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Constructional effects of involuntary and inanimate Agents: A cross-linguistic study

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door

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As a child, I was intrigued by the Walt Disney movie *Alice in Wonderland*. It was eccentric and utterly confusing, and yet it had a strong pull on me. Much later in life, I discovered an equally fascinating world, both puzzling and surprising, and, even better, one which actually made sense if you looked hard enough. It was my supervisor, Jean-Christophe Verstraete, who introduced me to the wonders of linguistic typology, and I was immediately hooked. He has played a crucial part in the beginning of my career in linguistics, and his involvement and commitment have not faded one single bit throughout this entire PhD project. He read and commented on every text I wrote, and devoted a lot of time and energy to helping me shape this dissertation into what it is now. Thank you, Jean-Christophe.

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During this project, what I have known for a long time has become even more obvious to me. Ruben is a world full of wonders all by himself, and I am happy and thankful for the wonderful life we share.

Contents

Abbreviations

The glosses used in this dissertation conform to the Leipzig Glossing Rules as closely as possible.

1	1st person
2	2nd person
3	3rd person
I–VII	gender classes
ABS	absolutive
ACC	accusative
ADEL	adelative
ADESS	adessive
ADJ	adjective
ADV	adverb(ial)
AGT	agentive
ALL	allative
ANIM	animate
ANTIC	anticausative
ANTIP	antipassive
AOR	aorist
ART	article
ASP	aspectual
ASSERT	assertive
ATTR	attributive
AT	at-essive
AUD	auditory
AUX	auxiliary
A	A argument
CAUS	causative
CAUSL	causal
CLF	classifier
COMPL	completive
CONJ	conjunctive
CONT	continuous
COP	copula
CVB	converb
DAT	dative
DECL	declarative

DEF	definite
DEM	demonstrative
DESID	desiderative
DETR	detransitive
DET	determiner
DIMIN	diminutive
DS	different subject
DUAL	dualis
EMPH	emphatic
ERG	ergative
EVID	direct evidential
EXIS	existential
fERG	focal ergative
FIN	finite
FOC	focal
FORM	formal
FUT	future
F	feminine
GEN	genitive
GTAM	general TAM marker
INAN	inanimate
INC	inceptive
INDF	indefinite
IND	indicative
INF	infinitive
INS	instrumental
INTENS	intensive
INTR	intransitive
INVL	involitive
INV	inverse
IPFV	imperfective
LAT	lative
LNK	linker
LOC	locative
MED	medial deictic aspect
MULT	multiplicative
M	masculine
NEG	negative
NFUT	non-future
NMLZ	nominalizer
NNOM	non-nominative
NOM	nominative
NVIS	non-visual
OBL	oblique
O	O argument
PART	partititive
PASS	passive
PLN	plain form
PL	plural
POSS	possessive
POT	potential
PRF	perfect
PROG	progressive
PROP	proprietive
PRS	present
PST	past
PTCP	participle
PURP	purposive
Q	question marker

REAL	realis	SUB	subject
SBJ	subjunctive	S	S argument
SEQ	sequential	TAG	invariant tag
SG	singular	TMP	co-temporal
SIM	simultaneous	TNS	tense
SPONT	spontaneous	TOP	topic
SS	same subject	TR	transitive
STAT	stative	VM	valency marker
STEM	stem	VOC	vocative

1

Introduction

This dissertation is a cross-linguistic study of the different morphosyntactic devices that can be used when the Agent of a clause is an inanimate entity, or a human being acting involuntarily. Consider the following examples from English, which were retrieved from the British National Corpus (BNC, Davies 2004-).

ENGLISH (BNC)

(1) a. *Benjamin killed the nobleman concerned in a duel with swords in Leicester Fields*
b. *A Count Montgomerie had accidentally killed King Henry II of France in a jousting contest*
c. *A quake in Calcutta killed around 300,000 people in 1737*

These three clauses describe similar events that involve the killing of people, but the Agents who initiate these events have a different status. In (1a), the Agent *Benjamin* is a human being, who acts volitionally: the nobleman is killed on purpose in a duel. In (1b), the Agent *A Count Montgomerie* is also a human being, but one who acts accidentally rather than on purpose. In (1c), finally, the Agent *quake* is not a human being, but a non-living, inanimate entity. In this dissertation, I will distinguish these three types of Agents using the terms 'volitional Agent', 'involuntary Agent' and 'inanimate Agent'. I will show that the presence of an involuntary or inanimate Agent in a clause can trigger specific morphosyntactic phenomena that are not found with standard volitional Agents.

This dissertation will investigate this topic from a typological perspective, using a genetically and areally diverse sample of 200 languages. I will argue that the cross-linguistic range of the phenomena associated with involuntary and inanimate Agents is very wide. In this introduction, I give a short overview of the main classes of phenomena that are discussed in this dissertation.

First, some languages use special case marking when the Agent of a clause is inanimate. Compare the following examples from Jingulu. Example (2a) shows how animate Agents take ergative case marking. As illustrated in example (2b), this ergative marker is replaced with instrumental case marking when the Agent is inanimate. This will be referred to as an A-related phenomenon, because it exclusively pertains to the marking of the Agent participant.

JINGULU (Pensalfini 2003: 151, 189)

(2) a. *Miyi-nginyu-nu nginyiyilirni wardabanmarra*
kill-1DUAL-PST 1DUAL.ERG male.kangaroo
'We two killed a big red roo'

b. *Yarungkurru-**marndi** idija-ju darrangku*
snake.vine-**INS** tie.PRS tree
'The snake-vine is choking the tree'

In addition, clauses with involuntary or inanimate Agents can also differ from clauses with volitional, animate Agents in terms of verbal marking (verb-related phenomena). The following examples from Guugu Yimidhirr, Kannada and Oklahoma Cherokee illustrate this. In the (b) examples, with an involuntary Agent, the verb has a marker that is not used in the (a) examples, where the Agent acts volitionally.

GUUGU YIMIDHIRR (Haviland 1979: 125, 140)

(3) a. *Ngayu gudaa gunda-y*
1SG.NOM dog[ABS] kill-PST
'I killed the dog'

b. *Gunda-**adhi** gudaa ngadhun.ngal*
kill-**ANTIC**.PST dog[ABS] 1SG.ADESS
'I accidentally killed [my] dog'

KANNADA (Schiffman 1983: 83, my glosses)

(4) a. *Raaju aa pustka oodda*
Raju DEM book read.PST
'Raju read that book'

b. *avan doose tind-**biTTa***
3SG pancakes eat-**COMPL**.PST
'He ate up the pancakes (unintentionally)'

OKLAHOMA CHEROKEE
(Montgomery-Anderson 2008: 198, 382)

(5) a. *Kvv-kahthiíya*
1SG>2SG-wait.for.PRS.CONT
'I'm waiting for you'

b. *Kvv-yéets-**tóhthan**-vʔi*
1SG>2SG-wake.COMPL-**INVL**.COMPL-PST
'I accidentally woke you up'

In this dissertation I will show that these examples fall into three groups. Example (3b) from Guugu Yimidhirr is an illustration of what I will call 'anticausative phenomena', where involuntary or inanimate Agents trigger the presence of a verbal marker associated with anticausative voice. Example (4b) from Kannada belongs to a group of 'completive phenomena', which are characterized by the presence of a marker of completive aspect. Example (5b) from Oklahoma Cherokee, finally, illustrates phenomena where clauses with involuntary Agents have a 'dedicated' verbal marker whose use is limited to this context.

When confronted with these data, one could wonder why such a diverse range of phenomena is associated with involuntary and inanimate Agents. I will argue that the phenomena are different because they are linked to the features of animacy and volitionality in different ways. First, I will argue that A-related phenomena are a direct effect of the animacy of the Agent. More specifically, I will explain them on the basis of a semantic mismatch between inanimate referents and the Agent role. A similar argument can be made for dedicated phenomena: they are directly connected to the semantics of volitionality, since they involve a marker that is exclusively associated with this feature. For anticausative and completive

phenomena, by contrast, I will argue that there is no such direct link with the features of animacy and volitionality. Instead, they are associated with a broader semantic category, of which involuntary and inanimate Agents are possible instantiations. Anticausative phenomena, for instance, construe events as happenings that take place in an uncontrolled way, and whose outcome cannot clearly be attributed to a responsible party. Since events instigated by involuntary or inanimate Agents can fall under this category semantically, they can trigger these phenomena, but there is no direct connection. Similarly, completive phenomena are used to construe events as completed against expectations. Again, events instigated by involuntary or inanimate Agents are possible instances of such unexpected events, which is why they can trigger completive marking. This implies that there is no direct connection in this case, either. I will thus argue that the different phenomena outlined above have different motivations.

While the empirical focus of this dissertation is on involuntary and inanimate Agents, the results of my investigation have a number of broader implications for the semantics of events and participants, and for the concept of transitivity. A first implication concerns the semantic status of the features of volitionality and animacy. The terms 'involuntary Agent' and 'inanimate Agent' suggest that they are primarily relevant at the level of Agent semantics (see Kittilä 2005, Næss 2007, Malchukov 2006). The analysis in this dissertation suggests, however, that the feature of volitionality is in fact relevant at the level of the entire event. The phenomena related to this feature pertain to the marking of the verb, as illustrated in examples (3), (4) and (5), and in addition they are best explained by invoking aspects of event semantics such as 'uncontrolledness' or 'unexpectedness'.

Next, there are also implications for the understanding of participant roles. I will discuss what my findings can tell about the nature of Agenthood, and how this is different from what is known about Patienthood. In the literature on this topic, these concepts are often treated as each other's mirror image. Authors such as Næss (2007) and Bossong (2006), for instance, emphasize that the characteristics of Agenthood are the opposite of those associated with Patienthood. The analysis of Agent features in this dissertation, by contrast, will show a number of asymmetries between Agents and Patients that do not fit into this view.

A third implication concerns the relationship between the phenomena outlined above and the concept of transitivity. In existing work, a link between involuntary or inanimate Agents and semantic and morphosyntactic transitivity has been proposed (see e.g. Hopper & Thompson 1980, Malchukov 2006, Næss 2007, Kittilä 2005), but throughout this dissertation I will argue that such an approach has few advantages. An analysis in terms of transitivity cannot predict the actual form taken by the phenomena, and in addition it is not useful in order to uncover their underlying motivations.

This dissertation is structured as follows. Chapter 2 discusses existing work on involuntary and inanimate Agents, presents the terminology to be used, and the sample on which the dissertation is based. Next, chapters 3 and 4 present the data concerning A-related and verb-related phenomena as they emerge from the sample. These data are analyzed functionally in chapter 5, where I argue that different phenomena have different motivations, i.e. that they are linked to involuntary and inanimate Agents in different ways. This analysis is put in a broader perspective in chapter 6, where I argue that my findings can have a number of implications for event semantics, syntactic functions and participant roles. Finally, the conclusions of this dissertation are presented in chapter 7.

2

Preliminaries

Before moving on to the discussion and the analysis of the data, I will provide some general information about terminology, methodology and existing work on the topic of this dissertation. First, section 2.1 gives an overview of the literature about the construal of involuntary and inanimate Agents. Next, section 2.2 discusses the definition of the key concepts that are used in the following chapters. Finally, section 2.3 clarifies two methodological aspects. I discuss how I put together the cross-linguistic sample used in this dissertation, and I explain how I gathered the data that are presented in chapters 3 and 4.

2.1 Existing approaches

In this section, I discuss what existing approaches have to say about involuntary and inanimate Agents. These approaches can be roughly divided in two groups, one that takes the concept of semantic transitivity as a starting point, and one that is based on markedness theory. While these different approaches all offer valuable insights, this dissertation aims to show that none of them can satisfactorily account for the wide range of phenomena associated with involuntary and inanimate Agents.

2.1.1 Approaches based on semantic transitivity

In this section, I discuss existing work that analyzes involuntary and inanimate Agents from the perspective of semantic transitivity. These approaches focus on the participants of transitive clauses in terms of the way they are involved in the event. Broadly speaking, they assume that clauses high in semantic transitivity have a volitional, animate Agent. When this is not the case, the semantic transitivity of the clause is reduced, and it is expected that this leads to a reduction in morphosyntactic transitivity as well.

One of the earliest and most influential studies on transitivity is Hopper & Thompson (1980). They define events high in semantic transitivity as events where an action is effectively transferred from one participant to another. They list a number of parameters that contribute to the effectiveness of this transfer (see table 2.1).

		Transitivity	
	Parameter	High	Low
A.	Participants	2 or more	1
B.	Kinesis	action	non-action
C.	Aspect	telic	atelic
D.	Punctuality	punctual	non-punctual
E.	Volitionality	volitional	non-volitional
F.	Affirmation	affirmative	negative
G.	Mode	realis	irrealis
H.	Agency	A high in potency	A low in potency
I.	Affectedness of O	O totally affected	O not affected
J.	Individuation of O	O highly individuated	O non-individuated

Table 2.1: Hopper & Thompson's (1980: 252) transitivity parameters

Note that, in this table, A refers to participants similar to 'man' in example (6), while O refers to participants similar to 'snake'.

SHEKO (Hellenthal 2010: 259)

(6) *Há=ʂóóʂ-n-ʂ-ara yááb-m̀-s dufu-t=á wuʂ-ǹ*
3.M.SG=snake-DEF-M-ACC man-DEF-M hit-SS=3.M.SG kill-DS
'The man hit the snake and killed it; ...'

The parameters in this table allow for a comparison between the degrees of transitivity manifested by different types of events. A clause such as (7a), for instance, is much higher in semantic transitivity than (7b) because it displays more properties that are characteristic of high transitivity (Hopper & Thompson 1980: 253).

ENGLISH (Hopper & Thompson 1980: 253)

(7) a. *Jerry knocked Sam down*
b. *Jerry likes beer*

The differences between (7a) and (7b) are indicated in the following table.

		Transitivity	
	Parameter	(7a)	(7b)
B.	Kinesis	action	non-action
C.	Aspect	telic	atelic
D.	Punctuality	punctual	non-punctual
I.	Affectedness of O	high	none
J.	Individuation of O	high	low

Table 2.2: Differences in semantic transitivity between (7a) and (7b)

The parameters that are most relevant to the phenomena discussed in this dissertation are volitionality and agency. According to the parameter of volitionality, clauses are higher in semantic transitivity if they portray an event in which the A is involved volitionally. The parameter of agency is explained less clearly in Hopper & Thompson (1980), but they appear to suggest that clauses high in semantic transitivity typically have an A who is human, or at least animate (p. 252). Summing up, these parameters imply that involuntary and inanimate Agents are associated with lower semantic transitivity. This can be illustrated using the following examples from my sample. In Hopper & Thompson's (1980) view, (8b) is lower in semantic transitivity than (8a) because the A is inanimate. Similarly, (8c) is lower in semantic transitivity than (8a) because the A does not act volitionally.

SQUAMESH (Jacobs 2011: 1, 3)

(8) a. *Chen kw'lh-at-Ø ta tiy*
1SG.NOM pour-TR-3O DET tea
'I poured the tea (on purpose)' *volitional Agent*

b. *Na k̲ép'-nexw-Ø-as ta spahím' ta shewálh*
REAL shut-COMPL-3.O-3A DET wind DET door
'The wind shut the door' *inanimate Agent*

c. *Chen kw'lh-at-Ø ta tiy*
1SG.NOM pour-COMPL-3O DET tea
'I spilt the tea (accidentally)' *involuntary Agent*

According to Hopper & Thompson (1980), this difference in semantic transitivity can have an impact on the encoding of clauses, as they argue that low semantic transitivity correlates with low morphosyntactic transitivity. This notion of morphosyntactic transitivity is not strictly defined in their work, but mainly pertains to case marking and verbal marking. A clause shows reduced morphosyntactic transitivity when it exhibits case marking that is generally not used with clauses that are high in semantic transitivity, or when it has detransitive verbal marking, which can be used to transform two-participant clauses into one-participant ones. In principle, Hopper & Thompson's approach thus predicts that clauses like (8b) and (8c) show non-standard case marking or detransitive verbal marking in at least some languages. However, they do not present a detailed account of the specific phenomena that are connected to inanimate and involuntary Agents.

