the following properties indicating that FI Causative is in fact involved in the DRC have been invoked:

- 1. Causee in FI and 'Agent' in DRC restricted to phrases denoting animate entities;
- 2. Causee in FI and 'Agent' in DRC both encoded in Dative case;
- 3. both Causee in FI and 'Agent' in DRC display similar degree of syntactic 'subjecthood' (with anaphor binding as the relevant test)
- 4. in both FI and DRC ACC Case on the object is preserved;
- 5. both Causee in FI and 'Agent' in the DRC are interpreted as deprived of instigational properties, or acting under the pressure of higher

<sup>&</sup>lt;sup>14</sup>This conclusion is based on the control facts only. For Romance Causatives, although both Burzio (1986) (for Italian) and Kayne (1975) (for French) report binding out of an a-phrase vs impossibility to bind out of a da/par-phrase, it seems that all the speakers I consulted allowed for the latter binding as well. Quite possibly, then, we are dealing with some language change. Polish control judgements, however, are very clear.

forces/Agents.

6. in languages that encode Causatives by means of affixes, the same morpheme is used to encode OOC construction (i.e. North Sámi, and a related dispositional construction in Finnish).

# Degree of 'subjecthood'

Furthermore, I have concluded on the basis of the control test that the Dative argument displays more syntactic activity than the Polish Instrumental present in an agreeing periphrastic passive and one instantiation of the nominalization in -nie/cie. On the other hand, Dative argument is not equally active as Nominative Subjects bearing an external  $\Theta$ -role. This is evident in the argument related to Case on adjectival predicates (cf. the discussion surrounding (106) in section 4.3.6). NOM Subject in Polish triggers obligatory agreement on predicative adjectives, as well as secondary adjectival predicates with respect to Number, Gender and Case. Consider (50a) as an example of primary predicate, and (50b) - a secondary adjectival predicate:

- (50) a. Maria jest młod-a/ Jan jest młod-y. Maria $_{sg.f.NOM}$  be young-sg.f.NOM/ Jan $_{sg.m.NOM}$  be young-sg.m.NOM 'Maria/Jan is young.'
  - b. Maria pracuje sam-a/ Jan pracuje Maria $_{sg.f.NOM}$  works alone-sg.f.NOM/ Jan $_{sg.m.NOM}$  works sam- $\varnothing$ . alone-sg.m.NOM 'Maria/Jan works alone.'

However, whenever a NOM argument is missing (as e.g. in -nie/cie nominalization), the primary predicates appear in Instrumental case (cf. (51a)), whereas the secondary ones in Dative case ((51b)):

- (51) a. by-c-ie młod-ym/ \*młod-y be-ES-ie young-sg.m.INSTR/ young-sg.m.NOM 'being young'
  - b. śpiew-a-n-ie sam-emu/ \*sam-∅ sing-TH-ES-ie alone-sg.m.DAT/ alone-sg.m.NOM 'singing alone'

As expected, in DRC secondary predicates appear in what some authors claim to be the 'default' Case, i.e. Dative:

(52) Marii dobrze się siedziało sam-ej/ \*sam-a. Maria $_{DAT}$  well refl sit $_{3sg.n.pst}$  alone-sg.f.DAT/ \*alone-sg.f.NOM 'It was nice for Mary to sit alone.'

Thus, although anaphor binding and control into participial clauses do not distinguish between NOM and DAT Subjects, Case agreement on the sec-

ondary predicates does. In other words, we have seen evidence to the effect that the Dative argument in Polish OOC passes more of the syntactic subjecthood tests than an argument in a by-phrase, but fewer than the NOM Subjects. Assuming that every subjecthood diagnostic corresponds in fact to a higher structural position of the relevant argument, the conclusion seems to be that the DAT argument occupies a position between  $\nu_1P$  and initP.

#### 5.4.2 The reflexive marker

Let me now turn to the role of the reflexive marker and its relation to the presence of Dative on the Subject. Consider the paradigm in (53). (53a) is from Russian, whereas the remaining examples are Polish.:

- (53) a. Lodka unosit-sja vetrom. Medio-passive boat $_{NOM}$  carry-refl wind $_{INSTR}$  'The boat is being carried away by the wind.'
  - b. Ania/pies myje się. Reflexive Ania $_{NOM}$  wash $_{3sg.pres}$  refl $\,$  'Ania washes.'
  - c. Markowi/Psu/\*Książce dobrze leżało się na kanapie. DRC Marek $_{DAT}/\mathrm{Dog}_{DAT}/\mathrm{^*book}_{DAT}$  well lie $_{3sg.neut.pst}$  refl on sofa
    - 'It was nice for Marek/the dog/\*the book to lie on the sofa.'
  - d. Ten chleb łatwo się kroi (\*przez Marka/\*przez każdego). Middle this bread easily refl cut<sub>3sg.pres</sub> (\*by Marek/\*by everyone) 'This bread cuts easily (\*by Marek/\*by anyone).'
  - e. Te książki się czyta, a nie rozrzuca. Impers. these $_{ACC}$  books $_{ACC}$  refl read $_{3sg.pres}$ , and not throw.around $_{3sg.pres}$  'One should read these books instead of throwing them around.'
  - f. Wzięło $^P$  się gitarę i się zaśpiewało $^P$ . Impers. take $_{3sg.neut.pst}$  refl guitar and refl  $sing_{3sg.neut.pst}$  'I/You took the guitar and sang.'

The sentences in (53) are arranged according to the degree of restriction that they place on the (implied) Agent. Thus, in Russian (53a) all DPs are allowed in a by-phrase, including an inanimate DP. The reason why the example is from Russian is that Polish lacks any reflexive construction where an implied Agent might possibly be expressed in a by-phrase. Polish Middle (whether with or without the adverbial) never allows a by-phrase. It is sometimes claimed that this is due to inherent semantic incompatibility of Middles (which are generic statements) with the episodic nature of a by-phrase. Yet, I show in (53d) that even a generic by-phrase yields ungrammaticality. At this point it is necessary to explicate the terminology. Following a bulk of literature on Middles (cf. e.g. Bhatt (2000), Marelj (2004), Lekakou (2004)), I distinguish between Middles and Mediopassives<sup>15</sup>. The latter are episodic sentences which are semantically equivalent to the regular agreeing periphrastic passives, whereas the former are generic statements most

<sup>&</sup>lt;sup>15</sup>The term *Mediopassive* is simply meant to distinguish the relevant construction from a periphrastic participial passive.

often involving some kind of modal component. A useful test distinguishing between the two comes from Progovac (1998): the author argues that the deictic pronoun to in Serbo-Croatian requires an event to point to. Since Middles are stative in nature (whether in virtue of the Gen operator binding an event variable, as in Marelj (2004) or the presence of a covert Modal operator, as in Bhatt (2000)), we expect to to be impossible with them. This is in fact borne out in Polish:

- (54) a. Co się dzieje?
  - b. To drukują się przełomowe artykuly. this  $\operatorname{print}_{3pl.pr}$  refl seminal $_{pl.NOM}$  articles $_{pl.NOM}$  'What you witness is the event of printing seminal articles.'
  - c. \*To drukują się szybko krótkie artykuły. this print $_{3pl.pr}$  refl quickly short articles

(54b) is a Mediopassive receiving an eventive interpretation, which can be referred to by to as a continuation of (54a). (54c), on the other hand, is a Middle construction interpreted statively, and hence impossible in the given discourse. Thus, we see that in spite of the identical morphological representation (i.e. Theme in the NOM inducing verbal agreement, and the reflexive clitic present), the two constructions differ in interpretations. Hence, assuming the parallel syntax-semantics machinery, they must also involve a different structural configuration.

Coming back to the paradigm in (53), in reflexive (53b) only animate DPs are allowed as subjects. The same is true of DRC (in (53c)). The Middle construction in (53d) allows only human implied Subjects<sup>16</sup> Similarly, Impersonal Reflexive Construction (IRC) with imperfective verbs in generic contexts (53e) requires the missing Agent to be interpreted as a generic human pronoun (i.e.  $\operatorname{pro}_{arb}$ ). Finally, when IRC cooccurs with a perfective verb (in (53f)), the reading is discourse-related, i.e. either 1 or 2 person pronoun. I summarize the restrictions on all the constructions involving the reflexive clitic discussed in this work (i.e. including also the constructions discussed in section 3.1 in Table 5.4:

Both (ia) and (ib) are quite deviated and allowed only to the extent to which a speaker is willing to coerce the given scenarios to be predicated of human individuals.

<sup>&</sup>lt;sup>16</sup>In order to see the necessary human interpretation consider the verbs prototypically used as predicates of animals: za-gryźć (pref-bite, 'bite to death') and ob-szczekać (pref-yap; 'yap at someone', tr.):

<sup>(</sup>i) a. ??Tacy ludzie się łatwo zagryząją. such people $_{pl.NOM}$  refl easily bite $_{3pl.NOM}$  b. ??Tacy ludzie się łatwo obszczekują. such people $_{pl.NOM}$  refl easily bark $_{3pl.NOM}$ 

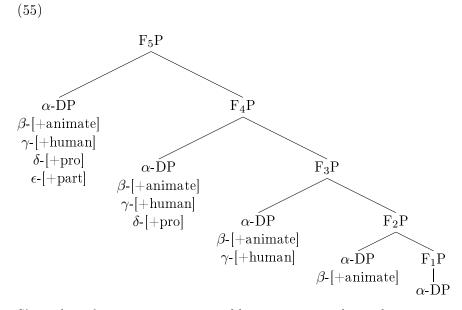
	initP present	semantic restrictions		
Mediopassive	-	any DP		
Anticausative	+	any DP		
DRC	-	animate DP		
Reflexive	+	animate DP		
Pref-induced refl	+	animate DP		
Middle	-	human $pro_{arb}$		
Impersonal (gen.)	-	human $pro_{arb}$		
Impersonal (epis.)	-	1,2 pro		

Table 5.4: Semantic restrictions on argument in reflexive constructions

In 5.4 I have distinguished the particular constructions by virtue of the presence or absence of initP. While this is an assumption, it is clear that in some of the relevant constructions the sole argument is also interpreted as initiating the event (as in anticausatives, reflexives, and prefix-induced reflexives), whereas in others the Undergoer argument does not bear any of the external argument  $\Theta$ -roles. This distinction corresponds to Manzini's (1986) free vs bound variable si. I abstract away in 5.4 from  $Reflexiva\ Tantum$ , as I argued in section 3.1 that they are parasitic on either reflexive or anticausative structures.

Now, the features in (54) create an implicational hierarchy with most specific features being most deeply embedded (cf. also Silverstein (1976)). Building on ideas in Cardinaletti and Starke (1999) and Starke (2001), relating to the typology of structural deficiency of pronouns, as well as parallelism between clausal and nominal functional sequence, I would like to suggest that the relevant hierarchy of features is in fact (a part of) nominal  $f_{seq}$ . Each subsequent projection adds one more feature out of the hierarchically ordered feature pool:  $\alpha$ ,  $\beta$ ,  $\gamma$ , etc.<sup>17</sup>

<sup>&</sup>lt;sup>17</sup>The reader will note that the implications only hold when the whole noun phrase is build. They do not hold, however, during the derivation of a noun phrase, since more specific features are being added. In this sense, the scale is the reverse of Silverstein's Hierarchy (1976).