More recently, this question has received more attention in work by e.g. Malchukov (2006), Næss (2007) and Kittilä (2005). Their contributions depart from the assumption that involuntary and inanimate Agents are connected to reduced semantic and morphosyntactic transitivity, in the tradition of Hopper & Thompson (1980), but they differ from each other in a number of aspects. First, Malchukov (2006) argues that Hopper & Thompson's (1980) transitivity parameters typically have an effect on the encoding of the element to which they pertain (this is what he calls the 'relevance principle'). Aspect and affirmation, for instance, are expected to be marked on the verb, as these features are related to verbal semantics. Since animacy and volitionality are regarded as features that are related

to Agents, he predicts that they correlate with Agent marking. This can be illustrated using an example from my sample. The clause in (9a), from Nêlêmwa, shows that inanimate Agents are marked using the inanimate ergative preposition *ru*. As illustrated in (9b), however, animate Agents are marked with a different ergative preposition *a*. This implies that inanimate Agents take a special case marker that is not used with animate ones.

NÊLÊMWA (Bril 1994: 379)

(9) a. *Doi-na ru cacia*
sting.1SG.O ERG.INAN acacia
'The acacia stung me' *inanimate Agent*

b. *I tûûlî pwaxi eli a Kaavo*
3SG.F dry child DEM ERG.ANIM Kaavo
'Kaavo is drying the child' *animate Agent*

Malchukov (2006) thus argues that involuntary and inanimate Agents are similar in that they both correlate with Agent marking, but it should be stressed that he treats animacy and volitionality as distinct parameters.

A similar approach is adopted by Næss (2007: 93–96). She argues that inanimate and involuntary Agents are likely to receive the same morphosyntactic treatment. Like Malchukov (2006), she also expects them to receive special case marking that is not used with human volitional Agents. However, her approach differs from Malchukov's (2006) in that animacy and volitionality are not considered as fully independent parameters. She argues that involuntary and inanimate Agents form one single category that comprises all Agent participants that are not volitionally involved in the action they carry out. Put differently, there is no distinction between entities incapable of volition (inanimate Agents) and entities that only act involuntarily in certain contexts (involuntary Agents).

Finally, Kittilä's (2005) ideas also differ from Malchukov's (2006) and Næss's (2007) in a number of aspects. First, he argues that inanimate and involuntary Agents are distinct and unlikely to receive the same morphosyntactic treatment. The reason for this is that lack of volitionality is more remarkable for human Agents than it is for inanimate Agents. Since inanimates are not capable of volitional action in the first place, their lack of volitionality is nothing out of the ordinary. Human Agents,

by contrast, are generally expected to act volitionally. When a human Agent acts involuntarily, this expectation is not fulfilled, which leads to a more marked situation. When it comes to the actual morphosyntactic phenomena linked to involuntary and inanimate Agents, Kittilä (2005) focuses on involuntary Agents only. Like Næss (2007) and Malchukov (2006) he argues that they can have an effect on case marking. However, he also shows that there is an additional type of phenomenon connected to involuntary Agents, namely the use of detransitivizing morphology on the verb (see also Verstraete 2007). This is illustrated in the following examples from Yidiny. The verb in (10a) has the detransitivizing marker *-ːɖi* because the Agent acts involuntarily. This marker is not present in (10b), where the Agent acts volitionally.

YIDINY (Dixon 1977: 275, 277)

(10) a. *Buɲa waguɖa-ŋgu gunda-ːɖi-ɲu baŋgaːl-da*
woman[ABS] man-ERG cut-ANTIC-PST axe-INS
'The man cut the woman accidentally with his axe'
involuntary Agent

b. *Waguːɖa dungu buɲa-ːŋ ɖina-ː baʈa-ːl*
man[ABS] head[ABS] woman-ERG foot-INS strike-PST
'The woman kicked the man's head' *volitional Agent*

What I propose in this dissertation shows both similarities with and differences from the approaches discussed above. Concerning the relationship between inanimate and involuntary Agents, I will reconcile both Næss's (2007) and Kittilä's (2005) views. I will argue that they are different in nature, but that their presence can have a similar effect on the way an event is construed. As a result, some morphosyntactic phenomena apply to inanimate Agents only, while others are associated with both involuntary and inanimate Agents. With respect to the nature of the morphosyntactic phenomena involved, I will show that inanimate Agents can be associated with deviant case marking, as Næss (2007) and Malchukov (2006) argue, but only in a quite limited number of languages (section 3.1.2). For involuntary Agents, by contrast, I will argue that a similar phenomenon is not reliably attested (section 3.1.3). Furthermore, I will show that involuntary Agents can trigger the use of detransitivizing morphology, as Kittilä (2005) argues (section 4.1), but that this morphology should be characterized as

anticausative, and not just as detransitivizing in general. In addition, the phenomenon is not just limited to involuntary Agents, but can occur with inanimate Agents as well. Finally, my approach further differs from each of those discussed above in two important aspects. On the one hand, I will argue that there are a number of phenomena connected to involuntary and/or inanimate Agents that are not related to morphosyntactic transitivity at all (sections 3.2, 3.3, 4.2 and 4.3). On the other hand, I will argue that an approach in terms of reduced semantic transitivity is too general to precisely account for the different phenomena I will discuss. Instead, I will show that each phenomenon has its own specific motivation.

2.1.2 Approaches based on markedness theory

In this section, I discuss approaches that rely on a concept of 'markedness' (in the tradition of e.g. Jakobson (1939)). The main assumption here is that it is marked, i.e. a deviation from the standard situation, for A participants to be inanimate. It should be noted that volitionality is generally not discussed in these approaches.

The first important contribution in this context is Silverstein (1976). He proposed a hierarchy that expresses the 'semantic naturalness' (p. 113) for different types of participants to occur as A or O (see figure 2.1).

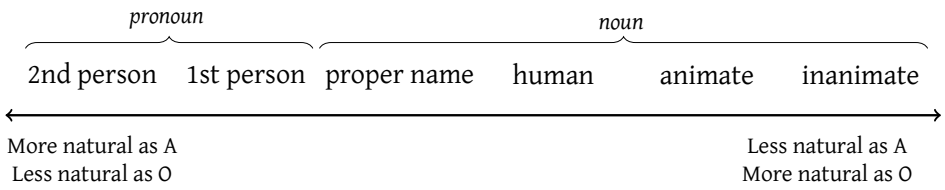

Figure 2.1: The Silverstein (1976) Hierarchy

The lower a participant is on this hierarchy, the more 'natural' or unmarked it is in O function, but the more marked it is in A function, and vice versa. This markedness shows a correlation with case marking. The more marked a participant is, the more likely it is to receive overt case marking. Silverstein (1976) argues that this allows us to make predictions about the case marking system of different languages. If a language does

not use overt ergative case marking for all types of A participants, its range will always cover the entire area below a certain point of the hierarchy, because this is the area that is most marked for A. Conversely, if a language does not use accusative marking consistently, its range will extend over the area above a certain point, because this is the area that is most marked for O. This is illustrated in the following figure.

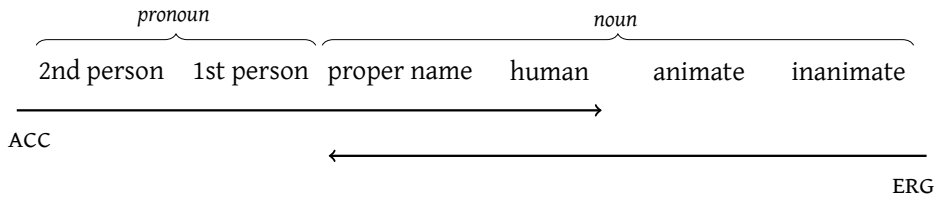

Figure 2.2: The Silverstein (1976) Hierarchy: predictions concerning case marking

The actual cut-off point for overt case marking varies from language to language, but the principle of the hierarchy is always followed. An example from my sample is Yidiny, where the cut-off point for both ergative and accusative marking is situated between nouns and pronouns (Dixon 1977). As a result, all participants below this point, i.e. all nouns, have overt ergative marking when in A function, while all pronouns, situated above this point, are zero-marked. The opposite holds for accusative marking. This is illustrated in the following table.

	Pronouns	Nouns
A	Ø	ERG
O	ACC	Ø

Table 2.3: Case marking split in Yidiny (Dixon 1977)

Since inanimates occupy the lowest position in the hierarchy, they are the most likely to receive overt ergative marking when in A function. As a result, it could be expected that at least some languages have their cut-off point for ergative marking between animates and inanimates, which

results in a case system where ergative marking is limited to inanimates only. Silverstein's (1976) approach thus predicts, at least in principle, that there are languages where inanimate A participants receive ergative marking, while animate ones are zero-marked.

The ideas presented in Silverstein (1976) recur in much subsequent work on this topic. Comrie (1979, 1989 [1981]), for instance, also argues that animate O participants are more marked than inanimate ones and that conversely, inanimate A participants are more marked than animate ones. He attributes this markedness to frequency: objects are most often inanimate, while subjects are most often animate. Deviations from this pattern are 'unnatural' (Comrie 1989 [1981]: 129), and more likely to give rise to overt case marking. Comrie thus predicts a cross-linguistic phenomenon of 'differential' O marking, where animate Os have overt case while inanimate ones are left unmarked (DOM, see Bossong (1985) for an early in-depth survey), as well as a phenomenon of differential A marking (here labeled as DAM), where inanimate As have overt case while animate ones are left unmarked. An example of the first phenomenon (DOM) is found in the following examples from Hindi (Mohanan 1994).

HINDI (Mohanan 1994: 80)

(11) *Ilaa-ne bacce-ko uṭʰaayaa*
Ila-ERG child-ACC lift.PRF
'Ila lifted a/the child' *animate O*

(12) *Ilaa-ne haar-Ø uṭʰaayaa*
Ila-ERG necklace-Ø lift.PRF
'Ila lifted a/the necklace' *inanimate O*

Comrie (1979, 1989 [1981]) suggests that these DOM and DAM phenomena are ultimately based on the 'discriminatory' function of case marking. In this view, overt case marking serves to distinguish the A argument from the O argument in transitive clauses. As a result, it is more likely to occur in cases where this is most needed, i.e. in cases of ambiguity. Such ambiguity arises when an A is inanimate or when an O is inanimate, since these are atypical combinations.

Even though this is not directly linked to the topic of this dissertation, I would like to point out that, in Comrie's work, animacy is not the only

parameter involved in DOM and DAM. The other parameter is definiteness: he argues that O arguments are typically indefinite, while A arguments are typically definite. As a result, he expects that definite O arguments are more likely than indefinite ones to take overt case marking (definiteness-DOM), while the opposite holds for A arguments (definiteness-DAM) (Comrie 1989 [1981]: 127–130). This parameter of definiteness can interact with animacy within one single case system. This is the case, for instance, in Hindi. As illustrated above, Hindi has accusative marking for animate Os, but zero marking for inanimate ones. However, inanimate Os can optionally take accusative case when they are definite, as in example (13).

HINDI (Mohanan 1994: 80)

(13) *Ilaa-ne haar-ACC uṭʰaayaa*
Ila-ERG necklace-ACC lift.PRF
'Ila lifted the necklace' *definite inanimate O*

In the last decades, DOM phenomena as described above have received a lot of attention in linguistic typology (see e.g. Bossong 1985, Croft 1988, Aissen 2003, Næss 2004, de Swart 2007, Iemmolo 2010, 2011, Dalrymple & Nikolaeva 2011). In comparison, the corresponding phenomenon for A, namely DAM, is much less well-studied. Where DAM is mentioned in the literature, it is very often assumed that this phenomenon is the mirror image of DOM in every aspect. Aissen (2003), for instance, follows Comrie (1989 [1981]) in predicting a cross-linguistic phenomenon where inanimate (and/or indefinite) A participants are overtly case-marked, while their animate (and/or definite) counterparts are left unmarked (see Woolford (2008) for a similar but slightly different approach). However, a broad empirical cross-linguistic survey of this prediction has not been undertaken so far.

One of the few cross-linguistic studies that focus on DAM is Malchukov (2008). He combines the markedness approach discussed above with aspects of the transitivity approaches. More specifically, he argues that there are two different functions of case marking that have an opposite effect on A case marking. First, the discriminatory function serves to distinguish A from O in cases of ambiguity, and results in the overt marking of inanimate As as opposed to animate ones (see above). The second function of case marking that Malchukov (2008) takes into account is more semantic: case

is used in order to signal the semantic role of a given participant, i.e. the way it is involved in the event (see also section 2.1.1; this is the 'indexing' function of case, see e.g. Moravcsik (1978a)). From this perspective, he argues, ergative case is used to mark those A participants that exhibit a sufficiently high degree of Agenthood. This is measured in terms of the semantic features associated with Agents, such as volitionality. Inanimate A participants, however, are inherently incapable of volition, which implies that their degree of Agenthood is quite low. As a result, they are less likely to be ergative-marked than their animate counterparts, because they are less Agent-like. Malchukov (2008: 210) argues that these two functions of case marking are competing motivations, which results in cross-linguistic variety in DAM phenomena. Languages where the discriminatory function is more important restrict ergative marking to inanimate Agents, while languages where the indexing function is more important restrict the ergative to more agentive, animate ones. A similar position is adopted by, for instance, de Hoop & de Swart (2008).

In certain respects, the ideas presented in this dissertation are somewhat similar to what has been proposed in the 'markedness approaches' discussed above. In section 5.1 I will argue that it is atypical for inanimates to be construed as A arguments, which is reminiscent of the idea that inanimate As are marked. However, an important difference between my approach and those discussed here is that I propose a specific semantic basis to back up my claim. In addition, my approach is also different because it is based on an investigation of DAM phenomena in a large cross-linguistic sample. On this basis, I will argue that DAM is much less common than could be expected from accounts like Comrie's (1989 [1981]) and Aissen's (2003), and I will examine why this is the case. A final and important difference between my ideas and the markedness approaches concerns the relationship between A and O. As mentioned above, a number of scholars have argued A and O are typically associated with opposite features. In chapter 6 I will argue that such a 'mirror image' view on A and O is misguided because it ignores a number of fundamental asymmetries between these two concepts.

2.2 Terminology and definition of key concepts

As illustrated in the previous section, there are a lot of different terms that are used in the existing literature on involuntary and inanimate Agents. In this section, I would like to clarify which terms I will use in this dissertation, and how they are defined. In what follows, most attention will be devoted to semantic roles (Agent and Patient, section 2.2.2) as well as syntactic functions (A and O, section 2.2.3). First, however, I will discuss how semantic roles and syntactic functions differ from each other.

2.2.1 Syntactic functions versus semantic roles

When discussing the participants of a clause like *Benjamin killed the nobleman*, one can talk about the morphosyntactic encoding of the participants, or about the role they play in the event portrayed by the verb. For analytical purposes it is useful to keep these two levels apart. In this dissertation I use the term 'syntactic functions' to refer to the morphosyntactic level, and 'semantic roles' to refer to the semantic level (see Andrews (2007) and Næss (2007) for a similar approach). Syntactic functions are categories that are defined by morphosyntactic coding and behavior, whereas semantic roles are categories that are defined by semantic features pertaining to the way a participant is involved in an event. The distinction between semantic roles and syntactic functions is illustrated in the following examples from Kayardild (Evans 1995).