Since these features are interpretable on nouns, analogously to apectual and Tense features on verbs, they might be taken as functional projections within the nominal domain. Moreover, these features are reflected in the inflectional morphology of nouns on both: intra-paradigmatic and inter-paradigmatic level. Thus, they determine the type of syncretism within an inflectional paradigm of a masculine noun. The group of masculine nouns falls into three subtypes: (i) [+human] nouns characterized by the syncretism of ACC and GEN in both singular and plural Number; (ii) [+animate] nouns characterized by ACC syncretic with GEN in the singular, but with NOM in the plural Number; (iii) the remaining (i.e. [-animate]) nouns with ACC syncretic with NOM in both singular and plural Number. The syncretism is illustrated in Table 5.5:

DP	[+animate] DP	[+human] DP
sg: ACC = NOM	sg: ACC = GEN	sg: ACC = GEN
pl: ACC = NOM	pl: $ACC = NOM$	pl: $ACC = GEN$

Table 5.5: Syncretism within the masculine declension

Finally, on the inter-paradigmatic level, there is some indication that the relevant features might actually have discrete morphological exponents on the DP. Thus, e.g. there is a group of masculine nouns in Polish with the suffix -owie in the plural Nominative, which denote necessarily human entities. E.g. pan-owie ('gentlemen'), sędziowie ('judges'), postowie ('messengers'), etc. That the suffix is not an undecomposable whole is shown by the existence of minimal pairs, as in (56):

(56) a. kr'ol-ow-i-e vs kr'ol-e ('kings')

- b. anioł-ow-i-e vs anioł-y ('angels')
- c. pan-ow-i-e vs pan-y ('masters')

In all of the cases above, a slight pejorative effect is achieved by making the -ow- disappear. In other words, the pejorative effect might be conceived of as depriving the relevant nouns of the human property. Thus, (56c) in its shorter variant might be uttered by a suppressed peasant about his lords. The reason I split -ie- into two separate morphemes is that there exists an independent plural morpheme -e used in the feminine and soft-stem masculine declension patterns. So, what is -i-?

Observe that there is also a distinction within a system between either a palatalizing or a nonpalatalizing suffix<sup>18</sup>. For some nouns with a pejorative flavor the nonpalatalizing plural suffix is the only option (i.e. in spite of the fact that the syncretism of the whole paradigm is that of [+human] masculine nouns), e.g.:

(57) a. 
$$gbur - gbur - y$$
 ('yokel') (ACC pl=GEN pl:  $gbur - \delta w$ )  
b.  $cham - cham - y$  ('cad') (ACC pl=GEN pl:  $cham - \delta w$ )

Interestingly, however, there are also minimal pairs, where the non-palatalizing variant yields a pejoratively loaded noun:

- (58) a. chlop-i vs chlop-y ('peasants')
  - b. Francuz-i vs Francuz-y ('the French')
  - c. ci wspanial-i pedagodz-y ('these wonderful educators') vs te niedouczone pedagog-i ('these unlearned educators')

The effect with the nonpalatalizing variant is also pejorative, but this time it is not the human feature that is involved, but rather the animacy. This is seen from the fact that Francuzy can refer to French cars or cigarettes. Thus, it seems that the palatalization is an exponent of animacy. If Baker's Mirror Principle (1988) holds, then the combination of suffixes -ow-i-e in human masculine declension group seems to yield the following fragment of the nominal  $f_{seq}$ :

(59) 
$$[F_{1P} \mid F_{2P} - i - (animate) \mid F_{3P} - ow - (human)]]$$

(59), however, is the reverse of the structure in (55). This seems to suggest that although the noun is build bottom up by adding more and more semantically specific features, for the purposes of insertion (and interaction with the verbal  $f_{seq}$ ), it is turned upside down, as in (60).

(60) 
$$[_{F_1P} \alpha [_{F_2P} \alpha, \beta, [_{F_3P} \alpha, \beta, \gamma [...]]]$$

<sup>18</sup> Thanks to Lucie Medova for drawing my attention to this fact.

This structure has further interesting correlations in the domain of Case endings (Tarald Taraldsen, p.c.). Thus, Dative Case of certain masculine nouns is (61a), whereas soft-stem feminine and a subgroup of soft-stem masculine Dative nouns are in (61b):

(61) a. Mark-ow-i ('Mark $_{DAT}$ '), klub-ow-i ('club $_{DAT}$ ') b. Mari-i ('Maria $_{DAT}$ '), kuchn-i ('kitchen'), radc-y ('solicitor $_{DAT}$ ')

That seems to suggest that  $F_2P$ , whose morphological exponent is -i-, correlates with Dative case.

Furthermore, it is interesting to observe that Dative Case of neuter declension class (as well as some exceptional masculine nouns) is -u, as in (62):

(62) kot-u ('cat<sub>DAT</sub>), pol-u ('field<sub>DAT</sub>'), okn-u ('window<sub>DAT</sub>)

On the other hand, the preposition u takes as its complement DP in the Genitive Case:

(63) u Marka ('at Marek<sub>GEN</sub>'), u Marii ('at Maria<sub>GEN</sub>)

It might be considered radical to propose a unified analysis for the preposition u and a case suffix -u. Yet, I would like to adopt as an initial heurestic Müller's *Syncretism Principle* in (64):

(64) Syncretism Principle
Identity of form implies identity of function
(in a domain  $\Sigma$ , and unless there is evidence to the contrary).

(Müller, 2004:197)

where I take the relevant domain  $\Sigma$  to include case-marking by means of both adpositions and affixing (cf. e.g. prepositional by-phrase in English and Polish vs Instrumental Agent in the Passive in Russian). That explains at least complementary distribution of the preposition u and a case suffix u (i.e. u ramieni-u ('at arm')).

That seems to suggest that the Dative layer  $(F_2)$  takes as its complement the Genitive layer  $(F_3P)$ . This fact is at least suggestive in view of the observed restriction of Genitive Subjects of Polish -nie/cie nominalization to human interpretation. Thus, the Dative layer corresponding to a [+animate] feature embeds a Genitive layer corresponding to a [+human] feature in the nominal  $f_{seq}$ . Furthermore, the Dative argument in DRC passes more subject hood tests than the by-phrase, hence, by hypothesis, occupies a higher position in the verbal  $f_{seq}$ . These two facts taken together seem to suggest that the nominal functional sequence is in fact inverted with respect to the verbal one. It also seems to suggest that there is a need for another light verb projection in between  $\nu_1P$  (relevant for the agreeing Periphrastic Passive

and its by-phrase) and  $\nu_2 P$  (relevant for the nominalization with a Genitive Agent) occupied by the Dative argument in DRC<sup>19</sup>:

(65) 
$$\left[\nu_{3P} \operatorname{DP}_{GEN} \left[\nu_{2P} \operatorname{DP}_{DAT} \left[\nu_{1P} \ by \ DP \right]\right]\right]$$

Generally speaking then, building on the 'peeling' idea of Michal Starke (oral presentation), I would like to suggest that the DP gets stripped of its functional structure as the verbal derivation proceeds. Adopting Starke's interpretation of *Relativized Minimality*, movement is only possible in a configuration in (66a), where an intervener stands in a subset relation with respect to the thing moved when it comes to the number of features. In other words, the thing moved has to have 'something more' in order to move across  $\alpha$ :

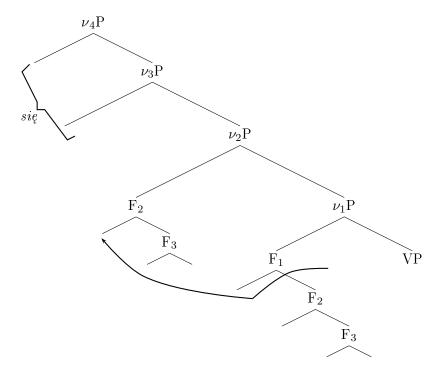
(66) a. 
$$\alpha\beta \dots \alpha \dots \alpha\beta$$
  
b.  $\alpha \dots \alpha\beta \dots \alpha\beta$ 

If an intervener has a superset of features present on the thing moved, as in (66b), it will block any movement across it (as e.g. in impossible extractions out of strong islands in Starke's (2001) data).

In the particular case being discussed, the first layer in the nominal  $F_1$  is attracted to Spec, $\nu_1P$  due to the fact that the relevant feature needs to be checked (or projected, if no Specifiers are assumed). At this level, we are dealing with the presence of semantically unrestricted by-phrase. The next step involves subextraction of the whole subsequence dominated by  $F_2$  to Spec, $\nu_2P$ , resulting in the presence of Dative animate argument. This subextraction is allowed since  $F_1$  is not an intervener with respect to the feature  $[\beta]$ . Now, the next step should involve subextraction of the subsequence dominated by  $F_3P$  to  $\nu_3P$  within verbal  $f_{seq}$ , resulting in the presence of Genitive human DP (as in pan- $\acute{o}w$  'masters' $_{GEN}$ ), as in the Polish nominalization in -nie/cie with Genitive human Agent. Yet, this movement, I submit, does not happen due to the lack of the relevant Probe. In other words, a  $\nu_3P$  without any thematic feature is merged and this light verb projection is later spelled out by the reflexive clitic. This is shown in (67):

<sup>&</sup>lt;sup>19</sup>This yields another prediction: the Genitive Agent in the nominalization should pass more syntactic subjecthood tests than the Dative argument in DRC. As far as I can see, however, there are no diagnostics in Polish distinguishing between these two levels.

#### (67) Dative Reflexive Construction



In (67) I hypothesize that the reflexive marker is lavishly inserted to spell out  $\nu_3$  (corresponding to the level of the nominalization with the Genitive Agent) and  $\nu_4 P$  corresponding now to the level of active perfective participles in Romance/Germanic and Macedonian as well as Impersonal -NO/TO (i.e.  $\nu_3$  in the structure in (127), section 4.3.8). Since  $\nu_4 P$  at least has to have an option of not introducing a thematic feature (as in compund Tense construction), the question is what is its semantic content otherwise? I submit that this is exactly the projection where the causative subevent occurring in Romance FI Causative is introduced. This begs the question why FI Causative is valency-increasing, as opposed to DRC. The answer to this, I suggest, lies in the lexical specification of the reflexive clitic, which, although it can spells out initP, the initP spelled by the reflexive can never have any  $\Theta$ -features. This is different from Romance fare/faire, which spells out the structure [initP ...  $\nu_4$ ] with the argument in the Spec, initP and hence is valency-increasing.

A further question with respect to lexical specification of the reflexive clitic is the availability of ACC Case in DRC. Recall that I am working with the most general assumption that a certain level in  $f_{seq}$  needs to be reached in order for the ACC Case on the object to arise<sup>20</sup> Now, since ACC Case is available in DRC (as well as FI Causative and active perfective participle

<sup>&</sup>lt;sup>20</sup>This is most probably due to the fact that objects are also peeled during the derivation, although a proper analysis of this phenomenon would require a separate dissertation.

constructions), this seems to suggest that (i) either  $\nu_3$ , or  $\nu_4$ , or any higher projection spelled out by the reflexive (if this be the case) needs to be associated with ACC on the Object, and (ii) the reflexive clitic cannot 'suppress' ACC Case in general (contra accounts as e.g. Franks (1995), Reinhart and Siloni (2004), Marelj (2004))<sup>21</sup>. Furthermore, since we have seen in chapter 4 that no incarnation of the nominalization in -nie/cie in Polish preserves ACC Case, it seems to suggest that the presence of  $\nu_3$  is not sufficient to provide the Object with ACC. The general conclusion then is that (i) ACC is available at the level of  $\nu_4$ P or higher, and (ii) the reflexive marker is different from the ES that we saw in chapter 4 in the sense that it is positively specified for the semantic content of the projections it is inserted for. In other words, it does not have the effect of  $f_{seq}$  abortion observed with ES of the -n/t- type.

Coming back to the structure for the DRC in (67), it needs to be observed that for the time being I remain agnostic with respect to what the upper bound of the reflexive is. Since, by hypothesis, there is no initP on top, the DP in Spec, $\nu_2$ P does not check the initiator thematic feature. Therefore, it is interpreted as deprived of instigational properties, acting as if under the superimposed force of the higher Causative subevent located in  $\nu_4$ P. A further question relates to Dative case. Since there is no more thematic feature beyond the feature in  $\nu_2$ , no more nominal layer can be peeled, and hence the argument is frozen in the Dative case. Furthermore, the question arises why couldn't the external argument check NOM Case in some higher projection. It needs to be observed that it cannot be initP that is responsible for the NOM Case since not all Nominative arguments are initiators. Therefore, the conclusion seems to be that the reflexive marker also 'swallows' the projection associated with NOM Case (let us call it NOMP, for the lack of other label)<sup>22</sup>.

One prediction associated with the structure in (67) is that since the reflexive includes in its complement two arguments which are elligible for  $\Theta$ -role reflexive identification (i.e. DP in Spec,VP and DP in Spec, $\nu_2$ ), one expects all the reflexive-marked verbs to be possible in DRC. This is in fact borne out, but with the additional quirk to the effect that only one reflexive clitic is licensed:

(68) a. Dobrze mi się myło (\*się). Reflexive well  $me_{DAT}$  refl wash $_{pst.3sg.neut}$  (refl) 'It was nice to wash for me.'

<sup>&</sup>lt;sup>21</sup>Although the presence of ACC Case can be attributed to the higher verb (i.e. the Causative or the Auxiliary) in the two other constructions, i.e. FI Causative and Perfect Tense, this is not the case in DRC, where no other element than the reflexive clitic occurs. <sup>22</sup>In that sense the reflexive clitic might sometimes involve the effect of NOM (but not ACC!) case 'suppression'.

b. Tak mi się jakoś przewróciło (\*się) Anticaus. thus  $me_{DAT}$  refl somehow overturn $_{pst.3sg.neut}$  (refl) 'I accidentally fell.'

- c. Uśmiechało się (\*się) jej łatwo. RT smile $_{pst.3sg.neut}$  refl (refl) her $_{DAT}$  easily 'It was easy for her to smile.'
- d. Szybko jej się roz-tyło (\*się). Pref-ind. quickly  $her_{DAT}$  refl pref-put.weight $_{pst.3sg.neut}$  (refl) 'She quickly happened to put on weight.'

In the traditional approach, if the reflexive relevant for DRC was inserted into  $\nu_3$ , and the identifying reflexive was, as argued in section 3.1, a separate projection on top of FI Causative, then there would be no reason why the two should not cooccur. If, however, the reflexive is *lavishly inserted* to spell out the structure starting from  $\nu_3$  until the NOM layer, then it follows that both of the relevant projections are present, with only one occurrence of the reflexive clitic.

## 5.4.3 The typology of reflexive-marked constructions

Let us then set the Dative Reflexive Construction against the background of other reflexive uses under discussion. So far, in chapter 4, we have seen the evidence for the following fragment of the verbal  $f_{seq}$ : [initP,  $\nu_4$ P,  $\nu_3$ P,  $\nu_2$ P,  $\nu_1$ P, VP, RP]. I take it that whenever initP seems to be absent (i.e. there is no argument interpreted as initiator), initP is in fact spelled out by the reflexive, but lacks any thematic features. To this subsequence I add a NOMP, to distinguish between the structures where the NOM Case is available, and the remaining structures. Whenever there is no evidence to decide whether a particular projection is in fact spelled out by the reflexive, I mark it as '?'. The Impersonal Reflexive Construction in (53e) and (53f) is henceforth referred to as IRC. Thus, the following situation seems to obtain:

	NOMP	initP	$\nu_5 \mathbf{P}$	$\nu_4 \mathbf{P}$	$\nu_3 \mathbf{P}$	$\nu_2 \mathbf{P}$	$\nu_1 \mathbf{P}$
Mediopass	- *	+	?	?	?	+	_
Anticaus	- *	- *	?	?	?	?	-
DRC	+	+	?	+	+	-	-
Refl	_ *	_ *	?	?	?	-	-
Middle	_ *	+	+	-	-	-	-
IRC (generic)	+	+	+	-	ı	-	-
IRC (epis)	+	+	-	-	-	-	-

Table 5.6: Spell out of the reflexive clitic in various constructions

Let us now discuss in detail the justification of the spell out of particular projections in 5.6. Starting from the bottom of the subsequence, it is a

theory-internal reason that yields the assumption that in none of the constructions does a reflexive clitic spell out the first light verb projection, i.e.  $\nu_1 P$ . This is due to the lexical specification of Theme<sub>high</sub>, where this projection is an obligatory element in the spell out of Theme<sub>high</sub> (cf. section 2.2.2), other things being equal<sup>23</sup>. Furthermore, I have included one additional projection in (68)-  $\nu_5$ , which hosts the most deficient external arguments, i.e. [+participant] pronouns (i.e. speaker and addressee). This projection will turn out useful for the episodic use of IRC.

#### Mediopassive

Furthermore, in Russian Mediopassive (cf. (53a) as an example), the only external argument available is an optional Instrumental without any semantic restrictions. That seems to suggest that the second light verb -  $\nu_2 P$  does not act a Probe for the external argument, as the latter cannot peel its layers up to the Dative case. Nor is initP available for the external argument, which seems to suggest that the reflexive clitic 'swallows' the initP. There is no direct evidence for the spell out of the intermediate projections:  $\nu_5$ ,  $\nu_4$ ,  $\nu_3$ . However, since I assumed in section 1.2 that lavish insertion applies to continuous heads, these intermediate projections must also be spelled out by the reflexive clitic. Thus, in Mediopassive, the reflexive spells out the following subsequence:

# (69) Mediopassive refl: [init, $\nu_5$ , $\nu_4$ , $\nu_3$ , $\nu_2$ ]

One desirable consequence of this analysis of Mediopassive is the fact that in Mediopassive the external argument is still an unpeeled optional [F<sub>1</sub>.... NP] located in the adjectival region of the universal sequence. This is not enough for the reflexive to identify the two  $\Theta$ -roles: internal with an external one, and results in the following prediction. Any attempt to form a Mediopassive with a reflexive verb will lose its Passive reading. This is because in the Reflexive structure the argument needs to raise to Spec, $\nu_2$  in order for the identification of  $\Theta$ -roles to be possible (and additionally resulting in the animacy restriction). This, however, is not possible in the Mediopassive since  $\nu_2$ P is by hypothesis blocked by the reflexive without any thematic features. This prediction seems to be confirmed: (70) can only mean: X washes X, but not \*X is washed by X, and is essentially a Reflexive structure (see below).

(70) Maša moet-sja. Russian
Maša wash-refl
'Masha washes (herself).'

<sup>&</sup>lt;sup>23</sup>The situation when other things are not equal amounts to a merger of an ES before an eventive subsequence is started, resulting in the adjectival passive.

#### Anticausatives

When it comes to Anticausatives (cf. section 3.1 for examples), it is clear that initP needs to bear a thematic feature, as I argued that the argument merged VP-internally moves to check the initiator feature. Therefore, initP cannot be spelled out by the reflexive. Since the sole argument of anticausatives is in NOM, it follows that NOMP is also available. Since no direct evidence is available with respect to the intermediate projections, but they are anyway spelled out in other constructions involving the reflexive clitic, it is plausible to assume that also in the Anticausative the reflexive spells out the following subsequence. On the other hand, the intermediate light verb projections might just as well be spelled out by Theme<sub>high</sub>, except that the  $\Theta$ -features on them would have to be absent. If they were present, the VP-internal argument would have to pass through the relevant light verbs on its way to Spec, initP. This movement, in turn, might yield a different result with respect to some of the unaccusativity diagnostics (e.g. ne/en-cliticization in Romance or Genitive of Negation in Russian - cf. section 3.1 for the relevant discussion). Thus, one might expect different subextraction results depending on the semantic denotation of the argument of Anticausative. As far as i know, this is not the case. Finally, the question whether it is Theme<sub>high</sub> without thematic features, or the reflexive that spells out the intermediate light verb projections  $[\nu_5,... \nu_2]$  seems not to be verifiable at the present level of understanding. In the lexical entry in (71) I will arbitrarily assume that it is the reflexive.

# (71) Anticausative refl: $[\nu_5, \nu_4, \nu_3, \nu_2]$

This assumption, however, yields the result to the effect that peeling the Case layers does not have to be gradual: in other words, the sole argument of Anticausatives will involve subextraction of already a quite deficient structure, i.e.  $[F_6...NP]$  directly from Spec,VP (or Spec,RP if the former is not present) into Spec,initP.

#### DRC

The next construction - DRC - (cf. (53c)) involves a configuration where the reflexive is inserted on top of  $\nu_2$ . This is evident in view of the fact that the external argument is animate and cannot peel any more of its functional structure (e.g. GEN is unavailable in DRC). At the same time I have argued that the clitic spells out also the higher FI Causative subevent in  $\nu_4$ . Since neither Nominative case nor initP are available in DRC, the conclusion is that the clitic 'swallows' both of the projections. By (57) in section 1.2,  $\nu_5$  cannot be excluded from the spell out of the clitic. Therefore, DRC involves the following sie insertion:

# (72) **DRC refl**: [NOM, init, $\nu_5$ , $\nu_4$ , $\nu_3$ ]

#### Reflexive

In the Reflexive structure (cf. (53b)), the Nominative position needs to be available since the external argument ends up in the NOM Case. It is less clear whether initP must also be available. In other words, in the structure in (90), section 3.1.5, it was an implicit assumption that the external argument does not travel higher to Spec,initP. As far as I can see, however, nothing crucial would go wrong if it did, in which case the reflexive could not possible be spelling out init due to the presence of a thematic feature on it. In the lexical entry in (73) I assume the latter is the case. On the other hand, the lower bound of the spell out in reflexive construction has to lie on top of  $\nu_2$ P since the argument needs to raise via Spec, $\nu_2$ P, as documented by the animacy restriction<sup>24</sup>. In spite of any direct evidence for the spell out of  $\nu_5$ ,  $\nu_4$ ,  $\nu_3$ , by the same reasoning as with Anticausatives, I will assume that the clitic spells out these projections.

(73) Reflexive refl:  $[\nu_5, \nu_4, \nu_3]$ 

#### Middles

Finally, I interpret the fact that the external argument in **Middles** (cf. (53d)) is restricted to human  $pro_{arb}$  as indicating an analysis analogous to Impersonal -NO/TO. Since under my assumptions  $pro_{arb}$  is only available once the argument has been peeled up till F<sub>4</sub>, i.e. at the level of  $\nu_4$ P, it seems to suggest that the clitic in Middles cannot spell out  $\nu_4$ . On the other hand, we have good evidence to the effect that  $pro_{arb}$  in Middles (or in Impersonal construction - see below) does not raise to the NOM position. This is due to the presence of Dative Case on secondary adjectival predicates, as shown in  $(74)^{25}$ :

(74) Niektóre artykuły łatwo czytają się sam-emu/ \*sam- $\varnothing$ . some articles $_{pl.NOM}$  easily read $_{3pl.pr}$  refl alone-sg.m.DAT/ \*alone-sg.m.NOM 'Some articles can easily be read alone.'

Still, there is another argument in Middles that bears NOM case - the Theme. For this reason NOM secondary adjectival predicates are also allowed, though they seem to be more restricted:

(75) a. Artykuły językoznawcze piszą się czasem sam-e/ \*sam-ym. articles<sub>non-vir.NOM</sub> lingistic write<sub>3pl.pr</sub> refl sometimes alone-non.vir.NOM/ \*alone-non.vir.DAT

'Linguistic articles sometimes write by themselves (i.e. very easily).'

<sup>&</sup>lt;sup>24</sup>Incidentally, the same needs to be true of prefix-induced reflexives, *mutatis mutandis*.

<sup>25</sup>As I argued in chapter 4 that the feature specification of *pro<sub>arb</sub>* in Polish is singular, masculine, in (74) I only try the relevant variant of the NOM adjective.