KAYARDILD (Evans 1995: 348)

(14) a. *Dathin-a kulkiji baa-ju ngumban-ju*
DEM-NOM shark[NOM] bite-POT 2SG-PROP
'That shark will bite you'

b. *Nying-ka ba-yii-ju dathin-kiiwa-thu kulkiji-iwa-thu*
2SG-NOM bite-PASS-POT DEM-ALL-POT shark-ALL-POT
'You will be bitten by that shark'

Examples (14a) and (14b) describe a similar event, namely a man being bitten by a shark. In both cases, the participant 'shark' fulfills the same semantic role in the event. It initiates the act of biting, and this way

affects another participant. The syntactic encoding of this participant, by contrast, is different in both examples: in (14a) it is nominative-marked, and in (14b) it is allative-marked. As a result, these participants are not encoded in the same syntactic function. In what follows I will use the terms 'A' and 'O' to indicate the syntactic functions associated with transitive clauses, and 'Agent' and 'Patient' for semantic roles.

It should be noted that the distinction between the morphosyntactic and the semantic level is not absolute. The two levels are in fact linked to each other. A change in semantics can entail a change in encoding, and, vice versa, morphosyntactic devices can be used to signal semantic differences. Furthermore, in prototypical cases, the semantic function of A and the semantic role of Agent naturally coincide in one participant, and the same holds for O and Patient. As a result, A and O and Agent and Patient are in a sense defined in terms of each other. This will become clear in the next sections.

2.2.2 Semantic roles: Agents and Patients

In this dissertation, the terms 'Agent' and 'Patient' are used to indicate the clusters of semantic features that characterize the way participants are involved in prototypical transitive actions. A typical transitive action is defined here as an action that is effectively transferred from one participant to another participant, as the result of physical contact (see, for instance, Hopper & Thompson (1980); a similar definition is provided by Langacker (1990)). Verbs representing such actions are typically affect verbs with meanings such as 'kill', 'crush', 'grind', 'cut', 'wash', 'tear' (in its transitive sense) or 'break' (in its transitive sense). These are "primary transitive verbs" in terms of Andrews (1985); see also Tsunoda (1985) and Haspelmath (2011). A clause with such a typical transitive verb is given in (15). This example describes a situation where an action of killing is transferred from the first person singular toward crocodiles.

DIME (Seyoum 2008: 43)

(15) *ʔaté* *guur-af-is-im* *deis-it*
1SG.SUB crocodile-PL-DEF-ACC kill-PRF-1
'I killed the crocodiles'

The typical semantics associated with these verbs can be visualized using Langacker's (1990) representation, which is given in figure 2.3 (see also Talmy 1988, Croft 1991). In this figure, the circles represent the two participants involved in a transitive event. The arrow connecting these participants symbolizes the transfer of the action. The smaller arrow in the rightmost circle indicates that the participant is affected by the action.

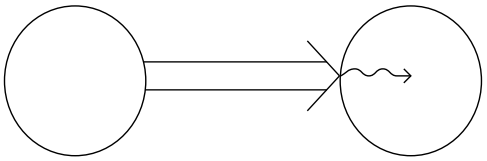

Figure 2.3: Prototypical transitive events as visualized by Langacker (1990: 211)

My definition of Agenthood will be based on the features associated with the leftmost participant in this figure, while for Patienthood this will be the features of the rightmost participant. This implies that these semantic roles are not defined in isolation, but in terms of the transitive event structure. In this respect my approach is similar to what has been proposed by e.g. Talmy (1988), DeLancey (1991) and Croft (1991, forthcoming). Before discussing the features that describe how Agents and Patients are involved in transitive events, I would like to make two further comments about how I approach these roles.

First, I want to point out that I use the terms Agent and Patient as comparative concepts in the sense of Haspelmath (2010). I do not approach these semantic roles as universal, innate cognitive categories (see e.g. Fillmore 1968: 24), but as concepts whose primary purpose is to serve as a basis for cross-linguistic generalizations. This implies that my definitions of these roles do not try to capture the 'true' nature of Agents and Patients as universal cognitive categories. Rather, their aim is to provide a universally applicable means to demarcate types of participants about which meaningful generalizations can be made. In this sense, defining semantic roles is a starting point for the comparison of different languages, and not a goal in itself. This does not imply, of course, that the nature of

the definitions does not matter, since their relevance can be measured in terms of the generalizations they allow. A suitable definition of Agenthood should, for instance, demarcate a group of participants that tend to behave in the same way within different languages. This can be illustrated using an extreme example from Næss (2007: 34). A feature such as 'more than forty years old' is not a relevant Agent-feature, since it does not allow for any interesting generalizations: there is no language where this feature is known to have an effect on the linguistic behavior of Agent participants.

Second, it should be noted that there are different opinions on the status of semantic roles. As DeLancey (1991: 350) puts it, they can be interpreted as a matter of objective facts, or in terms of construal. In work by Fillmore (1968) and Van Valin & LaPolla (1997), for instance, semantic roles are assigned independently of linguistic context. They are a matter of the way a participant is 'objectively' involved in a certain state of affairs. As a result, the role a participant plays in a given event is constant, irrespective of the linguistic representation. This can be illustrated using the following examples.

ENGLISH (Fillmore 1968: 25)

(16) a. *John opened the door with the key*
b. *The key opened the door*

In Fillmore's (1968: 24–25) view, the participant 'key' is an instance of an Instrument in both examples. The rationale behind this is that extra-linguistic knowledge tells us that 'key' must be involved in the event described in (16b) in the same way as it is in example (16a). Keys only open doors when they are manipulated by a human, so they are always characterized as Instruments. In contrast, a very different conception of semantic roles is present in work by, for instance, DeLancey (1991). He argues that semantic roles are a matter of construal, and cannot be assigned on the basis of an objective description of a certain state of affairs (p. 350, see also e.g. Schlesinger 1989, Langacker 1991). This implies that the role a participant is seen to play in a given event can vary depending on the linguistic representation. This is illustrated in the following examples.

ENGLISH (DeLancey 1991: 348, 350)

(17) a. *The assassin killed his victim with poison*

b. *The assassin's poison killed its victim*

In Fillmore's (1968) analysis, the participant 'poison' would be an Instrument in both examples. DeLancey (1991), by contrast, argues that it is an Instrument in (17a), but an Agent in (17b), since it is not construed as being externally manipulated in this example. It is this view on semantic roles that will be adopted in this dissertation.

2.2.2.1 Agenthood

In the existing literature there is much disagreement on the definition of Agenthood. In the following paragraphs I discuss a number of features that are often invoked, namely 'instigation', 'transmission', 'volitionality' and 'animacy'. I will conclude that a broad definition of Agent that takes only the first two features into account will be most useful as a basis for this study.

Instigation The feature that is perhaps most widely recognized as characterizing Agents is 'instigation' (see e.g. Fillmore 1968, Jackendoff 1987, Givón 1984, Comrie 1989 [1981], Croft 1991, Langacker 1990, Næss 2007). Agents are participants who are represented as initiating an action. They are the principal source of energy in the event, i.e. they 'set things in motion' metaphorically speaking. In figure 2.3, repeated below as 2.4, this is apparent from the fact that the energy flow departs from the Agent participant.

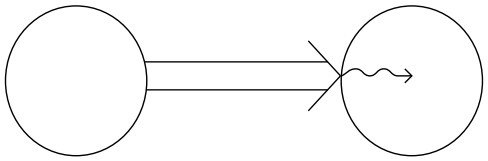

Figure 2.4: Prototypical transitive events as visualized by Langacker (1990: 211)

When considered in isolation, this feature of instigation is not exclusively associated with Agents in two-participant events. In certain one-participant events, the sole participant can also be construed as initiating

an action of some sort. This is illustrated in the following examples. In (18a), which is a two-participant clause, the third person plural pronoun 'they' is an instigator because they initiated the act of breaking. Similarly, in (18b), which is a one-participant clause, 'Adama' is an instigator because he instigates the act of jumping.

JALONKE (Lüpke 2005: 195, 147)

(18) a. *E fɛnɛter-na wuru*
3PL window-DEF break
'They broke the window'

b. *Adama tugan-ma*
Adama jump-IPFV
'Adama is jumping'

Transmission Agents differ from instigators in one-participant clauses in one important aspect. They do not only instigate an action, but they also transfer it toward another participant (see e.g. Hopper & Thompson 1980, Talmy 1988, Croft 1991). This is visualized in figure 2.3 by the big arrow, which indicates that the action goes in a particular direction. For this feature I will use the label 'transmission'. This corresponds to what Langacker (1990: 238) describes as 'directing an action outwards', or what McGregor (1997, 1999: 98) describes as being engaged in 'directed action'. It is also roughly comparable to what Jackendoff (1987) and Van Valin & LaPolla (1997) denote using the label 'cause', and to Dowty's (1991) feature 'causing an event or change of state in another participant'. It should be noted that this feature invokes the involvement of another participant in a very basic sense. It does not necessarily imply that Agents deliberately target their actions at a consciously selected Patient. These elements resort under the feature of volitionality.

Volitionality In the existing literature, Agents are often characterized as participants who act volitionally, i.e. they carry out actions willfully and purposefully (see e.g. Jackendoff 1987, Givón 1984, Langacker 1990, Croft 1991, Dowty 1991, Næss 2007). Volitionality is not always included among the Agent features, however. Fillmore (1968) does not mention volitionality, and Cruse (1973) distinguishes volitionality from agency. Furthermore, there are also authors who explicitly question the relevance

of volitionality for the Agent role. According to DeLancey (1991: 344), for instance, the feature of volitionality is "bulky semantic baggage", which cannot be directly deduced from the transitive event structure. As a result, he argues that this feature should be abandoned in favor of a "broader and simpler conception of Agent". The idea that volitionality is a derived rather than a primary Agent feature is also found in work by Van Valin & Wilkins (1996). They argue that Agents lacking volitionality do not tend to behave differently from those that do not. In many types of transitive constructions the Agent can be pragmatically understood as acting volitionally, but this is seldom an absolute requirement. On this basis they conclude that volitionality does not play a significant role at a basic semantic level. Likewise, Tsunoda (1985) argues that volitionality is not relevant for participant encoding cross-linguistically, and Andrews (2007) takes a similar position.

In this dissertation, I follow these authors in not including volitionality among the Agent features. The reasons for this are twofold. First, this dissertation examines precisely what the role of volitionality is cross-linguistically, so including this feature a priori is not very desirable. Using a more basic definition of the Agent role is a more neutral approach. Second, I will show that the data collected from my sample do not suggest that the feature of volitionality has an important impact on the cross-linguistic behavior of Agent participants. This will be argued in detail throughout the next chapters.

Animacy Another feature that is sometimes associated with Agents is animacy. According to Fillmore (1968), Agents are typically animate, and according to Dowty (1991) they are typically sentient. This feature is not very often explicitly associated with Agents, however. In this dissertation I do not include animacy among the core Agent features. The reasons for this are similar to those I offered for not including volitionality. First, this dissertation examines the role of animacy in the encoding of Agent participants, and as a result I do not want to exclude inanimates from the Agent role a priori. Second, I will show that the data collected from my sample suggest that the feature of animacy can be relevant because of interactions with the features of instigation and transmission, but not in itself. Again, this will be discussed in detail throughout the next chapters.

2.2.2.2 Patienthood

For Patienthood, the range of semantic features that have been proposed is less wide. The two features that recur most often are 'endpoint' and 'affectedness'.

Endpoint In the existing literature, Patients have been characterized as endpoints, i.e. participants to which the action described by the verb is directed. The term 'endpoint' has been used by Croft (1991, 2001), but a similar feature is also found in other work. It corresponds to descriptions where Patients are characterized as participants 'which the verb describes as having something happen to it' (Andrews 2007: 137), which are 'the target for externally-initiated activity' (Langacker 1990: 238) or which are 'acted on' (Frawley 1992: 212). It is also roughly comparable to Dowty's (1991) proto-Patient entailment of being 'causally affected by another participant'. In figure 2.3, this feature is visualized by positioning the Patient participant at the end of the action flow from Agent to Patient.

Affectedness The semantic feature that is most often associated with the Patient role is 'affectedness'. A Patient is a participant which is affected, i.e. which undergoes a change of state or condition as a result of the action described by the verb (see e.g. Fillmore 1968, Hopper & Thompson 1980, Jackendoff 1987, Tsunoda 1985, Levin & Rappaport Hovav 2005, Næss 2004, 2007). Thus, this feature corresponds to what has been called 'change of state' by e.g. Dowty (1991) (see also Primus 1999, Comrie 1989 [1981], Langacker 1990, Van Valin & LaPolla 1997).

As has often been noted, affectedness is a gradable notion (see e.g. Næss 2007, Beavers 2011). The effect of an action can vary from minimal to very big, and as a result participants can be affected to various degrees. This is illustrated by the following examples from English.

English (BNC)

(19) a. *On Aug. 6 an explosion completely destroyed the Israel Military Industries munitions plant at Nof Yan, north of Tel Aviv*
b. *In 1908, an earthquake almost completely destroyed Messina, Sicily*
c. *The accident partially demolished the Post Office shop and two houses in Sowerby Bridge, West Yorkshire*

In (19a), the Patient participant is completely affected by the action of the verb. As a result, it has a high degree of affectedness. The Patient participant in (19b), by contrast, has a somewhat lower degree of affectedness, since the Patient is not fully affected. In (19c), finally, the degree of affectedness is still lower, since the Patient is only partially affected.

In this section I have explained my approach to the semantic roles of Agent and Patient. In the next section, I contrast these with the concepts of A and O, which are primarily syntactic in nature.

2.2.3 Syntactic functions: A and O

Since Dixon (1972, 1979), it has been common practice to refer to the two arguments associated with transitive verbs as 'A' and 'O'. These concepts are syntactic in nature because they are about the encoding of participants and other types of morphosyntactic behavior, and not about semantic features. This is why I will refer to them as 'syntactic functions'. It is generally agreed that, in a clause with a prototypical transitive verb such as (20), the argument 'Xabier' is in A function and the argument 'dog' is in O function.

BASQUE (Hualde & Ortiz de Urbina 2003: 384)

(20) *Xabierrek zakurra garbitu du*
Xabier.ERG dog wash AUX.TR
'Xabier washed the dog'

However, there is a lot of variation in the way different authors define A and O (see Haspelmath 2011). For the purposes of this dissertation, I adopt a definition that is largely based on Comrie (1989 [1981]) (see also Andrews 1985, 2007, Haspelmath 2011). I use the concepts 'A' and 'O' to refer to all arguments that show the same morphosyntactic behavior as those referring to the Agent and Patient of prototypical transitive verbs. Put differently, the construction associated with these verbs is the point of reference on the basis of which A and O are defined. For Basque, this implies that any construction with two participants coded in exactly the same way as in (20) is considered a construction with an A argument and an O argument. This is the case, for instance, for the following clause.

BASQUE (Hualde & Ortiz de Urbina 2003: 519)

(21) *Jonek Miren ikusi du*
Jon.ERG Miren see AUX.TR
'Jon saw Miren'

In this example, 'Jon' and 'Miren' are A and O because they are coded in the same way as 'Xabier' and 'dog' in (20): ergative marking for 'Jon' and no marking for 'Miren'. Constructions like these, which have an A and an O argument, will be referred to in this dissertation as morphosyntactically transitive (see also Haspelmath 2011). Another example of such a construction is found in (22). Like in (21), the participants 'sheep' and 'voice' are A and O because they are encoded in the same way as the participants in (20).

BASQUE (Hualde & Ortiz de Urbina 2003: 624)

(22) *Ene ardiek ene boza entzuten dute*
1SG.POSS sheep.PL.ERG 1SG.POSS voice hear.IPFV AUX
'My sheep hear my voice'

In Basque, then, the participants of the verbs 'see' and 'hear' are construed in the same way as those of prototypical transitive verbs, and hence qualify as A and O arguments. This implies that the construction used with these verbs is morphosyntactically transitive. Of course, this is not necessarily the case in every language. In Hinuq, for instance, the range of verbs that take an A and an O argument is more limited. This is illustrated in the following examples.