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This suggests that the secondary adjectival predicates can in fact be parasitic on both: the external argument which has not reached the NOM position, and the internal argument in the NOM position. Taken together, all of these facts indicate that the clitic is inserted for the following subsequence in the Middle construction:

## (76) Middle refl: [init, $\nu_5$ ]

No projections lower than  $\nu_5$  can be spelled out due to *lavish insertion* applying to continuous heads (cf. (57) in section 1.2).

One point relating to Middles needs to be made explicit. Accounts like Marelj (2004), whose working assumption is that the semantic level is in fact separate from the syntactic one, allow for the existence of processes or diagnostics relying purely on the semantic representation (Lexical Conceptual Structure or Lexical Semantic Representation or any of the semantic levels postulated in lexical approaches). Therefore, the availability of Instrument phrases with Middle is for her the evidence to the effect that there is an implicit ARB argument present in Middles:

(77) Jedwabne sukienki łatwo piorą się **Arielem**. silk dresses $_{NOm}$  easily wash $_{3pl.pr}$  refl Ariel $_{INSTR}$  'Silk dresses wash easily with Ariel.'

If, however, the tenet relating to the existence of a separate semantic level is to be rejected, as in the present work, then the availability of Instrument phrase in Middles (as opposed to 'real' unaccusatives<sup>26</sup>) in (77) needs to be taken as evidence in favour of the presence of an external argument on a syntactic level. From this standpoint, however, it might seem problematic that certain diagnostics passed by overt external arguments are failed in Middles, e.g. agentive adverbs as *intentionally*. (78a) is an attempt to add an Agent-oriented adverb to an English Middle, and (78b) its equivalent in Polish:

- (78) a. The bureaucrats bribe easily (\*intentionally).
  - b. Takie koszule łatwo się piorą (\*celowo) such shirts $_{NOM}$  easily refl wash $_{3pl.pr}$  (\*intentionally) intended: 'Such shirts wash easily intentionally.'

However, it might just as well be the case that these Agent-oriented adverbs are unacceptable in Middles due to a stative nature of the latter construction (cf. e.g. Cinque (1988), Keyser and Roeper (1984), Fagan (1988), Roberts (1985), and many others). The stative nature of Middles, in turn, can also be questioned. To wit, although stative verbs do not occur in the Progressive

<sup>&</sup>lt;sup>26</sup>It is a separate question why anticausatives also do not allow Instrument phrases to be expressed. It seems that Instrument requires an *agentive* light verb to be present, and, as I argued in section 3.1, no such light verb is present in Anticausative structure.

- (cf. Dowty (1979)), Middles can occur in the Progressive in English, as observed in the literature:
- (79) a. Bureaucrats are bribing more than ever in Reagan's second term.

Roberts (1985)

b. This manuscript is reading better every day.

Fagan (1992)

Yet, even in these cases, they are argued (cf. e.g. Roberts (1985) and Fagan (1992)) to be interpreted statively. What, however, of Polish, where verbs in the Secondary Imperfective can freely occur in Middle construction, as shown in (80):

(80) a. Plany mieszkań ciężko się roz-rys-ow- $\mathbf{y}$ w-ują. plans $_{NOM}$  appartments $_{GEN}$  hard refl pref-draw-TH-SI-3pl.pres 'Appartment plans are hard to sketch out.'

In section 2.2.8 I have argued that every SI verb in Polish receives an eventive interpretation (cf. examples (138)-(143)). The stative interpretation of (80), in conjunction with the eventivity of every SI verb in Polish, seems to result in the conclusion that the stative nature of Middles is in fact superimposed on the SI structure, as opposed to stemming from the lexical specification of a class of verbs occurring in the Middle construction. In a lavish insertion system this can be implemented only by saying that the reflexive in Middles spells out some Modal projections, as all Modals are always interpreted statively (cf. also Bhatt (2000) for a covert Modal operator in Middles). I will, however, leave the issue relating to the nature and the hierarchical position of this Modal head for future research (cf. also the discussion in section 5.4.5).

#### IRC

Let us now turn to the Impersonal sie construction in its generic instantiation. Differently from Middles, NOM position is not available in Impersonal construction, as evidenced by Dative case on secondary adjectival predicates ((81a)), and Instrumental case on primary adjectival predicates ((81b)):

- (81) a. Takie artykuły łatwiej czyta się sam-emu/ \*sam- $\varnothing$ . such articles $_{ACC}$  easier read $_{3sg.pres}$  refl alone-DAT/ \*alone-NOM 'It's easier to read such articles alone.'
  - b. Rzadko jest się szczęśliw-ym/ \*szczęśliw-y rarely be $_{3sg.pres}$  refl happy-sg.m.INSTR/ \*happy-sg.m.NOM 'One is rarely happy.'

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Since the argument is frozen in the  $[F_5...NP]$  shape, it suggests that also the initiator position is spelled out by the reflexive clitic. The presence of  $pro_{arb}$  is what makes the two structures, i.e. Middles and Impersonal sie similar. However, there is one fundamental difference between them: Middles cannot involve Themelow stems. This is shown in (82).

- (82) a. \*Maria się bez problemu pięk-ni-ej-e.

  Maria<sub>NOM</sub> refl without problem beaut-adj-ej-pres.3sg
  intended: 'Maria gets beautiful without any problem.'
  - b. \*Herbata się łatwo styg-n-ie w tym kubku.  $tea_{NOM}$  refl easily get.cold-n-pres.3sg in this mug intended: 'Tea easily gets cold in this mug.'

However, an example parallel to (82b) involving a high Theme is perfectly fine:

(83) Herbata się łatwo studz-i w tym kubku. tea refl easily make.cold-i $_{pres.3sg}$  in this mug 'Tea makes cold easily in this mug.'

One reason why this has not been emphasized enough in the literature is English *This cup breaks easily*. This sentence seems to allow unaccusative verbs in Middles. If, however, it turns out that English *break* is in fact anticausative, as I argued in section 3.1.1, then both Polish and English pattern together in not allowing 'real unaccusatives' in the Middle construction. In that sense (84a) and (85a) has to be distinguished from (84b) and (85b) as a non-Middle construction.

- (84) a. The prices on these products rise easily.
  - b. The prices on these products raise easily.
- (85) a. These trees fall down easily.
  - b. These trees fell easily.

One substantiation of this claim comes from the fact observed in Lekakou (2004): Middles do not tolerate overt root modals since they already encode root modality. This seems to hold of (84b) and (85b), but not of (84a) and (85a).

The same restriction to non-unnacusative verbs is not true of Impersonal sie construction (in either its generic or episodic instantiation): Theme<sub>low</sub> stems are freely allowed in this construction. (86a) is an example of generic Impersonal sie, whereas (86b) - episodic Impersonal sie - both involving 'real' unaccusative verbs. Additionally, a passive 'Auxiliary' is also shown to be embedable under the Impersonal sie construction in (86c). The last point is not surprising if Passive 'Auxiliary' is in fact a lexical verb (cf. the

discussion in section 4.2).

- (86) a. Czesto głupi-ej-e się z miłości. often stupid- $\mathrm{TH}_{low}$ -3sg.pr refl from love 'One often gets stupid out of love.'
  - b. O, widzę, że się wy-ros- $\varnothing$ -ło! oh, see $_{1sg.pr}$  that refl pref-grow-TH $_{low}$ -3sg.n.pst 'Oh, I see that you have grown!'
  - c. Rzadko jest się docen-i-a-n-ym. rarely be<sub>3sg.pr</sub> refl appreciate-TH-SI-ES-sg.m.INSTR 'One is rarely being appreciated.'

I will not offer any explanation for the contrast between restricted Middles in (82) and unrestricted Impersonals in (86), although the answer should probably be related to the projection assigning NOM Case, as this is the only difference between the two structures on the present account.

As has been argued in chapter 4 for the Impersonal -NO/TO construction in the previous chapter, this high level of argument peeling in both Middles and Impersonal sie meets with the language-internal problem of spell out. Since there is no lexical item in Polish expressing human pronominals, nonovert pro is allowed.

Last but not least, there is the **episodic IRC** in (53f), where the covert argument is interpreted as either [+participant], i.e. either speaker or hearer. Since [+participant] is the next feature on Silverstein's (ibid.) Hierarchy, the conclusion seems to be that there is another projection -  $\nu_5 P$  - which involves a thematic feature in the episodic IRC, but lacks the relevant feature in all the other constructions, including the generic instantiation of the IRC. Consequently, the reflexive clitic in the episodic instatiation of the IRC must up-squeezed on top of  $\nu_5$ . The insertion of the reflexive clitic in generic and episodic IRC is presented in (87a) and (87b) respectively:

(87) a. generic IRC refl: [NOMP, initP,  $\nu_5$ ] b. episodic IRC refl: [NOM, initP]

One additional point that is noteworthy is the compatibility of reflexive-marked verbs with IRC. If the relevant projection licensing identification of  $\Theta$ -roles is located lower than  $\nu_5 P$ , then no reflexive identification should be allowed in IRC. If, however, reflP is higher in  $f_{seq}$  than  $\nu_5 P$ , then we expect the reverse to hold. And in fact it seems reflexive-marked verbs are allowed in IRC, although again only one occurrence of the clitic is grammatical. (88a) is a Reflexive verbs, (88b) - prefixed-induced use of the clitic, and (88c) - Reflexive Tantum.

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- (88) a. Tutaj się myje nieczęsto. here refl  $wash_{pres.3sg}$  not.often 'One does not wash often here.'
  - b. Czasem za-kochuje się w nieodpowiednich osobach. sometimes pref-love $_{pres.3sg}$  refl in inappropriate people 'Sometimes one falls in love with inappropriate people.'
  - c. Czasem uśmiecha się do kogoś niechcący. sometimes smile<sub>pres.3sg</sub> refl to somebody unwillingly 'Sometimes one smiles to somebody unwillingly.'

One might suggest that the derivations in (88) are in fact reflexive derivations identical in structure to (53b). Yet, it is then not clear what would license the occurrence of pro. In other words, why is it that the sentences with non-reflexive verbs cannot have a  $pro_{arb}$  Subject (i.e. be interpreted as Impersonals). E.g. (89) can only have a discourse-linked antecedent for  $pro^{27}$ .

(89) a. Często myje zęby. often  $\operatorname{wash}_{pres.3sg}$  teeth $_{ACC}$  'S/he often brushes his/her teeth.'

As a way of summary, let us propose a unified lexical entry for the reflexive clitic in Polish, taking into consideration the way the clitic is inserted in all of the above constructions: Mediopassive (in (69)), Anticausative (in (71)), Reflexive (in (73)), DRC (in (72)), Middle (in (76)), generic and episodic IRC (in (87)).

(90) Polish reflexive clitic: [(NOM (,init (,
$$\nu_5$$
 (, $\nu_4$ ,  $\nu_3$  (, $\nu_2$ )))))]

As evident in the netry in (90), there is in fact no obligatory element in the lexical specification of the reflexive clitic. In other words, there is no element in common for all the reflexive-marked constructions. We have already seen similar lexical specification for Theme<sub>high</sub>. Observe also the interdependence between  $\nu_4$  and  $\nu_3$ : if one is spelled out, the other has to be present as

(D'Alessandro, 2003:(10-11))

<sup>&</sup>lt;sup>27</sup>Italian is interesting in this respect and seems to provide suggestive evidence to the effect that structures with reflexive verbs in IRC are in fact distinct from pure Reflexive derivations. This is because in Italian the relevant sentence involves two occurrences of the reflexive, except that one of them is spelled out differently, i.e. as *ci*.

b. Ce li si è scambiati. ce them refl is exchanged $_{m.pl}$  'People have exchanged them (one another).'

well. This seems to be a Polish-specific feature. One could in principle expect reflexive constructions with a human Genitive Agent in other languages.

The last issue relates to the projections marked as '\*' in Table 5.6, i.e. init and NOM. The question that arises is which element spells them out if it is neither the Theme nor the reflexive marker. One potential candidate is the Tense morpheme (i.e. either present -i/e- or past -l-). It has to be also observed that if lavish insertion is to apply to constituents only, then the complement of the lowest projection spelled out by the reflexive marker in each particular construction needs to move to the position higher than the locus of Tense morpheme. In the next section I compare the constructions involving the reflexive marker with the constructions involving ES morphology analysed in chapter 4.

# 5.4.4 Comparison with participial constructions

The proposal presented above assimilates the Mediopassive to the regular 'participial' Periphrastic Passive (cf. chapter 4), whereas the IRC should be equivalent to the Impersonal -NO/TO construction. Ideally, this should correlate with some other properties in common, as it in fact does.

Let me start with the IRC, which behaves as if it has a full-fledged external argument in the three relevant respects: (i) possibility to support adjectival secondary predicates, (ii) anaphor binding, and (iii) control into participial clauses (cf. (91a), (91b), and (91c) respectively) and in this sense patterns with Impersonal -NO/TO (in (92)).

- (91) a. Tę książkę czyta się nagim. this book $_{ACC}$  read $_{3sg,pres}$  refl naked $_{sg.m.INSTR}$  'This book should be read naked.'
  - b. Tej książki się nie czyta swojej żonie. this  $book_{GEN}$  refl neg  $read_{pres.3sg}$  refl. $poss_{DAT}$  wife $_{DAT}$  'One shouldn't read this book to one's wife.'
  - c. Wypi-wszy herbatę, czyta się książkę. drink-p.prt tea, read $_{3sg.pres}$  refl book $_{ACC}$  'Having drunk the tea, one goes for a walk.'
- (92) a. Czyta-no książkę nagim. read-NO book<sub>ACC</sub> naked<sub>INSTR.sg.m</sub> 'Someone was a reading a book naked.'
  - b. Czyta-no książkę swojej żonie. read-NO  $book_{ACC}$  refl.poss $_{DAT}$  wife $_{DAT}$  'Someone was reading a book to his wife.'
  - c. Wypi-wszy herbatę, czyta-no książkę.
     drink-prt tea, read-NO book<sub>ACC</sub>
     'One was reading a book, having drunk the tea.'

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The above constructions are different in the two relevant respects from both Mediopassive (in (93)) and the agreeing Periphrastic Passive (in (94)). Both adjectival secondary predicates, as well as control into participial clauses are ungrammatical in Mediopassive and agreeing Passive. Anaphor binding, on the other hand, is only slightly worse than with Impersonal constructions:

- (93) a. Artkuły się właśnie drukują (\*nag-im). articles $_{NOM}$  refl just print $_{3sg.pl.pr}$  naked-sg.m.INSTR intended: 'The articles are just being printed naked.'
  - b. ?Filmy oglądają się właśnie w swoich celach. movies $_{NOM}$  watch $_{3pl.pr}$  refl just in refl-poss cells 'The movies are being watched just now in one's cells.'
  - c. \*Pij-ąc herbatę, drukują się książki.
    drink-pr.prt tea, print<sub>3pl.pr</sub> refl books<sub>NOM</sub>
    intended: 'Books are being printed when drinking tea.'
- (94) a. Artykuły są druk-owa-n-e (\*nag-im). articles $_{NOM}$  be $_{3pl.pr}$  print-TH-ES-non.vir (\*naked-sg.m.INSTR) intended: 'The articles are being printed naked.'
  - b. ?Filmy są właśnie ogląd-a-n-e w swoich movies $_{NOM}$  be $_{3pl.pr}$  just watch-TH-ES-non.vir in refl-poss celach.

    cells intended: 'The movies are just being watched in one's cells.'
  - c. \*Pij-ąc herbatę, książki są druk-owa-n-e. drink-pr.prt tea, books be<sub>3pl.pr</sub> print-TH-ES-non.vir 'Books are being printed when drinking tea.'

Finally, one more prediction stems from the above analysis: if both Mediopassive and agreeing Passive on the one hand, as well as IRC and -NO/TO on the other, display analogous structures, the prediction is that they should never cooccur. Both of the sides of the prediction are borne out, as shown in (95):

- (95) a. \*Artukuły się właśnie są druk-owa-n-e.  $articles_{NOM}$  refl just  $be_{3pl,pr}$  print-TH-ES-non.vir
  - b. \*Druk-owa-n-o się wtedy rzadko artykuły.

    print-TH-ES-o refl then rarely articles<sub>ACC</sub>
    intended: 'One printed articles rarely then.'

Finally, it is in order to explain another cooccurrence restriction observed in section 5.3, namely, the inability of DRC to undergo passivization. The relevant example is repeated in (96):

(96) \*Ta lina łatwo mi się była trzym-a-n-a. this line  $_{NOM}$  easy me $_{DAT}$  refl bepst.3sg.fem hold-TH-ES-3sg.fem

Since I have concluded that the reflexive in DRC spells out the structure  $[\nu_3, \nu_4, \nu_5, \text{init}, \text{NOM}]$ , it follows that the construction is mutually exclusive with the ES in the agreeing periphrastic passive, which spells out roughly the same region, i.e.  $[\nu_2, \nu_3, ..., \text{initP}]$ .

### 5.4.5 Loose ends. Accidental vs ability readings

Let me finally turn to the intriguing issue concerning the interpretation of OOC depending on the aspectual properties of the embedded verb. The problem at hand is illustrated in the paradigm in (97) for Dative reflexive construction:

- (97) a. Dobrze/(\*tak) mi się czytało. well/thus  $me_{DAT}$  refl read<sub>imp</sub> 'I was able to read.'

  "\*I accidentally read.'
  - b. Tak/dobrze mi się prze-czytało.  $^{28}$  thus/well me $_{DAT}$  refl pref-read $_{perf}$  'I happened to read it this way/well.'  $^{*8}$ I was able to read it this way/well.'
  - c. Łatwo mi się wy-pis-ywa-ło cytaty. easy me $_{DAT}$  refl pref-write-imp-pst.sg.neut $_{imp}$  quotations $_{ACC}$  'It was easy for me to write out the quotations.'
  - '\*I happened to write out the quotations easily.'
    d. Tak mi się jakoś po-roz-rzuc-a-ło $_{perf}$  te thus me $_{DAT}$  refl somehow pref-pref-throw-imp-pst.sg.neut these rzeczy.

things

'I somehow accidentally threw these things around distributively.'

'\*I was able/managed to throw these things around distributively.'

One might envisage relating the difference between ability and accidental reading to the different flavor of causative functor involved in both, i.e. coercive (for accidental readings) and permissive (for ability readings). In other words, if some event or the circumstances allow the Agent to perform a certain action, he/she is able to do it. This is a permissive flavor of the Causative. On the other hand, when the coercive flavor is present, the accidental/involuntary reading arises. This line of explanation, however, has nothing to offer with respect to why a particular flavor should be forced to

<sup>&</sup>lt;sup>28</sup>Note incidentally that this example shows that the type of adverbial is secondary to the aspectual properties of the verb since the interpretation in (97a) and (97b) is different, though the same adverb occurs.

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merge on a particular verb, i.e. coercive on top of a perfective, and permissive on top of imperfective verb.

On the other hand, the paradigm in (97) makes one tempted to consider a different explanation. (97a) - a bare imperfective stem verb, as well as (97c) - a Derived Imperfective verb are both interpreted as abilitative. On the other hand, in (97b) with a prefix acquired in Asp<sub>1</sub>, and (97d) with a high prefix realizing Asp<sub>3</sub>, the reading is accidental. The potential solution might involve the notion of up-squeezing explained in 1.2, examples of which we have seen throughout this dissertation.

Suppose further that in the case of OOC we are dealing with a really low circumstantial Modal head.

(98) 
$$\left[\nu_{4}P\left[Asp_{perf}P\left[Mood_{ability}P\left[Asp_{imp}P\right]\right]\right]\right]$$

That requires an additional assumption that perfective verbs have to check the relevant feature higher in  $f_{seq}$  than imperfective ones (including SI). Then one might suggest that in case the verb is perfective, the reflexive will be squeezed up to spell out only the Causative head, without any Modal semantics, since the prefix needs to spell out  $Asp_{perf}$ . Differently with imperfectives, the verb will spell out the structure up until  $Asp_{imp}$  and the reflexive clitic is allowed to spell out a bigger subsequence, including the Modal head.

There are, however, reasons to doubt that kind of proposal, and not only due to a quite low position of the Modal.

The first argument concerns Russian ability DRC. In Russian, prefixed verbs in the inversion construction are supposed to result in ungrammaticality due to illicit object deletion. Yet, once the object deletion is controlled for, it turns out that *po*-prefixed perfective verbs are allowed. Strangely enough, the reading in this case is that of ability:

(99) Mne mnogo po-rabotalo-s'.  $me_{DAT}$  a-lot po-worked<sub>3sg.neut</sub>-refl 'I was able to work a lot.'

This fact raises a problem for any attempt to tie the accidental vs ability difference to the outer aspectual properties of the verb. One might modify the claim slightly and state that the readings are in fact sensitive to inner aspectual distinctions (i.e. telic vs atelic, change of state vs lack thereof). Yet, even that version of the claim seems to be invalidated by St'át'imcets. We saw in section 5.2 that the effects of transitivizers could be overriden in the scope of Negation:

(100) **cw7aoz** kw-s **ka**-sék-s-as-a [ti sq'úm'ts-a] **NEG** DET-NOM **OOC**-hit-CAU-ERG-**OOC** DET ball-DET [ti sqáycw-a] DET man-DET 'The man is not able to hit the ball.'

Under the present analysis it is not possible that the init-less Cause (i.e.  $\nu_4$ ) embeds NEG, since it occupies too low a place in  $f_{seq}$ . The only possible structure is where negation attaches outside the Voiceless Causative. That results in the interpretation: The man is not able to..., as opposed to The man is able not to..., as confirmed by the facts. Yet, it also seems to show that the accidental/ability reading cannot be derived from the aspectual properties of the embedded predicate. Rather, it seems to be pragmatically derived from the whole structure. In that context it is relevant to point out that sometimes the two readings are difficult to tease apart, e.g. in Malagasy example (11) in section 5.2, or in St'át'imcets examples of transitive achievements in (101).

- (101) a. Ka-zíksas-a ta srápa i sám7a.

  'The white people cut the tree down accidentally.'

  'The white people managed to cut the tree down.'
  - b. Ka-sék'wsas-a ta nk'wanústen'a ta twéww'eta.'The boy broke the window accidentally.''The boy managed to break the window.'

(Davis, in preparation: (70-1), chapter 25)

These cross-linguistic considerations seem to me to invalidate any analysis where the difference in readings is keyed to structural considerations, at least at the present level of understanding.

Finally, I would like to briefly mention a phenomenon which seems quite parallel to DRC, namely u-prefixation. The relevant verbs are illustrated in (102):

- (102) a.  $nie\acute{s}\acute{c}$  'carry'  $u\text{-}nie\acute{s}\acute{c}$  'be able to carry'  $^{29}$ 
  - b.  $sta\acute{c}$  'stand' u- $sta\acute{c}$  'be able to stand'
  - c. ciągnąć 'drag' u-ciągnąć 'be able to drag'
  - d. trzymać 'hold' u-trzymać 'be able to hold'
  - e. dźwignąć 'lift' u-dźwignąć 'be able to lift'
  - f. leżeć 'lie' u-leżeć 'be able to lie'
  - g. siedzieć 'sit' u-siedzieć 'be able to sit'
- (103) a.  $pa\acute{s}\acute{c}$  'fall' u- $pa\acute{s}\acute{c}$  'fall accidentally'
  - b. puścić 'drop' u-puścić 'drop accidentally'

<sup>&</sup>lt;sup>29</sup>But also irrelevantly 'start to lift, affect only a part of an object'.