HINUQ (Forker 2010: 440–441)

(23) a. *Baru-y ɣ'ʷadi b-uher-no*
wife-ERG crow[III] III-kill-PST
'The wife killed the crow'

b. *B-ike-s-me diž duniyal*
III-see-PST-NEG 1SG.DAT earth[III]
'I did not see the earth'

c. *Debez žo toqqo?*
2SG.DAT thing hear.PRS
'Do you hear something?'

Since (23a) expresses a prototypical transitive action, the syntactic functions of A and O are defined on the basis of this clause. Unlike in Basque, clauses with the verbs 'hear' and 'see', such as (23b) and (23c), do not mark their participants in the same way as in (23a). As a result, these constructions do not have an A and an O argument, and do not qualify as morphosyntactically transitive. From this perspective, the scope of A and O can vary from language to language.

This approach allows us to define A and O in a consistent way across different languages. However, there are three issues that deserve some further discussion. First of all, A and O are defined on the basis of the construction associated with prototypical transitive verbs. Of course, languages often have not just one, but several different constructions that can be used with these verbs. As shown above, Kayardild can use an active construction, as in (14a), or a passive construction, as in (14b). As illustrated in the following examples, Yidiny has an alternation between active constructions, as in (24a) and antipassive constructions, as in (24b).

YIDINY (Dixon 1977: 174, my glosses)

(24) a. *Waguḏa-ŋgu buɲa giba:l*
man-ERG woman[ABS] scratch.PST
'The man scratched the woman' *active*

b. *Waguḏa giba-:ḏi-ɲu buɲa-:nda*
man[ABS] scratch-ANTIP-PST woman-DAT
'The man scratched the woman' *antipassive*

In these cases, the construction that is least constrained in terms of formal marking, distribution and semantics is used as the point of reference for the definition of A and O. In Yidiny, this would be the active construction, since the antipassive construction is characterized by an additional marker on the verb and is much less common than its active counterpart (Dixon 1977). For Kayardild this would also be the active construction, and not the passive, for similar reasons.

Second, I would like to point out that this definition of A and O does not entail that they are always realized in exactly the same way within a specific language (Haspelmath 2011). In many languages, so-called 'splits' can occur, where A or O can take different types of marking depending

on e.g. tense, aspect or the type of NP (Silverstein 1976, DeLancey 1981). Compare for instance example (24a) with (25).

YIDINY (Dixon 1977: 274)

(25) *ŋayu ɲuniɲ giba:l*
1SG.NOM 2SG.ACC scratch.PST
'I scratched you'

In this example, which contains two pronouns, the Agent participant is marked using the nominative case, and the Patient using the accusative. In (24a), which contains two nouns, the Agent is in the ergative and the Patient is in the absolutive. This is not just the case in these two clauses, but it is a recurring difference between nouns and pronouns (Dixon 1977: 167–168). As a result, Yidiny has a split system in that O is accusative-marked for nouns, but absolutive-marked for nouns, while A is ergative-marked for nouns, but nominative-marked for pronouns (see also table 2.3 in section 2.1.2). This variation in the functions of A and O is not problematic because it is predictable and consistent across all verbs.

Third, it should be noted that it is not an arbitrary choice to take constructions with a prototypical transitive verb as the point of reference for A and O. As argued by Lazard (2002: 152), these constructions very often lie at the basis of a more general two-participant construction, which is not limited to prototypical transitive verbs, but can also be used with, for instance, experiencer or location verbs. Put differently, constructions with a prototypical transitive verb can be considered as prototypical two-participant constructions cross-linguistically (see also Andrews (1985), Haspelmath (2011: 547–548)). Furthermore, it has also been argued that the actions expressed by prototypical transitive verbs are basic in a cognitive sense (see e.g. work by Talmy (1988) and Croft (1991)).

So far, I have explained how the terms Agent, Patient, A and O are used in this dissertation. However, these are not the only concepts that are in need of further clarification. In the next section I discuss a number of other terms that often recur in the following chapters.

2.2.4 Other terms

In this section, I discuss a number of other terms that are frequently used in this dissertation.

S Apart from A and O, I distinguish a third type of syntactic function, namely S. My definition for this term is based on Andrews (1985): an argument is in S function when it is coded in the same way as the single argument of a one-participant verb is generally coded.

Events and actions In this dissertation I use the term 'event' as a cover term for different types of dynamic states of affairs. Unlike Van Valin (2005: 83), I do not limit events to a certain type of Aktionsart. The term 'action' on the other hand, is used as a more specific term to indicate those events where an instigator is involved. As argued in 2.2.2.1, instigators are participants who initiate the event they are involved in.

Ergative, accusative, absolutive and nominative cases In this dissertation, I make a distinction between four cases that can mark the syntactic functions of A, S and O. First, the nominative, often marked as zero (see however König 2007), is a case that marks both A and S. Its counterpart, the absolutive, is also most often marked as zero, but is used for both O and S. The ergative, by contrast, is a typically overt case which primarily marks A arguments, but is generally not used for S. Similarly, the accusative is an overt case associated with O and which does not generally mark S. Note that this definition does not imply that ergative and accusative markers are never found in one-participant clauses (see e.g. McGregor 2007); it only states that they do not occur in the majority of such clauses.

I would also like to point out that I use the label 'agentive' as an umbrella term for oblique cases encoding Agent (or Agent-like) participants that are not in A function. An example is, for instance, the English preposition *by*, which is used to encode the Agent in passive constructions. Another example is the Maltese proposition *minn*, 'from', which is used in the following passive construction.

MALTESE (Borg & Azzopardi-Alexander 1997: 146)

(26) *Pietru nqatel minn zijuh stess*
Peter PASS.kill.3SG AGT uncle.3SG.POSS EMPH
'Peter was killed by his own uncle'

2.3 Data and methods

In this section I discuss two aspects of the way data was collected for this dissertation. First, I provide more information about the sample on which my cross-linguistic research is based (section 2.3.1). Next, I go on to explain how I collected data on involuntary and inanimate Agents from this sample (section 2.3.2).

2.3.1 The sample

For this dissertation I used a sample of 200 languages. The full list of languages is included in appendix A. This sample is roughly comparable to the 200-language sample discussed in the World Atlas of Language Structures Online (WALS) (Comrie et al. 2011). In terms of the parameters of sampling discussed by Bakker (2010), it has aspects of both a variety sample and a convenience sample.

The sample can be characterized as a variety sample because I tried to maximize the amount of potential variation (see Rijkhoff et al. 1993, Rijkhoff & Bakker 1998). The goal of this dissertation is to examine cross-linguistic diversity in phenomena associated with involuntary and inanimate Agents. In order to achieve this goal I compiled a sample that is genetically diverse. I tried to ensure this diversity by including languages from as many distinct, unrelated language families as possible. Furthermore, I also tried to cover the linguistic diversity present within certain language families, by including languages from different subgroups or genera.[1] To avoid overrepresentation of certain genera, each genus is in principle represented by only one language, with a few exceptions (see

[1] I use the terms 'family' and 'genus' to refer to highest-level and lower-level genealogical units as established in WALS (Dryer & Haspelmath 2011). For reasons that are discussed below, I did not use a specific method (such as proposed by Rijkhoff & Bakker 1998) to select genera in a systematic way.

below). The division of languages in different families and genera is based on the classification used in WALS (Dryer & Haspelmath 2011), except for those languages not included there (in such cases the classification is based on the information presented in the grammar). While this classification may be problematic in some respects, it is adopted here because it is more conservative and more up-to-date than, for instance, the often-used classification proposed by Ruhlen (1991) or the one used in the Ethnologue (Lewis 2009). According to the WALS classification, my sample represents 97 language families and 189 genera. These language families are listed in table 2.4 below, along with the number of genera included for each of them. Apart from genetic diversity, I also tried to ensure areal diversity as much as possible. As can be seen on the map in figure 2.5, the sample includes languages from different continents, countries and areas. However, I am aware that there are a number of gaps, such as the eastern and southern part of South America, southern Africa, and the southern part of Australia. Also, a number of smaller language families are not included in the sample.

Afro-Asiatic (8)
Ainu (1)
Algic (1)
Altaic (3)
Arauan (1)
Araucanian (1)
Arawakan (1)
Australian (9)
Austro-Asiatic (6)
Austronesian (11)
Aymaran (1)
Barbacoan (1)
Basque (1)
Border (1)
Bosavi (1)
Burushaski (1)
Caddoan (1)
Cariban (1)
Cahuapanan (1)
Chapacura-Wanham (1)
Chibchan (2)
Choco (1)
Chukotko-Kamchatkan (1)
Dravidian (1)
East Bird's Head (1)
Eskimo-Aleut (1)
Guaicuruan (1)
Haida (1)
Hmong-Mien (1)
Hokan (3)
Indo-European (6)
Iroquoian (2)
Japanese (1)
Jivaroan (1)
Kadugli (1)
Kartvelian (1)
Karok (1)
Keresan (1)
Khoisan (2)
Kiowa-Tanoan (1)
Korean (1)
Kuot (1)
Kusunda (1)
Kwaza (1)

Lower Sepik-Ramu (1)
Macro-Ge (1)
Matacoan (1)
Mayan (1)
Misumalpan (1)
Mixe-Zoque (1)
Mosetenan (1)
Movima (1)
Muskogean (1)
Mura (1)
Nadahup (1)
Na-Dene (1)
Nakh-Daghestanian (3)
Nambikuaran (1)
Niger-Congo (10)
Nilo-Saharan (8)
Nivkh (1)
Northwest Caucasian (1)
other (1)
Oksapmin (1)
Oto-Manguean (4)
Panoan (1)
Peba-Yaguan (1)
Penutian (3)
Puinave (1)
Quechuan (1)
Salishan (2)
Senagi (1)
Sepik (2)
Sino-Tibetan (8)
Siouan (1)
Solomons East Papuan (2)
Tacanan (1)
Tai-Kadai (1)
Teberan-Pawaian (1)
Timor-Alor-Pantar (2)
Totonacan (1)
Trans-New Guinea (7)
Trumai (1)
Tucanoan (1)
Tupian (3)
Uralic (2)
Urarina (1)
Uto-Aztecan (5)
Wakashan (1)
Wappo-Yukian (1)
Warao (1)
West Papuan (2)
Yanomam (1)
Yeniseian (1)
Yuchi (1)
Yukaghir (1)
Yuracare (1)

Table 2.4: Families in the sample according to WALS, with number of genera included for each family

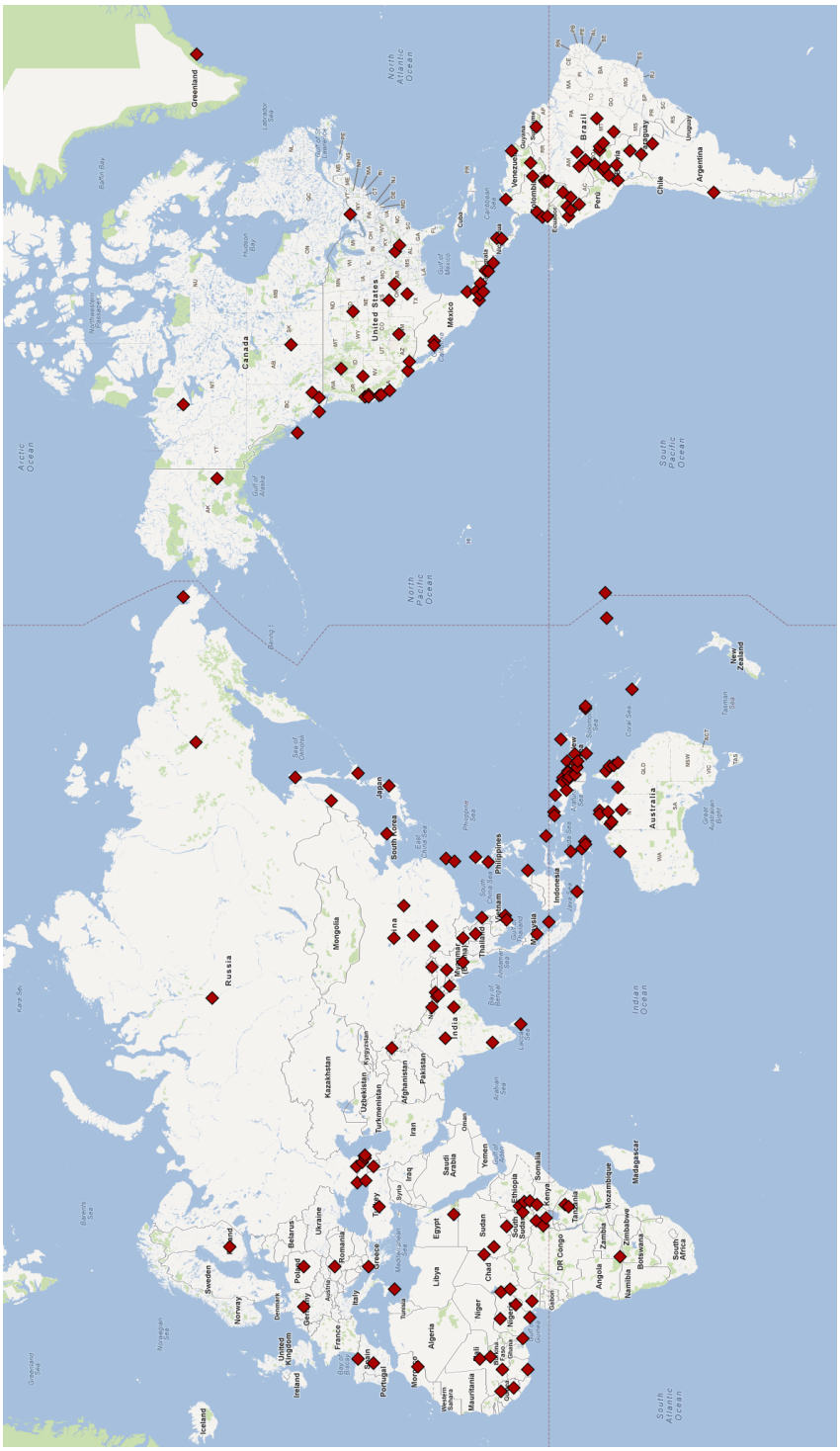

Figure 2.5: Areal diversity in the sample. © 2012 Google, Map data © 2012 Maplink, Tele Atlas

The sample also has characteristics of a convenience sample because languages were not picked at random. First of all, I only included languages for which there are reasonably detailed descriptions available, which are not more than 50 years old. I am aware that this introduces a so-called bibliographic bias, but this bias is justified because older grammars and sketch grammars are unlikely to contain specific information about the encoding of inanimate and involuntary Agents. Second, the sample also shows an important bias towards the phenomena that are studied in this dissertation. I made sure to include languages which are mentioned in the existing typological literature on involuntary and inanimate Agents. Moreover, where possible, I included languages for which there is explicit information on involuntary and inanimate Agents. As a result, some well-described languages are not included in my sample. For example, the Yuman genus of the Hokan family is represented in the WALS sample by Maricopa, for which there is a good description available (Gordon 1986). Another obvious choice would be Jamul Tiipay, for which there is a reference grammar in the Mouton Grammar Library series (Miller 2001). In my sample, however, the Yuman genus is represented by Quechan instead of Maricopa or Jamul Tiipay, because there is explicit information about the encoding of involuntary Agents in this language. I should also mention that I decided to represent certain genera by more than one language, but only in cases where different languages from one genus exhibit different phenomena associated with involuntary and inanimate Agents. As a result, this does not lead to an overrepresentation of certain phenomena.

2.3.2 Data collection and scope

In order to collect the data discussed in chapters 3 and 4, I tried to find information on inanimate and involuntary Agents for each language of the sample. More specifically, I compared them with their animate and volitional counterparts and checked whether they had an effect on some aspect of clause structure. Since this is potentially very broad, I would like to clarify the scope of my research by indicating how I approach the concepts of Agenthood, animacy and volitionality.