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c.  $stana\acute{c}$  'stop' u- $sta\acute{c}$  'cease'

The analogy to OOC data is the presence of accidental and ability readings with the prefixed variants. Moreover, the distinction between the readings is dependent on the aspectual properties of the base verb. Thus, in (102), the verbs are imperfective, and the reading after u-prefixation is that of ability. Moreover, it seems to be the 'absolute' dispositional ability reading that Butt (1997) mentions with respect to the Urdu le construction. Differently in (103), where the unprefixed verbs are (exceptionally) perfective, and the resultant reading is accidental or all-of-a-sudden (as in (103c)). To the extent that in (102) the prefix changes outer aspectual properties of the base verb (and in this sense is reminiscent of the Malagasy and Tagalog telic prefixes), it does not contribute aspectually in (103) (i.e. both unprefixed and prefixed version is perfective).

Interestingly, u-prefixation is similar to Salish OOC even more than to Polish DRC, since although it imposes animacy restriction on the external arguments (cf. (104ab)), the sole arguments of unaccusative u-prefixed verbs seem unrestricted semantically (cf. (104c)).

- (104) a. Jan/ pies/ książka leży na kanapie. Jan/ dog/ book lie $_{pres.3sg}$  at sofa 'Jan/ the dog/ the book lies on the sofa.'
  - b. Jan/pies/\*książka nie u-leży na kanapie. $<math>Jan/dog/*book neg u-lie_{pres.3sg}$  at sofa 'Jan/the dog/\*the book is not able to lie on the sofa.'
  - c. Maria/ Książka u-padła. Maria/ book u-fall<sub>pst.3sg.f</sub> 'Maria/ the book fell.'

I will not, however, attempt an analysis of this construction in view of the fact that (102) and (103) contains pretty much an exhaustive list of verbs where the prefix contributes the relevant meaning. Therefore, any generalizations based on this group of predicates seem risky.

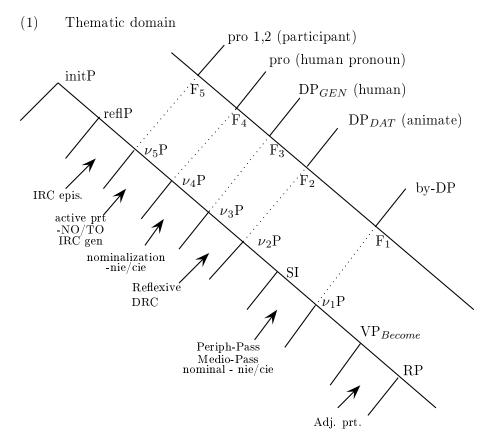
Recapitulating the results of the present chapter, I have argued that the so-called Out-of-Control morphology crucially involves the Causative head of the Faire Infinitive variety in Romance. This head, however, being separate from initP, does not necessarily increase the valency of the predicate. I have surveyed the properties of OOC that it shares with FI Causative, including animacy on the Subject, inherent Case of the argument embedded under Causative, ACC assigning potential, and the same morphology in some languages, all of them collectively pointing towards a common analysis. In the course of the discussion I proposed a typology of constructions involving the reflexive marker analogous to the typology of constructions involving Event Separators (i.e. participial morphology) developed in chapter

4. Thus, the lowest merger of the reflexive- on top of  $\nu_1 P$  - corresponded to the Mediopassive construction. In DRC the reflexive spelled out the sequence starting on top of  $\nu_2 P$ . The same lower bound was argued to be present in Reflexive verbs, except that in this case the NOM layer was available. The Middle was argued to involve a merger of the reflexive clitic on top of  $\nu_4$ , analogously to generic IRC. Finally, in the episodic IRC the reflexive was merged very high - on top of  $\nu_5$  - with the resultant covert pronouns being interpreted as [+participant] (i.e. 1,2 Person). The generic IRC was also argued to correspond to Impersonal -NO/TO. The investigation of the properties of all the particular constructions lead to proposing a unified lexical entry for the reflexive clitic in Polish.

# Chapter 6

# Conclusion

In this dissertation I have argued for the existence of a very fine-grained and elaborate lower verbal functional sequence. I also tried to relate this sequence to the nominal functional hierarchy. The relevant chunk of the  $f_{seq}$  is presented below.



The ROOT was taken as separate from the whole functional sequence and hence having no influence on syntax at all. On the other hand, certain members of the functional vocabulary were assumed to be *lavishly inserted* for subsequences of the universal  $f_{seq}$ . The impact of two types of 'word markers' on the argument structure of predicates was examined.

The first type of markers - so-called **Themes** - was argued to merge directly on top of the ROOT and spell out different sizes of structure. I undertook the case study in Polish verbal morphology, concluding that Themes could be divided into two types: Themelow spelling out subsequence of  $f_{seq}$  until the Transition subevent (i.e.  $VP_{Become}$ ), and Themehigh potentially spelling out the superset of features spelled out by the low Themes, including the whole hierarchy of light verbs. The relevant lexical entries for both are presented in (2).

$$\begin{array}{cccc} \text{(2)} & \text{ a.} & \text{Th}_{low} \colon \left[ \mathbf{R}, \, \mathbf{V}_{Become} \right] \\ & \text{ b.} & \text{Th}_{high} \colon \left[ \mathbf{R}, \, \mathbf{V}_{Become} \text{-} \nu_1 \mathbf{P}, \, \nu_2, \, \nu_3, \, \dots, \, \text{init} \right] \end{array}$$

All of the relevant projections specified in the entries in (2) are in fact optional in one or the other of the following senses: (i) a projection can generally be optional (as e.g. R in unprefixed verbs,  $V_{Become}$  in unergatives or the light verb system in Theme $_{low}$  stems), (ii) a projection can be only optionally spelled out in a given structure - a situation arising when a different lexical item with overlapping specification forces the Theme to up- or down-squeeze. For this reason I omit the brackets employed earlier in the lexical entries. The important point about (2b), however, is a mutual dependence of  $V_{Become}$  and  $\nu_1 P$ . If the lower projection is spelled out, the higher one must also be spelled out.

Substantiation of the claim relating to the typology of Themes came from all sorts of diagnostics, which might traditionally be conceived of as 'split intransitivity' diagnostics. I have argued, however, that in view of the elaborate thematic domain, and given the fact that an argument can acquire multiple  $\Theta$ -roles by moving through verbal functional projections, the notion of 'split intransitivity' should be deconstructed. Instead of thinking about it in terms of 'external' vs 'internal' argument dichotomy, it should rather be conceived of in terms of grades of externality. Depending on which level of structure a particular test diagnoses, it will delineate a potentially different set of verbs than some other tests might pick up (so-called 'unaccusativity mismatches'). Since most of the tests in Polish diagnose the presence or absence of  $\nu$ , they naturally correlate with the two types of Themes. Thus, I examined the interaction of Themes with Impersonal -NO/TO construction and the reflexive marker, concluding that both require the presence of high Themes (i.e. the presence of the light verb system). In the case of -NO/TO this requirement stemmed from the lexical specification of -n/t-, whereas for reflexive-marked verbs it flowed from the semantics of the reflexive marker, i.e. licensing the identification of two  $\Theta$ -roles on one argument. A corollary to this analysis was the necessity to distinguish between 'true unaccusatives' and anticausatives, manifested transparently morphologically in Polish by the low Themes in the former, and the high Themes with the reflexive marker in the latter case. I have also argued that the distinction between high and low Themes has a correlate in the Aspectual domain. Namely, due to the particular semantics of the Polish Secondary Imperfective, only verbs which possess the homogeneous process subevent (located in  $\nu$ ) can form SI - a generalization which derived numerous morphological aberrations. Although 'true unaccusative' Theme<sub>low</sub> stems can derive a process part by S-summing, this transitional process is incompatible with the homogeneity requirement of SI.

Thus, when all other things are equal (i.e. in a simple active sentence) a high Theme will spell out all of the subevents illustrated in (1), and all of them will be assembled into one big macro-event. When other things are not equal, a part of the region of the verbal functional sequence in (1) will be spelled out by the other type of word markers, which I refer to as **Event Separators**. They delimit the domain of one event in the sense that whatever merges on top of them will already belong to a separate event. Similarly to Themes, they are *lavishly inserted* to fill up subsequences of  $f_{seq}$ , but differently from Themes the projections spelled out by ES morphology do not display any thematic features. This is because ES morphology always spells out the default values of the projections. This, in turn, yields the effect of the absence of the relevant projections or ' $f_{seq}$  abortion'.

I have examined one type of such an Event Separating morphology in Polish, i.e. the -n/t- morpheme. The lexical entry arrived at for this morpheme is in (3).

(3) ES 
$$-n/t$$
: [R,  $V_{Become}$ ,  $\nu_1$ ,  $\nu_2$ , ..., init]

The main tenet was that the constant negotiation between the two types of word markers concerning how big a subsequence they will spell out respectively, results in a typology of 'Passives' and nominalizations. The traditional label 'passive' was however restricted to the constructions, where the ES is inserted within the lowest (adjectival) region. Thus, the label might only embrace stative adjectival passive, verbal agreeing Periphrastic Passive, as well as (nonperiphrastic) Mediopassive.

The following spell out negotiation between Polish ES -n/t- and the Theme can take place:

(4) a. 
$$\left[\inf_{\text{initP}} -n/t - \left[\inf_{\text{RP}} \text{Th}\right]\right]$$
 stative adjectival prt/result nominal

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b. [_{\text{initP}} - n/t - [_{\nu_1} \text{ Th }]] eventive prt/agentive nominal c. [_{\text{initP}} - n/t - [_{\nu_3} \text{ Th }]] nominal + \text{ DP}_{GEN}
```

d. 
$$\begin{bmatrix} \text{initP} & -n/t - \begin{bmatrix} \nu_4 & \text{Th} \end{bmatrix} \end{bmatrix}$$
 Impersonal  $-NO/TO$ 

Polish -n/t- seems to be spelling out up until initP, since in neither of the constructions involving this ES do we have detectable traces of a  $\Theta$ -feature on initP. However, this is not a necessity for the ES morphology in other languages. E.g. for languages that have the compound Tense construction (e.g. Macedonian, Germanic, Romance) I have argued that the relevant morphology cannot display init in its lexical specification, and hence the external argument can merge directly in Spec, initP. Furthermore, I suggested that specific regions in the universal  $f_{seq}$  in (1) correspond to traditional category distinctions: adjective and noun:

(5) a. A: 
$$[R, V_{Become}, \nu_1]$$
  
b. N:  $[\nu_2, \nu_3, ..., initP]$ 

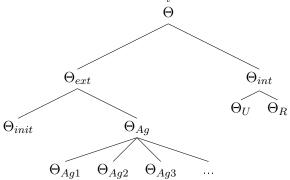
Thus, depending on the point in the  $f_{seq}$  where the spell out takes place, one expects to see either adjectival or nominal paradigm markers. The nominalizations involving ES merging still in the adjectival region (i.e. the result nominal and the nominal with a by-phrase) are due to the presence of the -ie morphology spelling out higher projections in the nominal  $f_{seq}$ . This way of conceiving of category distinctions allows for a collapsed lexical entry for both the 'lexical' as well as 'Auxiliary' use of verbs like  $by\acute{c}$  ('be'),  $zosta\acute{c}$  ('become') in Polish, and HAVE in languages that use the latter also as an Auxiliary. HAVE always takes a nominal complement, whereas BE(COME) takes an adjectival complement. The possibility of a collapsed entry squares nicely with the fact that in Polish even 'Auxiliary' use of BE(COME) has been shown to involve lexical verbs.

Moreover, I have also argued that the hallmarks of particular constructions in question are the syntactic activity, the morphosyntactic shape and semantic restrictions on the external arguments. This was keyed to a particular theory about how nominal  $f_{seq}$  relates to the verbal one. The nominal  $f_{seq}$ was taken to create an implicational hierarchy of features like: animate, human, pronominal, etc.. The external argument was taken to be optionally introduced at the level of verbal  $\nu_1$ P. If the uninterpretable  $\Theta$ -feature was present on this projection, the argument had to check/Agree with this feature and, by hypothesis, with all the higher light verb projections spelled out by the Theme. In this way the argument was 'peeled' of its oblique Case layers by moving to particular verbal functional projections in the course of the derivation. On the other hand, if the relevant thematic feature did not occur on  $\nu_1 P$ , it was also absent on all the remaining light verb projections spelled out by the Theme. Therefore, the argument could only merge directly in Spec, initP. This is the case of a vanilla-flavor active sentence where no semantic restrictions hold of the external argument. Yet, when

the Event Separator traps the external argument in a particular position due to the lack of thematic features on the higher projections, the result is the particular morphosyntactic shape (i.e. a certain level of 'obliqueness'), and a specific semantic feature bundle of the external argument. In other words, a certain degree of structural deficiency of the external argument is conspicuous. Additionally, this lower than normal position in a verbal  $f_{seq}$  might yield all sorts of failures to pass certain Subject diagnostics.

In general then it seems that particular  $\Theta$ -features display mutual dependencies in the sense that might suggest the following hierarchy of thematic features<sup>1</sup>:

#### (6) Thematic feature hierarchy



The subscripting (ext(ernal), int(ernal), and Ag(ent)) might be rather arbitrary, especially if it turns out that the Goal argument of e.g. ditransitive verbs also has the feature relevant for one of the light verb projections. For lack of space I did not include the discussion of Double Object Construction. What is important, however, is the level of distinction. Let us call these levels starting from the highest: f<sub>1</sub>, f<sub>2</sub>, f<sub>3</sub>, f<sub>4</sub> corresponding respectively to the projections in the nominal  $f_{seq}$ :  $F_1$ ,  $F_2$ ,  $F_3$ ,  $F_4$  The presence of two features of the second level (i.e. external vs internal) on one DP in the Numeration always induces the presence of the reflexive clitic in the same Numeration. In other words, the clitic is sensitive to the feature present on the second level. This is a desirable result since we have seen that the presence of the argument in  $\nu_2$  (as in DRC) is enough for the reflexive identification to occur, as opposed to the presence of the argument marked just  $\Theta$  in Spec,  $\nu_1 P$ . No DP would ever require the specification with two internal  $\Theta$ -roles (i.e. UNDERGOER-RESULTEE) since this specification is made redundant by the specification:  $[\Theta_{int}]$ . In general, any specification involving  $\Theta_R$  would be redundant since it will always necessarily involve also  $\Theta_U$ , and hence could be substituted with  $\Theta_{int}$ , be it due to world knowledge or any other fac-

<sup>1</sup> U stands for Undergoer, R for Resultee, Ag for Agent, init for initiator, ext for external, int for internal.

tor. This is different from the specification of two external roles on one DP (i.e. INITIATOR-AGENT), which are essentially independent of each other, and thus not redundant. Finally, any specification involving three  $\Theta$ -roles is made redundant by resorting to a higher level, e.g. the specification:  $[\Theta_{init}, \Theta_{Ag}, \Theta_{int}]$  is made redundandant by  $[\Theta_{ext}, \Theta_{int}]$ . This results in 10 different possibilities a DP can be specified. I present one  $\Theta$ -role specifications in (7), together with examples of each, and two  $\Theta$ -role specifications in (8).

- (7) a.  $[\Theta_{ext}]$ : active transitive or unergative structures where external argument is also volitionally involved
  - b.  $[\Theta_{init}]$ : active transitive structures with non-volitional, often inanimate, external arguments
  - c.  $[\Theta_{int}]$ : transitive lexically prefixed structures with  $VP_{Become}$ , e.g.  $wy\text{-}wr\acute{o}c\text{-}i\text{-}\acute{c}$  (pref-return-TH-inf; 'turn upside-down or inside-out')
  - d.  $[\Theta_{Ag}]$ : transitive or unergative structures without initP, e.g. in Impersonal construction or DRC.
- (8) a.  $[\Theta_{ext}, \Theta_{int}]$ : prefix-induced reflexives with  $V_{Become}$ , e.g. rozprost-owa-ć się (pref-straight-TH-inf refl; 'straighten up')
  - b.  $[\Theta_{ext}, \Theta_U]$ : unprefixed reflexives in active clauses, e.g.  $my\acute{c}$  się ('wash onself')
  - c.  $[\Theta_{init}, \Theta_{int}]$ : anticausatives with lexical prefixes, e.g. za- $bi\acute{c}$   $si\acute{e}$  (pref-beat refl; 'get killed')
  - d.  $[\Theta_{init}, \Theta_U]$ : unprefixed anticausative, e.g. niszcz-y-ć się (destroy-TH-inf refl; 'get destroyed')
  - e.  $[\Theta_{Ag}, \Theta_{int}]$ : prefixed-induced reflexive verbs in init-less structures, e.g. in Impersonal -NO/TO, e.g. za-bi-t-o sie (pref-beat-ES-o refl; 'someone has killed himself')
  - f.  $[\Theta_{Ag}, \Theta_{U}]$ : unprefixed reflexives in init-less structures, e.g. my-t-o sie (wash-prt-o refl; 'someone was washing')

Another issue related to 'peeling' arguments is the availability of objective (i.e. ACC) Case. The frequent 'ACC Case absorption' observed with different sorts of Passives or nominalization under the present assumptions follows from too early 'abortion' of verbal  $f_{seq}$ . The result stemming from the empirical investigations seems to be that ACC Case is available no lower than  $\nu_4$ P. If ES with its default value specification is inserted at or lower than  $\nu_4$ , no ACC on the object can emerge. Thus, out of all the participial constructions examined it was only Impersonal -NO/TO that retained ACC on the object. Although peeling of internal arguments and the way it fits the present architecture is a tightly connected issue, it would require a separate dissertation to do justice to it. Crucially, one sometimes sees the correlation between availability of ACC Case, and the semantic feature bundle of an internal argument. For instance, in standard Finnish, human pronouns retain their ACC Case in the Passive, as opposed to full DPs, which acquire NOM

(cf. Manninen and Nelson (2004)). On the other hand, in certain types of nominalizations in Polish 1,2 Person pronouns are prohibited. That seems suggestive if, as I argued for Impersonal -NO/TO construction, the presence of a human pronominal requires peeling up to a high level, where ACC Case is already available.

This way of conceiving of the emergence of objective Case allows one to do away with the questionable notion of 'Case suppresion' or all sorts of 'defective heads' proposed in various accounts of passives or nominalizations, where there is clear adverbial evidence for the presence of  $\nu$ , but no ACC can be assigned.

Finally, I have also proposed a typology of constructions involving the reflexive marker. This typology was analogous to the typology of participial constructions. In other words, the reflexive marker was argued to be *lavishly inserted* at different levels. However, the reflexive in Polish spells out regions slightly higher than the Event Separator, as shown in (9).

(9) się: 
$$[\nu_2, \nu_3, ..., init, NOM]$$

In comparison with the ES -n/t-, the reflexive clitic does not get inserted immediately on top of the root. Therefore, e.g., it is not involved in any adjectival passive constructions. On the other hand, it can spell out as high as up until the projection responsible for NOM case assignment. The spell out negotiation between the reflexive and the Theme is presented in (10).

(10)	a.	$[_{\mathrm{initP}} \ sie \ [_{\nu_{1}} \mathrm{P} \ \mathrm{Th} \ ]]$	${f Mediopassive}$
	b.	$[\nu_{5\mathrm{P}} \ sie \ [\nu_{1\mathrm{P}} \ \mathrm{Th} \ ]]$	Anticausative
	c.	$[_{\mathrm{NOMP}} \ sie \ [_{ u_{2}\mathrm{P}} \ \mathrm{Th} \ ]]$	DRC
	d.	$[\nu_{5\mathrm{P}} \ sie \ [\nu_{3\mathrm{P}} \ \mathrm{Th} \ ]]$	Reflexive
	e.	$[_{\mathrm{initP}} \ sie \ [_{\nu_4\mathrm{P}} \ \mathrm{Th} \ ]]$	Middle
	f.	$[_{\mathrm{NOMP}} \ sie \ [_{ u_{4}\mathrm{P}} \ \mathrm{Th} \ ]]$	IRC generic
	g.	$[_{\mathrm{NOMP}} \ sie \ [_{ u_5\mathrm{P}} \ \mathrm{Th} \ ]]$	IRC episodic