For Agenthood, I use the definition discussed in section 2.2.2.1: an Agent is a participant who instigates an action and transfers it towards another participant. This implies that the scope of this dissertation is

limited to the role of animacy and volitionality in two-participant events. So-called 'active–stative' or 'fluid-S' phenomena (see e.g. Mithun 1991), which are limited to intransitive clauses, fall outside this scope (see also Donohue & Wichmann (2008) on semantic alignment). The difference between clauses such as (27a) and (27b), for instance, is not considered in this dissertation.

HINDI (de Hoop & Narasimhan 2008: 67)

(27) a. *Raam=ne chiikh-aa*
Raam=ERG scream-PRF.SG.M
'Raam screamed [purposefully]'

b. *Raam-Ø chiikh-aa*
Raam=NOM scream-PRF.SG.M
'Raam screamed' [impulsively]

The definition of Agenthood adopted in this dissertation has an additional consequence for the scope of this study. As this concept is defined in terms of two-participant events that involve some physical action, it cannot be straightforwardly translated to experiencer events, which refer to sensations, mental activities and the like (Haspelmath 2011). Because of this, phenomena that are restricted to experiencer contexts are not considered in this dissertation. I will limit the discussion to actions that are not too far away from the transitive prototype. This implies that constructions like the ones found in examples (28) and (29) are not discussed in the following chapters.

UMPITHAMU (Verstraete 2011: 277)

(28) *Aatyarra-mpal atha-n=athuna*
cramp-ERG bite-PST=1SG.GEN
'I had a cramp' [lit. 'Cramp bit me']

INGUSH (Nichols 2011: 728)

(29) *Cynagh xanna kinashjkaazh dagadoagha suona*
3SG.LAT be.PTCP book.PL remember.AUX.PRS 1SG.DAT
'I remember books about him'

This restrictive approach is justified because experiencer events are semantically rather different from physical actions (see e.g. Næss 2007: ch. 8).

As a result, it is likely that the role played by the features of animacy and volitionality is different in those cases.

Next, I would like to clarify what I understand by involuntary and inanimate Agents. First, the concept of animacy is in need of clarification, since this is not just a simple matter of living versus non-living. There are different types of entities that can be considered inanimate because they are neither human nor animal: organizations (e.g. the European Union, the NATO), countries, machines (e.g. cars, computers), supernatural or mythical beings, abstract concepts (e.g. curiosity, hunger), forces of nature (e.g. floods, lightning, storms), and physical objects (e.g. stones, arrows, trees) are some of the subcategories that can be distinguished (see also Yamamoto 1999). In this dissertation, I limit the scope of inanimate Agents to natural forces and physical objects because I do not have sufficient data on the other types of inanimates. The same holds for non-human animates, such as mammals, reptiles or insects. I define forces as entities that are not man-made (in contrast with machines), and that have an internal source of energy (e.g. fire, earthquakes, wind or rain). As a result, they have the ability to move independently, without human intervention. Because of this I will label these forces as 'motive' inanimates, based on Van Valin & Wilkins (1996). An example of such a motive inanimate in the Agent role is given in (30).

YURAKARÉ (van Gijn 2006: 336)

(30) *Ta-meme=w* *ta-meme-shama=w* *ayma=ja* *ma-che-Ø*
1PL-mother=PL 1PL-mother-PST=PL fire=EMPH 3PL.Ø-eat-3SG.A
'The fire burned our parents'

Physical objects, on the other hand, are concrete, inert entities without an internal source of energy, that do not have the ability to move without being externally manipulated (e.g. knives, doors, sticks,...). Because of this I will label them as 'non-motive' inanimates. Such non-motive inanimates can be construed as Agents when they are not presented as being manipulated by a human Agent, as in example (31) (see also the discussion above in 2.2.2).

YIMAS (Foley 1991: 205)

(31) *Naŋkm p-ŋa-kra-t*
grass.VII.SG VII.SG.A-1SG.O-cut-PRF
'The grass cut me'

The distinction between motive and non-motive inanimates is not just a theoretical consideration. As will be shown in chapter 3, certain phenomena do not apply to inanimate Agents in general, but are specifically limited to non-motive ones. In this context, it should also be noted that the scope of this dissertation is limited to phenomena that are connected to the animacy of the Agent itself. Phenomena that depend on the difference in animacy between Agent and Patient fall outside this scope, which implies that, for instance, direct–inverse systems are not considered (see e.g. Zúñiga 2006).

Finally, I regard Agents as acting involuntarily when their involvement in an event is completely non-deliberate. This implies that involuntary Agents instigate the action expressed by the verb against their will, and that they do not intend to affect a Patient participant by it. This is illustrated in the following example, where the involuntary Agent 'girl' did not want to instigate the action of breaking, and also not intended to transfer it towards the Patient 'cup'.

HINUQ (Forker 2010: 460)

(32) *Ked-qo zok'i r-uhe-iš*
girl-AT cup[V] V-die-PST
'The girl accidentally broke the cup'

As pointed out by Kittilä (2005), this type of involuntary Agents should be distinguished from Agents whose involvement in an event is volitional, but who accidentally target their actions towards the wrong Patient (e.g. a car mechanic accidentally fixing the wrong car). This type of Agent is not considered in chapters 3 and 4 because I do not have sufficient data on them (but see section 6.1 for a discussion on the difference with 'true' involuntary Agents). Furthermore, I would also like to point out that I only discuss involuntary Agents when their presence has a morphosyntactic effect, and not when it is indicated by lexical means, e.g. adverbs like *accidentally* or *inadvertently*.

In this chapter, I have discussed existing work on involuntary and inanimate Agents and I have explained the terminology used in this dissertation. I have also provided information about the composition of my cross-linguistic sample, and about the way data were collected from it. These data are discussed in the following two chapters. Chapter 3 focuses on phenomena that relate to the marking of the A argument, while 4 focuses on phenomena relating to the marking of the verb. Next, these data are analyzed in chapter 5.

3

A-related phenomena

In this chapter, I discuss how involuntary and inanimate Agents can have an influence on the marking of the A argument. These A-related phenomena are divided in two groups. The first group, discussed in section 3.1, relates to Differential A Marking (DAM), where inanimate and involuntary Agents in A function are not marked in the same way as their animate, volitional counterparts. I will show that such a phenomenon is relatively rare for inanimate Agents, in spite of what the literature on the markedness of A and O participants leads us to expect. This is even more so for involuntary Agents. The second group, discussed in section 3.2, consists of an A-related phenomenon that has so far received very little attention in the existing literature: non-prototypical Agents are incompatible with the A function in a number of languages. Put differently, in some languages inanimate or involuntary participants cannot be construed as A arguments. I show that such a phenomenon is quite frequent for inanimate Agents, but much less so for involuntary Agents. Finally, I also discuss a third group of phenomena in section 3.3, which are less directly related to the marking of the A argument.

3.1 Differential A Marking

In this section, I discuss Differential A Marking (DAM) governed by the features of animacy and volitionality. As mentioned in the previous chapter (section 2.1), such a phenomenon has been predicted in the existing

literature, more specifically as a parallel to the often-studied phenomenon of Differential O Marking (DOM). In this section, I show that animacy-related DAM exists, but is much less frequent than expected. Furthermore, I argue that volitionality-related DAM is even rarer, to the point that there are no unequivocal attestations. Before going on to the discussion of animacy-DAM (section 3.1.2) and volitionality-DAM (section 3.1.3), it is necessary to clarify what exactly is understood as DAM. This is discussed in section 3.1.1.

3.1.1 Definition of DAM

I define DAM as a phenomenon whereby participants in A function can be marked in different ways. In the types of DAM discussed in this dissertation, the difference in marking depends on the semantic features of the participant in A function, namely animacy and volitionality. When a language shows animacy-related DAM, inanimate A arguments take special case marking that is not used with animate A arguments. The same holds for volitionality-related DAM. In many existing approaches (e.g. Comrie 1989 [1981], Aissen 2003), the term 'differential case marking' is mainly used for alternations between zero and overt marking. In this dissertation, alternations between two different overt markers are considered as well, to avoid a too narrow scope.

Note that this definition clearly states that the differentially marked participants both have to be in A function. This implies that the alternation between the two case markers has to be available in constructions that are otherwise regularly transitive, i.e. constructions with a regular transitive verb and a regularly marked O. Otherwise we are not dealing with differential marking within one syntactic category, but with two separate categories with distinct syntactic status. This implies that the following structures are not regarded as examples of DAM.

Warihío (Armendáriz 2005: 60)

(33) a. *Maniwíri tehpúna-re kuú tapaná*
Manuel cut-PRF tree yesterday
'Manuel cut the tree yesterday'

b. *Kuú tehpuna-ré-tu tapaná Maniwíri-e*
tree cut-PRF-PASS yesterday Manuel-INS
'The tree was cut yesterday by Manuel'

These examples both have an Agent and a Patient participant. In (33a), the Agent 'Manuel' is zero-marked, while in (33b) it is instrumental-marked. This is not an instance of DAM, however, since these clauses differ in more aspects than just case marking. Unlike in (33a), in (33b) the verb is detransitivized using the passive marker *-tu*. As a result, the instrumental-marked participant cannot be considered an A argument (see section 2.2.3), so the label DAM does not apply.

In principle, differential marking can relate to both case marking and agreement marking. In my sample, however, there is little to no evidence for agreement-related DAM, so the discussion in the next sections focuses exclusively on case-related DAM.

3.1.2 DAM governed by animacy

In this section I discuss DAM governed by animacy (animacy-DAM). First, I show that DAM exclusively governed by animacy is relatively uncommon (section 3.1.2.1). Second, I show that there are attestations of DAM where animacy is one, but not the only factor involved in DAM. The other factor usually is a discourse-related principle of focus (section 3.1.2.2). Third, I discuss languages where DAM is a matter of focus, but not of animacy, and I show that such a phenomenon is less rare (section 3.1.2.3). Although focus-DAM is not directly related to animacy or volitionality, it is still relevant in the context of this dissertation, because I will argue in chapter 5 that both focus-DAM and animacy-DAM have a similar underlying motivation. A number of the phenomena presented in this section are also discussed in Fauconnier (2011a).

3.1.2.1 DAM exclusively governed by animacy

The first phenomenon discussed in this section is DAM that is exclusively governed by animacy. As pointed out above, this type of DAM is not very common. In my sample, there are only six unequivocal attestations, which are found in the languages Jingulu, Kavalan, Samoan, Kuku Yalanji, Nêlêmwa and Tsakhur. In Jingulu (Australia, Australian),[1] for instance, animate As are ergative-marked, whereas inanimate As are instrumental-

[1] When discussing individual languages, I add the country or region and the WALS family in brackets.

marked (Pensalfini 2003: 189–191). Example (34a) shows that the ergative case is used with animate Agents, and examples (34b) and (34c) illustrate the use of the instrumental for inanimate Agents. Note that the inanimate participants in these last two examples are clearly in A function, because they are cross-referenced on the verb. Furthermore, it is clear from the context that they cannot be interpreted as Instruments manipulated by an unexpressed human A. A further piece of evidence is the fact that demonstratives modifying inanimate As take regular ergative case marking, as in example (34d).

JINGULU (Pensalfini 2003: 178, 189)

(34) a. *Babi-rni ikiya-rnarna-nu ibilkini*
older.brother-ERG wet-3SG>1SG-PST water
'My brother wet me'

b. *Darrangku-warndi maya-ngarna-nu*
tree-INS hit-3SG>1SG-PST
'A tree hit me [contextually: 'I ran into a tree']'

c. *Ngarrini-rni lilirni jujum-arndi maya-ø-nu*
1SG-GEN aunt lightning-INS hit-3SG>3SG-PST
'Lightning struck my aunt'

d. *Wukalu ngilma-ju nginda-rni-ni buba-arndi*
smoke make-do DEM-ERG-FOC fire-INS
'This fire is giving off [making] smoke'

A similar situation is found in Kavalan (Taiwan, Austronesian) and in Samoan (Pacific, Austronesian): animate As take ergative case marking, while inanimate As take instrumental case marking (Liao 2002, 2004: 234, Mosel & Hovdhaugen 1992: 424ff). Samoan differs from Jingulu, however, in that inanimate As can optionally take ergative instead of instrumental case marking. Another language with a similar DAM phenomenon is Kuku Yalanji (Australia, Australian). In this language, human As are ergative-marked, whereas non-motive inanimate As are instrumental-marked. Motive inanimates and animals receive either ergative or instrumental marking when in A function (Patz 2002: 124–131).[2]

[2]Patz (2002) labels the case used with non-motive inanimate As as "neutral ergative", whereas the case used with human As is labeled as "potent ergative". Since the neutral

A slightly different DAM phenomenon is found in Nêlêmwa (Pacific, Austronesian) and Tsakhur (Caucasus, Nakh-Daghestanian).[3] These languages have two separate ergative markers, one for animate and one for inanimate As (Bril 1994, 2002, Schulze 1997: 57–58, 30). Unlike in Jingulu and the other languages cited above, the marker used with inanimate As does not have any other oblique functions. Below are two examples from Nêlêmwa. In (35a) the animate A is marked with the animate ergative preposition *a*, while the inanimate A in (35b) is marked with the inanimate ergative preposition *ru*.

NÊLÊMWA (Bril 2002: 158, 136)

(35) a. *Kio i khuxi a Pwayili*
NEG 3SG eat.TR ERG.ANIM Pwayili
'Pwayili didn't eat it'

b. *Taxa daan ru wi*
dig road ERG.INAN water
'The water made holes in the road'

In the existing literature, two other languages from the sample have been claimed to exhibit animacy-DAM, namely Mangarayi (Australia, Australian) and Lakhota (United States, Siouan). According to the definition offered in section 3.1.1, however, the phenomena in question do not qualify as DAM. Mangarayi has been cited by Malchukov (2008: 206–207) as an example of a system where only inanimate As take ergative case marking, whereas animate As have nominative marking (based on Merlan 1982). In fact, however, the 'ergative' and the 'nominative' case are formally fully identical to each other (Merlan 1982: 57). This is illustrated by the following examples. In (36a), the animate A is marked with *ṇa-*, and this marker is also used with the inanimate A in (36b).

MANGARAYI (Merlan 1982: 61)

(36) a. *Ṇa-baḍa ŋan-ga-ŋiñ*
ERG-father 3SG>1SG-take-PST
'My father took me'

ergative marker is fully identical to the instrumental marker, I treat the contrast in case marking as one between instrumental and ergative marking.

[3]This was also pointed out by Kittilä (2002: 375).

b. *Ṇa-ŋugu ñim ŋan-ga-ŋiñ*
ERG-water submerge 3SG>1SG-AUX-PST
'Water covered/submerged me'

In these examples, I glossed the marker *ṇa-* twice as ERG because it is consistently used with all A arguments, inanimate or animate. The only reason why Merlan (1982: 61) labels *ṇa-* in (36a) as 'masculine nominative' is a paradigmatic one: the marker is not only used with all masculine A arguments, but also with most masculine S arguments. This label does not imply, however, that the marker is different from the one used for inanimate As. As a result, it is not possible to label this as animacy-DAM.

Another language that has been claimed to show animacy-DAM is Lakhota. Aissen (2003: 473) cites Lakhota as a language where animate As are zero-marked, and inanimate As are instrumental-marked. While inanimate participants can be instrumental-marked in Lakhota, as in example (37), such participants are never construed as Agents, but rather as Instruments manipulated by an animate Agent, in this case a third singular one. The Instrument is construed as a syntactic adjunct, and the animate Agent is construed as the A argument of the clause. This is not immediately obvious in structures like (37), however, since third singular As are cross-referenced on the verb by a zero morpheme. Speakers insist that this animate A, although zero-marked, is definitely present in the clause structure (Van Valin p.c., Pustet p.c., Van Valin 1985).

LAKHOTA (Van Valin 1985: 367)

(37) *Ix'é ki hená ų hokšíla wą a-ø-ø-phé*
rock DEF DEM INS boy INDF STEM-3SG.O-3SG.A-hit
'With those rocks hit a boy [= x hit a boy with those rocks]'
≠ those rocks hit a boy (Van Valin p.c., Pustet p.c.)

This implies that Lakhota does not qualify as a language with animacy-DAM. Lakhota does, however, show another phenomenon that is relevant in the context of this dissertation, since it does not allow inanimate participants to be construed as A (see further in section 3.2 below).

Within my sample there are no other languages that exhibit, or have been claimed to exhibit, animacy-DAM.[4] Outside my sample, however, there is the case of ancient Hittite (present-day Turkey, Indo-European, Garrett 1990, Melchert 2011). Hittite uses nominative marking for common-gender A arguments, but an 'ergative' marker *-anza* for neuter A arguments. The common gender includes both animate and inanimate nouns, but the neuter gender only includes inanimate nouns. A similar phenomenon is also attested in the closely related languages Luvian and Lycian (Garrett 1990, Melchert 2011). While this analysis is somewhat controversial (see e.g. Patri 2007), it does seem to be possible to use the label DAM here. A crucial aspect for our analysis, however, is that this type of DAM is not exactly governed by animacy, since semantically inanimate nouns can belong to both the common and the neuter gender (Garrett 1990: 266, 271, Luraghi p.c.).

In this section, I have shown that DAM exclusively governed by animacy is uncommon in my sample, with only six attestations. In the next section, I discuss DAM where animacy is one, but not the only factor that is involved.

3.1.2.2 DAM governed by both animacy and focus

In a number of languages from my sample, animacy is one, but not the only factor that governs DAM. The other factor involved is a principle of discourse prominence that corresponds to the "classic" notion of focus as known from work by, for instance, Lambrecht (1994). The focus is the informative element of a clause in that it conveys information that cannot be inferred from what is already known or presupposed (Vallduví & Engdahl 1996: 462–465). In terms of Erteschik-Shir (1997: 11), it is the part to which the speaker wants to direct the hearer's attention. The type of focus that is involved in DAM is found, for instance, in contrastive contexts and in question-answer pairs. In cases of contrastive focus, as in (38a), the focus presents new information because it fills a variable with a different

[4] I do not include Bininj Gun-wok (Australia, Australian) among the languages with animacy-DAM. According to (Evans 2003: 139–140), the use of the ergative marker is optional, but "particularly common in the case of inanimate or lower animate subject". Because it is not clear how systematically the animacy of the A argument correlates with overt ergative marking, and which other features are involved in the use of the marker, Bininj Gun-wok is not further considered in this dissertation.

referent than the presupposed one ('car' is set off against 'motorcycle'). In question-answer pairs such as (38b), the focus conveys new information by filling a previously unknown variable in a presupposition (the slot created by 'who' is filled with 'Janet').

ENGLISH (Lambrecht 1994: 223, Erteschik-Shir 1997: 12–13)

(38) a. *I heard your motorcycle broke down*
— My CAR broke down *contrastive focus*

b. *Who wants to marry John?*
— JANET wants to marry John *question-answer pair*

In these examples, the focus coincides with one single participant. This type of focus is referred to as 'argument focus' (Lambrecht 1994: 222) or as 'narrow focus' (Van Valin & LaPolla 1997: 206) (other types of focus are not relevant to DAM). What is important here is that argument focus highlights the *identity* of the referent in a particular syntactic position. Argument focus does not convey new information about what happened, but about who or what was involved in it.[5] For this reason, Lambrecht (1994: 222) characterizes argument focus as 'identificational'. Before going on to the discussion of the data it should be noted that systems where information structure influences A marking are described in the existing literature with the term 'optional ergative marking', rather than as DAM (McGregor (1992), and see McGregor (2010) for a typological overview).

An example of a DAM system where both animacy and focus are involved is found in Umpithamu (Australia, Australian, Verstraete 2010). In this language, focal animate As are ergative-marked, as well as all inanimate As. Non-focal animate As, by contrast, are left unmarked. This is illustrated by the following examples. In example (39a), the A participant 'child' is unmarked because it is neither focal nor inanimate. In examples (39b) and (39c), however, the A participants 'other' and 'animal' are ergative-marked because they are focal. The A participant in (39b) is focal because its identity is contrasted with the identity of another, previously mentioned participant (contrastive focus). Example (39c), on the other hand, contains a focal A because the informative element in this clause is

[5]This does not mean that the participant is necessarily new (i.e. unknown) to the hearer. The involvement of a given participant in an event can also be presented as new information, see Lambrecht (1994), Vallduví & Engdahl (1996: 462).

the identity of the A participant, which was questioned in the immediately preceding clause. Finally, the A-participant in example (39d) is ergative-marked because it is inanimate.

UMPITHAMU (Verstraete 2010: 1638, 1641–1643)

(39) a. *Manta eentinti kali-n=iluwa*
child small carry-PST=3SG.NOM
'The child carried it'

b. [description of how someone gets a spear ready]
Nhunha-mpal watyun=iluwa
other-ERG spear-PST=3SG.NOM
'Another one speared it' [not the one who prepared the spear]

c. [somebody asks 'what is it that bit me?']
Minya-mpal atha-n=ilu-ungkuna
game.animal-ERG bite-PST=3SG.NOM-2SG.ACC
'It's an animal that bit you'

d. *Yuma-mpal anthi-ku=ingkuna*
fire-ERG burn-POT=2SG.GEN
'The fire will burn you.'

Summing up, DAM in Umpithamu is governed by animacy on the one hand, and argument focus on the other hand. A similar phenomenon is found in Waskia (Papua New Guinea, Trans-New Guinea, Ross & Paol 1978: 36–38), Fore (Papua New Guinea, Trans-New Guinea, Donohue & Donohue 1998) and Qiang (China, Sino-Tibetan, LaPolla 2003: 78–80). For Qiang, the role of focus is not entirely clear from the grammar, however.

3.1.2.3 DAM governed by focus

As already mentioned, there are also a number of languages where focus, but not animacy, is involved in DAM. This type of DAM is discussed here because I will argue in chapter 5 that focus-DAM and animacy-DAM have a similar underlying motivation.

The principle of focus which was described above for Umpithamu is involved in DAM in the languages Beria (Chad–Sudan, Nilo-Saharan, Jakobi

2006), Kâte (Papua New Guinea, Trans-New Guinea, Suter 2010), Jaminjung (Australia, Australian, Schultze-Berndt 2000: 168–169) and Kaluli (Papua New Guinea, Bosavi, Schieffelin 1995: 556ff.). In these languages, special case marking is used when the identity of the A argument involved in the event is highlighted. This is illustrated by example (40) from Beria, where the participant in A function is ergative-marked instead of zero-marked because it is in contrastive focus.

BERIA (Jakobi 2006: 136)

(40) *Jàá bòrō=gō sài ø-gí-n-ø-í*
child[ABS] man-ERG hit 3O-PRF-AUX-3A-PRF
'It's the man who hit the child'

In a number of languages, this principle of focus is combined with a slightly different principle of prominence, which is related to a more global level of discourse organization (McGregor 2006, Verstraete 2010). In these languages, ergative marking is also used when the identity of the A participant is unexpected or unpredictable, not within the context of the clause but at episode-level. This may be the case when the A participant is newly introduced or reintroduced, or when there is a switch in A participants (i.e. when a chain of clauses with the same A participant is followed by a clause where the A function is fulfilled by another participant). I use the label 'global focus' for this type of discourse prominence, to contrast with 'argument focus' as described above, where the identity of a participant is highlighted at clause level.

Shiwilu (Peru, Cahuapanan) is a language where both global and argument focus are involved in DAM (Valenzuela 2011). This is illustrated in examples (41a) and (41b). In Shiwilu, ergative marking of A participants is not obligatory. In example (41a), the ergative marker is used because the A argument is filled by a participant that is newly introduced (global focus). Argument focus also plays a role, as can be seen in example (41b), where the A argument is ergative-marked because the participant is in contrastive focus.

SHIWILU (Valenzuela 2011: 113)

(41) a. [A jaguar is introduced in a narrative]

Amana'=ler pilli'-tu-nta'-lli kusheñen
jaguar=ERG seize-VM-come-NFUT.3SG pig.3SG.POSS

'A jaguar seized his pig'

b. [The Wind and the Sun are arguing over who will be the first to make a man take off his cloak. The Wind boasts that he will do it, and the Sun replies:]

Innich-impu'-pachen kwa=ler a'ka
can-NEG-SUB 1SG=ERG indeed
a'-pida-t-echek
CAUS-take.off-VM-FUT.1SG

'And if you can't I will make him take it off'

A similar phenomenon is also attested for Ika (Colombia, Chibchan, Frank 1985: 150–154), (Brazil, Arawakan Aikhenvald 2003: 140–142) and Yongning Na (China, Sino-Tibetan, Lidz 2010: 303ff).

Although this principle of 'global focus' is admittedly quite different from argument focus, these two principles are similar enough to group them together under the umbrella notion of 'focus' (see also Verstraete 2010). Both types of focus involve highlighting the identity of A participants, albeit for different reasons and at different levels. In the case of argument focus, attention is drawn to the identity of the participant involved in an event because this is new information that constitutes the informative part of the clause. With global focus, by contrast, attention is drawn to the identity of the A argument because this identity is not expected within the broader discourse context. The similarity between argument and global focus is also confirmed by the fact that global focus is usually combined with argument focus in DAM systems (see the examples cited above). Admittedly, this is not always the case. In Warrwa (Australia, Australian McGregor 2006) and Karok (United States, Karok, Macaulay 2000), only global focus seems to play a role in DAM. Warrwa exhibits an A-marking system that appears to be fairly unique. There are three possibilities for the marking of A participants: overt marking using the focal ergative marker, overt marking using the standard ergative marker, and zero marking. McGregor (2006) argues that the use of the focal ergative marker depends on global focus, as well as on high agentivity (the ability to affect other participants, i.e. a measure of how powerful the participant

is in the given context). Argument focus is not involved in DAM in this language.

In this section, I have shown that, in total, there are only 10 languages (spread over 5 language families) from my sample where animacy plays a role in DAM. This implies that this phenomenon is not very common, especially given the fact that the sample was collected with special attention for phenomena associated with involuntary and inanimate Agents (see section 2.3.1). Furthermore, I have argued that, in four of these languages, DAM is not only governed by animacy but also by focus. In addition, I have shown that focus is a factor that can govern DAM without being combined with animacy.

3.1.3 DAM governed by volitionality

In this section I discuss DAM governed by volitionality, i.e. a phenomenon where volitional As and involuntary As are marked using a different case. I argue that such a phenomenon is very uncommon cross-linguistically. In my sample, there are no unequivocal attestations. There is only one language, namely Folopa, that exhibits a phenomenon that is somewhat similar to volitionality-DAM. Furthermore, the languages Samoan, Meithei, Lezgian and Futuna have been cited in the literature as examples of volitionality-DAM, but in each case this analysis is problematic, as also argued in Fauconnier (2011b).

Folopa (Papua New Guinea, Teberan-Pawaian) has a system of ergative marking that looks like DAM governed by volitionality. In Folopa, the use or non-use of the ergative case seems to be a matter of the social right to control an action, or to manipulate certain objects (Anderson & Wade 1988). Normally, As have ergative marking, but this can be omitted when the A participant does not have the social right to control and manipulate the O participant. This is illustrated in example (42). The first instance of the first singular pronoun is ergative-marked, because the action pertains to the speaker's own dog, over which he can rightfully exert control. The second instance of the pronoun, by contrast, is absolutive-marked because the O participant 'cloth' does not belong to the speaker himself. As a result, he does not have the social right to manipulate the object, and ergative marking cannot be used.

FOLOPA (Anderson & Wade 1988: 12)

(42) *No yąlo yuwi naapa-r-aai-raalu i kuti hąki-kó*
brother 1SG.ERG dog tie.foot-TR-INC-SIM DEM cloth old-INDF
ę mąl bisaą-ta-pó
1SG.ABS DIMIN tear-PRS-IND
'Brother, I want to tie my dog's foot under his chin, so can I tear off a piece of this cloth?'

Anderson & Wade (1988) give two examples, quoted below as (43a) and (43b), where this contrast of "rightful" vs "non-rightful" action leads to what seems to be a contrast in volitionality.

FOLOPA (Anderson & Wade 1988: 7)

(43) a. *No-ó kale naaǫ o make ę di-ale-pó*
Brother-VOC DEF 2SG.POSS sago young 1SG.ERG cut-PST-IND
'Brother, I (intentionally) cut down your sago tree'

b. *No-ó kale naaǫ o make yąlo di-ale-pó*
Brother-VOC DEF 2SG.POSS sago young 1SG.ABS cut-PST-IND
'Brother, I (mistakenly) cut down your sago tree'

In (43a), the first singular pronoun is ergative-marked. This way, the speaker indicates that he had the right to cut down his brother's sago tree. In (43b), by contrast, the pronoun is absolutive-marked. This way, the speaker admits that he did not have the right to cut down the tree, and acknowledges that he should not have done this. As a result, the clause can get a reading of "mistaken action". Note, however, that this is not exactly the same as an involuntary action reading (see also section 2.3.2, Kittilä 2005), since nothing indicates that the cutting itself was involuntary. On the whole, the A marking system found in Folopa does not qualify as DAM governed by volitionality, since the alternation between absolutive and ergative marking does not regularly encode a difference in volitionality.

A correlation between A marking and volitionality has also been reported for Samoan (Pacific, Austronesian, see Kittilä 2005). What looks like a contrast between volitional and involuntary A is in fact a contrast between A arguments and Experiencer arguments, however. In this language, a small number of cognitive verbs such as 'see' can take either

a transitive case frame (ergative-marked A, absolutive-marked O), or an experiencer case frame (absolutive case for the Experiencer, locative case for the Stimulus) (Mosel 1991, Mosel & Hovdhaugen 1992: 424, 427ff). When these verbs take a transitive case frame, the action is more conscious than with an experiencer case frame. Put differently, a participant encoded as A is construed as more actively involved in the event than a participant encoded as Experiencer. This results in a contrast along the lines of the difference between 'look at' and 'see'. Note that the alternation between the two case frames is not possible with regular transitive verbs beyond the semantic domain of cognition. All of this implies that it is not possible to label this phenomenon as volitionality-DAM.

Another language that has been associated with volitionality-DAM in the literature is Meithei (India, Sino-Tibetan, see e.g. Bhat 1991, de Hoop & Malchukov 2008). More recently, however, Chelliah (2009) has conducted an in-depth investigation of the phenomenon on the basis of her fieldwork, and concludes that the use of the Meithei ergative case marker is not determined by volitionality. Instead, she argues that its use is associated with unexpected, uncharacteristic action. This is discussed in more detail in section 5.1.2.3.

Next, Lezgian (Caucasus, Nakh-Daghestanian) has also been cited as an example of a language that exhibits volitionality-DAM (see e.g. Malchukov 2006, Kittilä 2005). In this language, volitional Agents are usually coded as the ergative-marked A argument of transitive verbs. Involuntary Agents, by contrast, are coded as adelative-marked adjuncts. Such adelative-marked adjuncts, however, cannot be construed as the A argument of a clause with a transitive verb and an O participant. As a result, there is no DAM in Lezgian (Haspelmath 1993a: 291–293). In chapter 4, section 4.1.3, I discuss the relevant Lezgian construction in more detail (see the examples in (69) on page 75).

Finally, Næss (2007: 93–94) lists Futuna as a language where involuntary Agents are oblique-marked, while volitional Agents are ergative-marked. The following examples illustrate that this is not a case of DAM, however, because oblique-marked Agents are not A arguments of transitive verbs.