A further difference between the reflexive clitic and the Event Separating morphology is that the former is not specified for default values of projections it spells out, although, similarly to ES, it does not possess any thematic features in its lexical specification. The comparison of the two types of morphology is presented in (11).

	$\Theta$ -features	value of FP
ES	-	default (i.e)
się	-	+

Table 6.1: Comparison of ES and the reflexive clitic

Due to the fact that the reflexive clitic corresponds to the presence of projections that it spells out, ACC Case is also available in all the constructions displaying the reflexive morpheme. However, as ACC is only optional, in very many of the reflexive constructions it will simply not have a chance to show up, as the sole argument will simply move further along the verbal  $f_{seq}$  to be finally peeled up to the NOM layer. This is the fate of all the constructions involving reflexive identification, where the sole argument moves up to the NOM position, or the constructions where the external argument is frozen in an oblique shape due to unavailability of initP, e.g. in Mediopassive. On the other hand, it is conspicuous that ACC is available in DRC, where the projections responsible for the objective case (i.e.  $\nu_4$  or higher) are clearly spelled out by the reflexive clitic.

On more conclusion stemming from the scenarios in (9) is that the upper boundary of the reflexive can also vary. This must be the side-effect of negotating the spell out options with a higher item, i.e. probably Tense morpheme located mostly in the verbal region of the universal functional sequence.

The advantages of the *lavish insertion* framework include accounting for the polysemous nature of ES morphology and the reflexive morphology without resorting to Underspecification, accounting for the cooccurrence restrictions, as well as the much too frequent zero morphemes without compromising the complexity of the data.

Finally, one potential domain, where the mapping algorithm might also be employed is Ergativity. This is obviously not surprising in view of the fact that Silverstein's 1976 Hierarchy was invented for that purpose. Thus, NP split ergativity might instantiate different levels of  $f_{seg}$  abortion by an event separator, and in this sense be comparable to passives. From this perspective, it seems interesting that many Ergative languages display the same marking of arguments on nouns and on verbs (cf. Johns (1987) for so-called 'nominalist tradition' in Inuit linguistics). Under the present assumptions the verbal stem in these languages would lexicalize a subset of the sequence lexicalized by verbs in NOM/ACC languages (e.g. only up till  $\nu_3$ P). Tense/Aspect split ergativity, on the other hand, might bear some analogy to different lexicalization scenarios as in the reflexive constructions. In that sense the present proposal is in line with ergativity related hypotheses presented in Bok-Bennema (1991) (where ergative languages are in a sense 'unaccusative') or in Nash (1995) (in the form of so-called 'Internal Ergative Subject Hypothesis'). Ergative stems might simply not reach the projection relevant for ACC assignment, which I argued is relatively high in the thematic domain.

It is also my conviction that all sorts of Causatives are analysable in the present architecture. The so-called 'inner' Causatives might correspond to a verbal stem spelling out the subsequence corresponding to the Pol-

ish Theme $_{low}$ , but augmented by an item spelling out the light verb system. Since no Event Separating morphology intervenes in 'inner' Causatives, the result is one-event interpretation. The so-called 'outer' Causatives, on the other hand, involve an Event Separating morphology, which freezes the Causee in a given oblique shape and results in multiple-event interpretation. For lack of space I do not discuss Causatives in this thesis.

# Appendix A

# Conjugation classes and their paradigms

# A.1 I THEME high

## A.1.1 -i- stems

Laskowski's (1999) conjugation II class 7b:  $pros-i-\acute{c}$  ('ask'),  $gub-i-\acute{c}$  ('lose'),  $dziw-i-\acute{c}$  ('surprise'),  $dzwon-i-\acute{c}$  ('ring')

1	prosz-ę	pros-i-my
2	pros-i-sz	$pros ext{-}i ext{-}cie$
3	pros-i	prosz-ą

Table A.1: non-Past Tense

	sg		pl
1m	$pros ext{-}i ext{-}lem$	1vir	pros-i-liśmy
1f	$pros ext{-}i ext{-}lam$	1non-vir	pros-i-łyśmy
$2 \mathrm{m}$	$pros$ - $i$ - $le\acute{s}$	2 vir	$pros$ - $i$ - $li\acute{s}cie$
2f	pros-i-łaś	2non-vir	pros-i-łyście
$3\mathrm{m}$	$pros ext{-}i ext{-}t$	3 vir	pros- $i$ - $li$
3f	$pros ext{-}i ext{-}la$	3non-vir	pros- $i$ - $ly$
3n	$pros ext{-}i ext{-}lo$		

Table A.2: Past Tense

#### A.1.2 -y- stems

Laskowski's (1999) conjugation II class 7a:  $liczy\acute{c}$  ('count'),  $burzy\acute{c}$  ('destroy'),  $kroczy\acute{c}$  ('walk'),  $wierzy\acute{c}$  ('believe')

	sg	pl
1	licz- $e$	licz- $y$ - $my$
2	licz- $y$ - $sz$	licz- $y$ - $cie$
3	licz- $i$	licz- $q$

Table A.3: non-past Tense

	sg		pl
1m	licz- $y$ - $lem$	1vir	licz-y-liśmy
1f	licz- $y$ - $lam$	1non-vir	$licz$ - $y$ - $ly\acute{s}my$
2m	$licz$ - $y$ - $le\acute{s}$	2 vir	licz-y-liście
2f	licz-y-łaś	2non-vir	licz-y-łyście
$3\mathrm{m}$	licz- $y$ - $l$	3 vir	licz- $y$ - $li$
3f	licz- $y$ - $la$	3non-vir	licz- $y$ - $ly$
3n	licz-y-ło		

Table A.4: Past Tense

# A.1.3 -aj- stems

Laskowski's (1999) conjugation III class 8: czytać ('read'), zapraszać ('invite'), roz-palać ('light up',SI), śpiewać ('sing')

	sg	pl
1	$\mathit{czyt} ext{-}a ext{-}m$	czyt-a-my
2	$\mathit{czyt} ext{-}a ext{-}sz$	$\mathit{czyt} ext{-}\mathit{a} ext{-}\mathit{cie}$
3	$\mathit{c}\mathit{zy}\mathit{t} ext{-}\mathit{a}$	czyt-aj-ą

Table A.5: non-Past Tense

	sg		pl
1m	czyt- $a$ - $tem$	1vir	$czyt$ - $a$ - $li\acute{s}my$
1f	czyt- $a$ - $tam$	1non-vir	$czyt$ - $a$ - $ly\acute{s}my$
2m	$czyt$ -a- $le\acute{s}$	2vir	$czyt ext{-}a ext{-}li\acute{s}cie$
2f	$czyt$ -a- $la\acute{s}$	2non-vir	$czyt ext{-}a ext{-}ly\'scie$
$3\mathrm{m}$	czt- $a$ - $t$	3vir	czyt- $a$ - $li$
3f	czyt- $a$ - $ta$	3non-vir	czyt- $a$ - $ty$
3n	czyt- $a$ - $to$		

Table A.6: Past Tense

#### A.1.4 semelfactive -n- stems

Laskowski's (1999) conjugation I class 4a:  $kopnq\acute{c}$  ('kick once'),  $machnq\acute{c}$  ('wave once'),  $krzyknq\acute{c}$  ('shout once'),  $warknq\acute{c}$  ('bark once')

	sg	pl
1	kop- $n$ - $e$	$kop ext{-}n ext{-}iemy$
2	$kop ext{-}n ext{-}iesz$	$kop ext{-}n ext{-}iecie$
3	kop- $n$ - $ie$	kop- $n$ - $q$

Table A.7: non-Past Tense

	$\operatorname{sg}$		pl
1m	kop- $nq$ - $lem$	1vir	kop- $n$ ę- $li$ ś $my$
1f	$kop ext{-}ne ext{-}lam$	1non-vir	$kop ext{-}ne ext{-}ly\acute{s}my$
2m	$kop ext{-}nq ext{-}les$	2vir	$kop ext{-}ne ext{-}li\acute{s}cie$
2f	$kop ext{-}nq ext{-}las$	2non-vir	$kop ext{-}ne ext{-}ly\'scie$
$3\mathrm{m}$	kop- $nq$ - $l$	3vir	$kop ext{-}ne ext{-}li$
3f	$kop ext{-}ne ext{-}la$	3non-vir	$kop ext{-}ne ext{-}ly$
3n	$kop ext{-}ne ext{-}lo$		

Table A.8: Past Tense

# A.2 II THEME $_{low}$

# A.2.1 inchoative -n- stems

Laskowski's (1999) conjugation I class 4b: chudnąć ('get slimmer'), gasnąć ('go out'), marznąć ('freeze')

	sg	pl
1	chud- $n$ - $e$	$\mathit{chud} ext{-}\mathit{n} ext{-}\mathit{iem}\mathit{y}$
2	chud- $n$ - $iesz$	chud- $n$ - $iecie$
3	chud- $n$ - $ie$	chud- $n$ - $q$

Table A.9: non-Past Tense

	sg		pl
1m	$\mathit{chud} ext{-}arnothing  ext{-}\mathit{lem}$	1vir	$chud$ - $\varnothing$ - $li\acute{s}my$
1f	$\mathit{chud} ext{-}arnothing ext{-}\mathit{lam}$	1non-vir	$chud$ -Ø- $ly\acute{s}my$
$2 \mathrm{m}$	$chud$ - $\varnothing$ - $le\acute{s}$	$2 \mathrm{vir}$	$chud$ - $\varnothing$ - $li\acute{s}cie$
2f	$chud$ - $\varnothing$ - $la\acute{s}$	2non-vir	$chud$ -Ø- $ly\acute{s}cie$
$3 \mathrm{m}$	$\mathit{chud} ext{-}arnothing ext{-}\mathit{l}$	$3 \mathrm{vir}$	$chud$ - $\varnothing$ - $li$
3f	$chud$ - $\varnothing$ - $la$	3non-vir	$chud$ - $\varnothing$ - $ly$
3n	$chud$ - $\varnothing$ - $lo$		

Table A.10: Past Tense

# A.2.2 deadjectival -ej- stems

Laskowski's (1999) conjugation I class 3a:  $siwie\acute{c}$  ('grey'),  $mdle\acute{c}$  ('faint'),  $glupie\acute{c}$  ('get stupid'),  $markotnie\acute{c}$  ('get miserable')

	$\operatorname{sg}$	pl
1	siwi- $ej$ - $e$	siwi- $ej$ - $emy$
2	siwi- $ej$ - $esz$	siwi- $ej$ - $ecie$
3	siwi- $ej$ - $e$	siwi- $ej$ - $q$

Table A.11: non-Past Tense

	sg		pl
1m	siwi-a-lem	1vir	$siwi$ - $e$ - $li\acute{s}my$
1f	siwi-a-łam	1non-vir	$siwi$ -a- $ly\acute{s}my$
2m	siwi-a-łeś	2vir	$siwi$ -e- $li\acute{s}cie$
2f	siwi-a-łaś	2non-vir	$siwi$ -a- $ly\acute{s}cie$
$3\mathrm{m}$	siwi-a-ł	3vir	siwi- $e$ - $li$
3f	siwi-a-ła	3non-vir	siwi-a- $ty$
3n	siwi-a-ło		

Table A.12: Past Tense

# A.3 III OTHER THEMES

#### A.3.1 -owa- stems

Laskowski's (1999) conjugation I class 1a: szorować ('scrape'), prasować ('iron'), kupować ('buy'), brakować ('be missing')

	sg	pl
1	szor-uj-ę	szor- $uj$ - $emy$
2	$szor ext{-}uj ext{-}esz$	$szor ext{-}uj ext{-}ecie$
3	szor- $uj$ - $e$	$szor ext{-}uj ext{-}q$

Table A.13: non-Past Tense

	sg		pl
$1 \mathrm{m}$	$szor ext{-}owa ext{-}lem$	1vir	$szor$ - $owa$ - $li\acute{s}my$
1f	$szor ext{-}owa ext{-}lam$	1non-vir	szor-owa-łyśmy
2m	$szor ext{-}owa ext{-}les$	2vir	szor-owa-liście
2f	szor-owa-łaś	2non-vir	szor-owa-łyście
$3\mathrm{m}$	$szor ext{-}owa ext{-} t$	3vir	szor- $owa$ - $li$
3f	$szor ext{-}owa ext{-}la$	3non-vir	szor- $owa$ - $ty$
3n	$szor ext{-}owa ext{-}to$		

Table A.14: Past Tense

# A.3.2 -a- stems

Laskowski's (1999) conjugation I class 2ab:  $pisa\acute{c}$  ('write'),  $kaza\acute{c}$  ('order'),  $rwa\acute{c}$  ('tear'),  $wiqza\acute{c}$  ('bind')

	sg	pl
1	$pisz$ - $\varnothing$ - $e$	$pisz$ - $\varnothing$ - $emy$
2	pisz- $arnothing$ - $esz$	pisz- $arnothing$ - $ecie$
3	$pisz$ - $\varnothing$ - $e$	pisz- $arnothing$ - $q$

Table A.15: non-Past Tense

	sg		pl
1m	pis-a-lem	1vir	$pis$ - $a$ - $li\acute{s}my$
1f	pis- $a$ - $lam$	1non-vir	$pis$ - $a$ - $ly\acute{s}my$
2m	pis-a-łeś	2 vir	$pis$ - $a$ - $li\acute{s}cie$
2f	pis-a-łaś	2non-vir	$pis$ - $a$ - $ly\acute{s}cie$
$3\mathrm{m}$	pis- $a$ - $l$	3 vir	pis- $a$ - $li$
3f	pis- $a$ - $la$	3non-vir	pis- $a$ - $ly$
3n	pis-a-ło		

Table A.16: Past Tense

# A.3.3 -e- stems

Laskowski's (1999) conjugation II class 6: krzyczeć ('shout'), dyszeć ('pant'), leżeć ('lie'), drżeć ('tremble')

	$\operatorname{sg}$	pl
1	$krzycz$ - $\varnothing$ - $e$	$krzycz$ - $\varnothing$ - $ymy$
2	$krzycz$ - $\varnothing$ - $ysz$	$krzycz$ - $\varnothing$ - $ycie$
3	$krzycz$ - $\varnothing$ - $y$	$krzycz$ - $\varnothing$ - $q$

Table A.17: non-Past Tense

	$\operatorname{sg}$		pl
1m	krzycz- $a$ - $lem$	1vir	$krzycz$ - $e$ - $li\acute{s}my$
1f	krzycz- $a$ - $lam$	1non-vir	$krzycz$ - $a$ - $ly\acute{s}my$
$2 \mathrm{m}$	$krzycz$ - $a$ - $le\acute{s}$	2vir	$krzycz$ - $e$ - $li\acute{s}cie$
2f	$krzycz$ - $a$ - $la\acute{s}$	2non-vir	$krzycz$ -a- $ly\acute{s}cie$
$3\mathrm{m}$	krzycz- $a$ - $l$	3vir	krzycz- $e$ - $li$
3f	krzycz- $a$ - $la$	3non-vir	krzycz- $a$ - $ly$
3n	krzycz- $a$ - $lo$		

Table A.18: Past Tense

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