FUTUNA (Moyse-Faurie p.c.)

(44) a. *Na kai e ia le fā pomo*
PST eat ERG 3SG DEF CLF apple
'He ate the apple'

b. *Na mafa'a le ipu iate ia*
PST be.broken DEF bowl OBL 3SG
'He accidentally broke the bowl (the bowl has broken because of him)'

c. *Kua mafa'a le ipu*
PRF be.broken DEF bowl
'The bowl got broken'

In example (44b), the involuntary Agent is indeed oblique-marked instead of ergative-marked; compare with (44a) where the Agent is volitional. There is, however, another crucial difference from (44a): in (44b) the verb *mafa'a* is not transitive but intransitive. It has the detransitivizing prefix *ma-*, which is normally used as an anticausative–resultative marker (example (44c)) (Moyse-Faurie 1997: 199, p.c.). This implies that the oblique-marked Agent in (44b) is not construed as the A argument of a transitive verb and that, as a result, this is not an instance of DAM. Instead, this type of phenomenon pertains to the marking of the verb, as will be discussed in section 4.1.

Apart from the languages discussed in this section, I have not found any other languages that show evidence of volitionality-DAM. As a result, I conclude that such a phenomenon is very rare cross-linguistically, if it exists at all.

3.2 Incompatibility with the A function

The previous sections dealt with the phenomenon of Differential A Marking. In this section, I focus on another type of phenomenon that is related to the A function. In a number of languages, some types of participants are incompatible with the A function, i.e. they cannot be construed as A arguments. While this phenomenon has received very little attention in the existing literature (see however DeLancey 1984, Fauconnier 2011a), I

will argue in chapter 5 that it is important for our understanding of the semantic domains studied in this dissertation. In the following sections, I will show that it is not uncommon for inanimate participants to be incompatible with the A function (section 3.2.1). A similar phenomenon, where only non-motive inanimates are incompatible with the A function, is also found in a number of languages (section 3.2.2). There is, however, comparatively little evidence for a phenomenon where involuntarily acting participants are incompatible with the A function, so this is not further discussed here.

3.2.1 Inanimates incompatible with A function

In a number of languages from my sample, inanimate participants cannot be construed in A function. In Kiowa (United States, Kiowa-Tanoan), for instance, a clause like 'the ice broke it' is ungrammatical, as can be seen from example (45a). Instead, speakers can use two intransitive coordinate clauses, as in example (45b).[6]

KIOWA (Watkins 1984: 112)

(45) a. * *Tę́:gyà é-t^{h}êm*
ice 3SG.A.3SG.O-break.PRF
'The ice$_i$ broke it$_j$'

b. *Tę́:gyà ø-p^{h}í: nò óyhòdé è-t^{h}êm-gyá*
ice 3SG-heavy and that 3SG-break-INTR.PRF
'The ice$_i$ was heavy and that's why it$_j$ broke'

The same phenomenon is also attested for Korean (Korea, Korean, Yeon 2003: 129), Tlapanec (Mexico, Oto-Manguean, Wichmann 2009: 798, p.c.), Japanese (Japan, Japanese, Kuno 1973: 31), Belhare (Nepal, Sino-Tibetan, Bickel 2004: 165, p.c.), Matses (Peru, Panoan, Fleck 2003: 831), Lakhota (United States, Siouan, Pustet p.c.)[7] and Jakaltek (Mexico, Mayan, Craig

[6] The original glosses for these examples include INV, for 'inverse number'. Since this number marks singular nouns here, I re-glossed it as singular in order to avoid confusion with inverse voice marking.

[7] According to Van Valin (1985, p.c.), Lakhota has a restriction against non-motive inanimate As, but not against motive inanimate As. According to Pustet (p.c.), however, good speakers do not code either motive or non-motive inanimates as As.

1977: 73–75). Jakaltek, however, differs from the other languages mentioned here in that it allows inanimate As with certain verbs of complete destruction, such as 'destroy' or 'smash' (Craig 1977: 74). Out of the 200 languages included in my sample, this phenomenon is thus attested in 8 languages.

Three languages show a similar phenomenon, in that inanimate As only occur rarely, and are generally avoided, but not strictly ungrammatical. This is the case, for instance, in Koyra Chiini (Mali, Nilo-Saharan, Heath 1999: 128) and Yimas (Papua New Guinea, Lower Sepik-Ramu, Foley 1991: 203–204). In Sochiapan Chinantec (Mexico, Oto-Manguean, Foris 2000: 269–270), it is in principle possible to construe inanimates as A arguments, but this results in a clause that is considered to be slightly humorous. The preferred method for encoding these situations is a passive construction where the inanimate Agent is not encoded as an A argument but as an oblique adjunct. It is possible that a similar phenomenon occurs in more languages, but it is not often mentioned explicitly in grammars.

3.2.2 Non-motive inanimates incompatible with A function

In some languages, only specific types of inanimates are incompatible with the A function. While motive inanimates can be construed as A, non-motive inanimate As are ungrammatical. This phenomenon is attested for the Hare dialect of Slave (Canada, Na-Dene, DeLancey 1984). As illustrated in example (46a), a motive inanimate participant like the natural force 'lightning' can be in A function. Non-motive inanimates, such as 'axe' in example (46b), cannot be construed as A.

HARE (SLAVE) (DeLancey 1984: 186, 208)

(46) a. *'Idikóne' ye-wéhxį*
lightning 3.O-kill.PST
'Lightning killed him'

b. * *Gofį yejai tá'enįse*
axe glass break.PST
'The axe broke the window'

This phenomenon is also attested for Khmu (Laos, Austro-Asiatic, Svantesson 1983: 103–104), Yuchi (United States, Yuchi, Linn 2001: 162–163), Hausa (Nigeria, Afro-Asiatic, Heide 1989: 60–61), Fongbe[8] (Benin, Niger-Congo, Lefebvre & Brousseau 2002: 270–273), Tunumiisut (Greenland, Eskimo-Aleut, Mennecier 1995: 448–449), San Miguel Chimalapa Zoque (Mexico, Mixe-Zoque, Johnson 2000: 20, 114), Semelai (Malaysia, Austro-Asiatic, Kruspe 2004: 158), Shipibo-Konibo (Peru, Panoan, Valenzuela 2003: 648) and Hindi (India, Indo-European, Mohanan 1994: 74–75). In total, 10 languages from my sample thus exhibit this phenomenon.

It is worth noting that the phenomena described in this section are more widespread cross-linguistically than animacy-DAM: they are attested in 21 languages spread over 18 different families. Animacy-DAM (including DAM governed by both animacy and focus), by contrast, is only found in 10 languages spread over 5 language families.

3.3 Other phenomena

In this section, I discuss two other phenomena that can be associated with involuntary and inanimate Agents. I include these phenomena in the chapter about A-related marking, but strictly speaking they do not concern the direct marking of the A argument itself. The first phenomenon is related to the tracking of A arguments in switch-reference systems, and the second is related to 'intensive' marking on either the A or the O of a transitive clause.

The first phenomenon is found in Quechan, also known as Kwtsaan (United States, Hokan). As a language marking switch-reference, Quechan has a 'same subject' verbal suffix *-k*, which indicates that the subject of the following verb is coreferential with the subject of the verb it is attached to, as well as a 'different subject' particle *-m*, which is used in cases of non-coreferentiality. With regular transitive clauses, these particles track Agent coreferentiality. In example (47a), for instance, the Agent of the verbs 'raise' and 'get' is the same participant, so the same subject suffix *-k* is used. When the action is non-volitional, however, it is not the involuntary Agent but the Patient that is tracked by the switch-reference system. In example (47b), the Agent of the verb 'raise' acts accidentally. Even though

[8] See below in chapter 5 for an elaborate discussion of Fongbe.

this involuntary Agent is coreferential with the Agent of the following verb 'get', the different subject suffix *-m* is used instead of the same subject suffix *-k* (Slater 1977).

QUECHAN (Slater 1977: 27)

(47) a. *Taman-k* *adaw-ta*
3SG.raise.up-SS 3SG>3SG.get-TNS
'He$_i$ raised it up and [he$_i$] got him'

b. *Taman-m* *adaw-ta*
3SG.raise.up-DS 3SG>3SG.get-TNS
'He$_i$ raised it up by accident and [he$_i$] got him$_j$'

A similar phenomenon occurs in Barai (Papua New Guinea, Trans-New Guinea) (Olson 1978, 1979), which also shows a second phenomenon. In this language, the 'intensive' marker *-ka* can be added to the pronoun referring to the 'most prominent' participant, which corresponds to the A argument in standard transitive clauses. In clauses with an inanimate A, by contrast, it is the O argument that takes the intensive marker (Olson 1978). This is illustrated in (48). Example (48a) shows that *-ka* is added to the A argument when it is human, while (48b) shows that it is added to O when it is inanimate.

BARAI (Olson 1978: 143)

(48) a. *Vito fu-ka* *na* *kan-ie*
Vito 3SG-INTENS 1SG strike-1SG
'Vito is really striking me'

b. *Na-ka* *maza kan-ie*
1SG-INTENS sun strike-1SG
'The sun is really striking me'

Furthermore, *-ka* interacts with volitionality in clauses where the verb can denote either a volitional or an involuntary action. When the marker is added to the A pronoun, the action is interpreted as volitional (example (49a)), but in combination with the O pronoun the marker gives rise to an involuntary Agent interpretation (example (49b)) (Olson 1978, 1979). Note that these examples have an experiencer-like verb, but from Olson's (1979)

description it can be inferred that the same holds for certain transitive verbs with meanings such as 'break' (see e.g. pp. 343ff.).

BARAI (Olson 1978: 152)

(49) a. *A-ka bu oefiad-ia*
2SG-INTENS 3PL sadden-3PL
'You really saddened them [deliberately]'

b. *A bu-ka oefiad-ia*
2SG 3PL-INTENS sadden-3PL
'You really saddened them [unintentionally]'

To sum up, the Barai intensive marker tends to be added to the O instead of the A argument in clauses with an involuntary or inanimate Agent.

The phenomena discussed in this section are rather idiosyncratic, but they have a common characteristic. In both cases, clauses with involuntary or inanimate Agents treat the O argument as syntactically more prominent than the A argument. It is the O that is tracked by switch-reference marking, or that attracts marking typically reserved for A arguments.

4

Verb-related phenomena

This chapter discusses verb-related phenomena associated with involuntary and inanimate Agents. These 'verb-related' phenomena are characterized by the use of a marker that has semantic scope over the event as a whole, and that is usually, but not necessarily associated with the verb or an auxiliary. In the next sections, I will make a distinction between three types of verbal marking. The first section discusses verbal markers associated with anticausative voice (section 4.1). The second section focuses on verbal markers with an aspectual function (section 4.2). In section 4.3, finally, I talk about constructions with a 'dedicated' verbal marker, i.e. a marker that is used exclusively in clauses with involuntary or inanimate Agents (section 4.3).

4.1 Anticausative voice

In a number of languages from my sample, the presence of an involuntary or inanimate Agent can prompt the use of a construction characterized by the presence of an anticausative marker. I use the term 'anticausative' in the sense of Haspelmath (1987) and Nedjalkov & Sil'nickij (1969) (see also Härtl 2003, Siewierska 2011). The examples in (50) illustrate the use of an anticausative marker in Turkish, which derives clauses like (50b) from clauses like (50a).

TURKISH (Haspelmath 1987: 2)

(50) a. *Annem kapı-yı aç-tı*
mother.1SG.POSS door-ACC open-PST
'My mother opened the door'

b. *Kapı aç-ıl-di*
door open-ANTIC-PST
'The door opened'

Anticausative markers are defined in both syntactic and semantic terms. At a syntactic level, they are valency reducers or detransitivizers. They remove the A argument from the syntactic structure of the verb, which results in a syntactically intransitive verb whose S argument is the original O. At a semantic level, these markers delete the Agent role from the semantic structure of the verb. As a result, the action denoted by the derived verb seems to take place spontaneously, affecting a Patient without the involvement of an instigator. In this section, I show that involuntary and inanimate Agents can trigger the presence of markers associated with this function.

The phenomenon discussed in this section was first pointed out by Kittilä (2005), who argues that constructions associated with involuntary Agents can be characterized by a detransitivizing marker (see also Verstraete 2007). This claim is a bit too general, however. It is not just any type of detransitivizing marker that can be used in these constructions; this is only possible when the marker can be associated with an anticausative function. Of course, the marker is not necessarily just anticausative. In some cases, it is also used in, for instance, reflexive, middle or antipassive constructions. What is important here, however, is that anticausativization is the only function that these markers share cross-linguistically. Put differently, detransitivizing markers used with involuntary Agents are minimally associated with anticausativization, but it can be more than just that. Because of this, I use the term 'anticausative', and the gloss ANTIC, to refer to each of these markers, even when they also have other functions.

This implies that 'anticausative' has to be interpreted as a comparative concept in the sense of Haspelmath (2010) (see section 2.2.2), and not as a descriptive category. I use the term to formulate cross-linguistic generalizations, and not to make statements about language-specific syntactic

categories. As a result, a marker that is labeled as anticausative in this section is not always labeled as such in the literature on each specific language. For example, in Sinhala there is a morphological process known as the "involitive mood" (see e.g. Beavers & Zubair 2010, forthcoming, Inman 1993, Henadeerage 2002). I use the label 'anticausative' here because this process is used to derive clauses such as (51b) from clauses such as (51a).

SINHALA (Beavers & Zubair forthcoming)

(51) a. *Aruni Nimal-wə giluwa*
Aruni Nimal-ACC drown.PST
'Aruni drowned Nimal'

b. *Nimal giluna*
Nimal drown.ANTIC.PST
'Nimal drowned'

According to Beavers & Zubair (2010, forthcoming), the involitive mood is associated with anticausativization, but this is not its basic function. They argue that its core meaning is rather associated with non-specification of agentivity. For the purpose of this study, however, the involitive mood can still be characterized as anticausative, because it is used as such.

This section is divided in three parts. The first part (section 4.1.1) focuses on the use of anticausative-marked verbs in constructions with involuntary Agents (see also Fauconnier 2011b). Next, I discuss the use of similar constructions in clauses with inanimate Agents (section 4.1.2). In section 4.1.3, finally, I discuss a number of phenomena that are similar to those discussed in the first two parts, but also differ from them in important ways.

4.1.1 Anticausative voice and involuntary Agents

In this section, I will show that the presence of an involuntary Agent can lead to the use of a construction with an anticausative-marked verb. Even if the verb is anticausative-marked in all these constructions, there is variation in the type of case frame that is used. There are three options:

1. The Patient is realized as the S argument of the anticausative-marked verb, while the involuntary Agent is marked with an oblique case associated with agentivity (intransitive case frame).
2. The Patient is realized as the S argument of the anticausative-marked verb, while the involuntary Agent is marked with a benefactive / malefactive case (intransitive case frame).
3. The involuntary Agent and the Patient are marked in the same way as the A and O arguments of a regular transitive verb (transitive case frame).

The first two options are not surprising given the fact that anticausative markers are detransitivizers, but the third option, the combination with a transitive case frame, is somewhat unexpected. In the following paragraphs each of these three options will be discussed in more detail, starting with the first one.

The use of anticausative markers in constructions associated with involuntary Agents can be illustrated with the following examples from Guugu Yimidhirr (Australia, Australian, Haviland 1979: 123–126).

GUUGU YIMIDHIRR (Haviland 1979: 125, 149)

(52) a. *Ngayu galga nhanu dumbi*
1SG.NOM spear[ABS] 2SG.GEN break.PST
'I broke your spear [on purpose]' *volitional Agent*

b. *Ngadhun.gal galga nhanu dumbi-:dhi*
1SG.ADESS spear[ABS] 2SG.GEN break-ANTIC.PST
'I accidentally broke your spear' *involuntary Agent*

c. *Yarrga-wi biiba dhamal wagi-:dhi*
boy-GEN father[ABS] foot[ABS] cut-ANTIC.PST
'The boy's father's foot got cut' *anticausative*

(52a) is a clause with a volitional Agent, while (52b) is a clause with an involuntary Agent. In the second example, the verb 'break' is marked with the suffix *-:dhi*. This is a valency-reducer that can be used "to describe actions performed without conscious outside agency" (Haviland 1979: 127), i.e. it can have an anticausative function, as illustrated in example (52c).

Verbs derived by this suffix are intransitive, with a patientive S. Because of this, the involuntary Agent in (52b) is not construed as an A argument, but as an adessive-marked adjunct, while the Patient is realized as the absolutive-marked S argument, just like in (52c). The adessive case that is used with the involuntary Agent is a spatial case that normally marks animate participants in whose presence the action of the verb takes place, and who are actively involved in the event (or will be actively involved in subsequent events) (Haviland 1979: 110). This implies that example (52b) can be more literally translated as 'your spear broke, and I was actively involved'.

Summing up, in Guugu Yimidhirr involuntary Agency can lead to a construction with an anticausative-marked verb, a patientive S and an adjunct marked by a case that is—at least to a certain extent—associated with agentivity. This phenomenon is not only found in Guugu Yimidhirr, but also in Kuku Yalanji (Australia, Australian, Patz 2002: 144–151), Finnish (Finland, Uralic, Kittilä 2005, p.c.), Indonesian (Indonesia, Austronesian, Sneddon 1996: 113–115, de Vries 1983), Futuna[1] (Moyse-Faurie Pacific, Austronesian, 1997, p.c.), Sinhala (Sri Lanka, Indo-European, Chandralal 2010: 105–108, Henadeerage 2002: 113ff, Inman 1993), Hinuq (Caucasus, Nakh-Daghestanian, Forker 2010: 460–461), Puyuma (Taiwan, Austronesian, Teng 2008: 180–184, see the examples in (53)) and Lezgian (Caucasus, Nakh-Daghestanian, Haspelmath 1993a, p.c.).[2]

PUYUMA (Teng 2008: 180)

(53) a. *Mu-bu'utr=la na lawlaw*
ANTIC-stop=PRF DEF.NOM lamp
'The lamp went out' *anticausative*

b. *Ku=s<in>alrem na 'aputr i, mu-dupa'*
1SG.POSS=<PRF>plant DEF.NOM flower TOP ANTIC-step
dra gung
INDF.OBL OX

[1] See section 3.1.3.

[2] Lezgian shows an idiosyncrasy that is not attested with the other languages. Lezgian forms anticausative verbs by combining the stem of a transitive verb with *x̂un*. This same marker is also used in constructions with an involuntary Agent and a transitive verb, but in this case it is not added to the verb stem, but to its Masdar form (comparable to a gerund) (Haspelmath 1993a: 91, 165–166).

'The flowers I planted, they were [accidentally] stepped on by an ox' *involuntary Agent*

In my sample, there are a number of languages that show a slightly different phenomenon. In these languages, involuntary Agency can also prompt the use of a construction with an anticausative verb and a patientive S. The participant that is interpreted as the involuntary Agent, however, is not marked with an agentive case, but with a benefactive–malefactive case like the dative. This is illustrated by the following examples from Koasati (United States, Muskogean, Kimball 1991).

KOASATI (Kimball 1991: 76–77)

(54) a. *A:nipó-k am-onaksóh-ka-t*
meat-NOM 1SG.DAT-char-ANTIC-PST
'I charred the meat by accident' *involuntary Agent*

b. *Ittinsá:wa-k kaw-ká-ːci-hawa-ːs*
branch-NOM snap.PL-ANTIC-MULT-AUD-PST
'One can hear the branches snapping all around' *anticausative*

(54a) is a clause that represents accidental action. The verb is marked with the suffix *-ka*, which has an anticausative function, as can be seen in example (54b). Like in Guugu Yimidhirr, the semantic Patient 'meat' is realized as the S participant of the intransitivized verb. Unlike in Guugu Yimidhirr, however, the involuntary Agent is marked using the dative. This phenomenon is also attested for Eton (Cameroon, Niger-Congo, Van de Velde 2008: 122–123, p.c.), Kiowa (United States, Kiowa-Tanoan, Watkins 1984: 112, 142–143, 149–150), Laz (Caucasus, Kartvelian, Lacroix 2009: 541–547), Albanian (Albania, Indo-European, Kallulli 1999), Spanish (Spain, Indo-European, Cuervo 2003: 186ff.), Polish (Poland, Indo-European, Rivero 2003, Geniušienė 1987, Rivero & Sheppard 2003: 151) and Sinhala (Sri Lanka, Indo-European, Chandralal 2010: 105–108, Henadeerage 2002: 113ff, Inman 1993). Sinhala is remarkable in that the involuntary Agent can be either marked by an agentive postposition, or by the dative case. This is illustrated in the following examples. Both (55a) and (55b) have an anticausative-marked verb (compare with example (55c)). In (55a), the involuntary Agent has agentive marking, but in (55b) it has dative marking. For an analysis of the precise semantic difference between these two possibilities, see Beavers & Zubair (2010).

SINHALA (Chandralal 2010: 106, 152, 154)

(55) a. *Miniha atin pingaanə binduna*
3SG AGT plate break.ANTIC.PST
'He unintentionally broke the plate' *involuntary Agent*

b. *Lamea-ʈə waturə pewe-nəwa*
child-DAT water drink.ANTIC-IND
'The child unintentionally swallows water' *involuntary Agent*

c. *Pingaanə binduna*
plate break.ANTIC.PST
'The plate broke' *anticausative*

It should be noted that the malefactive-marked participant is not always necessarily interpreted as an involuntary Agent. Not surprisingly, it can also be a Maleficiary, as is illustrated in the following example from Spanish.

SPANISH (Cuervo 2003: 186)

(56) *Al tintorero se le quemaron los pantalones de Carolina*
DEF.DAT dry.cleaner ANTIC DEF.DAT burn.PL.PST DEF.PL trousers GEN Carolina
'Carolina's trousers got burnt on the dry cleaners' OR
'The dry-cleaner accidentally burnt Carolina's trousers'

In this example, the dry-cleaner can be both an involuntary Agent or a Maleficiary, i.e. a participant who is adversely affected by an event (see Kittilä & Zúñiga 2010).[3]

Finally, there is a third type of phenomenon. As in the previous types, the presence of an involuntary Agent leads to the use of an anticausative-marked verb, but here the verb takes a transitive case frame, even though

[3]In some cases, the involuntary Agent can also be interpreted as a participant who is able to perform the action expressed by the verb. This results in a modal reading. This phenomenon is attested in a number of languages discussed in this chapter (see e.g. Chandralal (2010: 108) on Sinhala). In Fauconnier (2011b), however, I argued that there is no direct link between volitionality and modality. This is why this is not further discussed in this dissertation.

it is normally associated with morphosyntactic intransitivity. The involuntary Agent and the Patient are expressed in the same way as the A and the O arguments in a regular transitive clause. This can be illustrated using the following examples from Yidiny (Australia, Australian, Dixon 1977: 274–275, 288–289).

YIDINY (Dixon 1977: 275, 284, 277)

(57) a. *Buɲa waguɖa-ŋgu gunda-ːɖi-ɲu baŋgaːl-da*
woman[ABS] man-ERG cut-ANTIC-PST axe-INS
'The man cut the woman accidentally with his axe'
involuntary Agent

b. *ŋayu ɖuŋgaː-na ŋaɲaɲ gula baga-ːɖi-na*
1SG.S run-PURP 1SG.ACC body[ABS] spear-ANTIC-PURP
'I had to run and as a result my body got speared' *anticausative*

c. *Waguːɖa dungu buɲa-ːŋ ɖina-ː baʈa-ːl*
man[ABS] head[ABS] woman-ERG foot-INS strike-PST
'The woman kicked the man's head' *volitional Agent*

Example (57a) contains a clause representing an involuntary action. The verb is marked with the suffix *-ːɖi*, which is a cognate of Guugu Yimidhirr *-ːdhi* (Haviland 1979: 121). Normally, this suffix functions as a detransitivizer: as illustrated in example (57b), it can function as an anticausative marker. In example (57a), however, a verb marked with this suffix is combined with a transitive case frame. The Patient is absolutive-marked and the involuntary Agent has ergative marking, which in Yidiny can only be used with A arguments (Dixon 1977: 124). The case frame used in this example is exactly the same as the one used in the transitive clause in (57c).

The same phenomenon is found in Cupeño (United States, Uto-Aztecan, Hill 1969, see also Jacobs 1975: 59–61). The verbal suffix *-yaxe* normally transforms transitive clauses such as *I broke the pot* into anticausative ones such as *the pot broke*, as in example (58a). This anticausative suffix can also be used in non-volitional clauses, but the involuntary Agent and the Patient are marked as A and O. This is illustrated in example (58b), where two arguments are cross-referenced on the verb, even though it is marked with *-yaxe* (Hill 1969).

CUPEÑO (Hill 1969: 349–350, my glosses)

(58) a. *Kevá'melem cípil-pe-yaxe*
pot break-3SG.S-ANTIC
'The pot shattered' *anticausative*

b. *Ne'en pi-wecáx-ne-yaxe*
1SG 3SG.O-throw.down-1SG.A-ANTIC
'I dropped it accidentally' *involuntary Agent*

An interesting variation on this phenomenon is found in Dhimal (Nepal, Sino-Tibetan, King 2007) and Shipibo-Konibo (Peru, Panoan, Valenzuela 2003). Dhimal has a construction with an anticausative-marked verb, an involuntary Agent in A function and a Patient in O function. This construction shows an important point of difference with constructions like the ones in Yidiny and Cupeño, however. The verb does not only have an anticausative marker, but also a causative marker. This causative marker productively derives transitive verbs from intransitive ones by adding an A argument (King 2007: 200–201). Example (59a) illustrates the anticausative function of the marker *-nha*, while the use of the causative *-pa* is illustrated in (59b). Example (59c) shows how both markers are used on the verb of a clause with an involuntary Agent.

DHIMAL (King 2007: 201, 189, 199)

(59) a. *Lokhon khoi-nha-teŋ the?-hi*
clothing hang-ANTIC-SEQ rip-PST
'The clothing got caught and ripped' *anticausative*

b. *Lem-pa-khe*
laugh-CAUS-IPFV
'[He] makes [me] laugh' *causative*

c. *Gilas-ko ci-heŋ tu:-nha-pa-nha!*
glass-GEN water overturn-ANTIC-CAUS-2SG.PST
'You knocked the glass of water over!' *involuntary Agent*

Shipibo-Konibo shows a similar phenomenon (Valenzuela 2003: 640–643). In this language, verbs with both an anticausative and a causative marker are used in contexts of indirect causation, as in (60a), but also in clauses with involuntary Agents, as in (60b).

SHIPIBO-KONIBO (Valenzuela 2003: 642–643)

(60) a. *E-n-ra* *bake* *raté-ma-ke*
1SG-ERG-EVID child[ABS] scare.ANTIC-CAUS-COMPL
'I let the child get scared' (e.g. I left the child alone, and while I was away the child got scared; I feel responsible about it)

b. *E-n-ra* *xobo* *menó-ma-ke* *mari*
1SG-ERG-EVID house[ABS] burn.ANTIC-CAUS-COMPL mari
bina *meno-kas-kin*
wasp[ABS] burn-DESID-SS
'I [accidentally] caused the house to burn wanting to kill the wasp (by burning it)'

Finally, Tanacross can also be grouped into this category (United States, Na-Dene, Holton 2000: 191–192, 241, p.c.). In this language, involuntary Agents can also trigger the use of a construction with an anticausative-marked verb and a transitive case frame. However, the verb is not just marked for anticausative voice, but also has a marker that explicitly signals the involuntary nature of the action (see also section 4.3).

Finally, I would like to point out that some languages have a construction with an intransitive case frame that is nevertheless somewhat similar to the constructions that are found in Yidiny and Cupeño, with a transitive case frame. This is the case, for instance, in Sinhala. Recall that Sinhala has a construction with an anticausative-marked verb, a Patient marked in the same way as the S of an intransitive anticausative construction, and an involuntary Agent marked with the agentive postposition *atin*. This was illustrated in (55a), and also in (61) below.

SINHALA (Chandralal 2010: 108)

(61) *Chitra atin baisikəle hæppe-nəwa*
Chitra AGT bicycle strike.ANTIC-IND
'Chitra accidentally strikes her bicycle against (the fence)'

Thus, this construction does not mark the involuntary Agent and the Patient as the A and O of a regular transitive clause. Yet, it is similar to constructions with a transitive case frame in that it behaves as a construction with two core arguments, and not as a construction with

one core argument and one adjunct (Beavers & Zubair forthcoming, 2010, Inman 1993, Henadeerage 2002). For instance, the NP representing the involuntary Agent passes tests for subjecthood in control constructions and in constructions with reflexive anaphora (Henadeerage 2002, Beavers & Zubair forthcoming). A similar observation can be made for Hinuq, where involuntary Agents do not behave like typical adjuncts, but have certain properties associated with argumenthood (Forker & Khalilova 2011). This implies that the distinction between 'intransitive' and 'transitive' anticausative constructions is not always clear-cut.

In this section, I have shown that the presence of an involuntary Agent can lead to the use of a construction with a verb that is marked for anticausativization. I have also shown that there are three different possibilities with respect to the case frame. First, the involuntary Agent is marked with an oblique case associated with agentivity, while the Patient is marked as S. Second, the involuntary Agent is marked using a benefactive/malefactive case, with the Patient again marked as S. Third, the involuntary Agent and the Patient are marked as the A and O of a transitive clause. In the next section, I discuss the use of similar constructions with inanimate Agents.

4.1.2 Anticausative voice and inanimate Agents

It seems that the anticausative constructions described in the previous section can in some cases also be used with inanimate Agents, in addition to involuntary Agents.[4] The following examples are from Yidiny. (62a) is an anticausative construction with an ergative-marked involuntary Agent, which is similar to example (57a). (62b) is the same construction, but with an inanimate Agent.

YIDINY (Dixon 1977: 275)

(62) a. *Buɲa waguɖa-ŋgu gunda-:ɖi-ɲu baŋga:l-da*
woman[ABS] man-ERG cut-ANTIC-PST axe-INS
'The man cut the woman accidentally with his axe'
involuntary Agent

[4]It should be noted, however, that this possibility is not always explicitly affirmed or denied in the reference grammars of the other languages.

b. *ŋaɲaɲ ginga-ːŋ giba-ːɖi-ɲu*
1SG.ACC prickle-ERG scratch-ANTIC-PST
'A prickle scratched me' *inanimate Agent*

This is also possible in Puyuma (Teng 2008: 180–181), Indonesian (de Vries 1983: 167), Futuna (Moyse-Faurie p.c.), Hinuq (Forker 2010: 460–461) and Sinhala (Chandralal 2010: 105–106), as illustrated in the following examples.

SINHALA (Chandralal 2010: 106, 105)

(63) a. *Lamea-ʈə waturə pewe-nəwa*
child-DAT water drink.ANTIC-IND
'The child unintentionally swallows water' *involuntary Agent*

b. *Kaɖuə-ʈə atə kæpe-nəwa*
sword-DAT hand cut.ANTIC-IND
'The sword is cutting his hand' *inanimate Agent*

Finally, Guugu Yimidhirr also allows the use of the anticausative marker in constructions with involuntary Agents as well as with inanimate Agents. In this language, however, the case used for involuntary Agents differs from the case used for inanimate Agents; compare (64a) (discussed above as (52b)) with (64b). A similar phenomenon is found in Kuku Yalanji (Patz 2002: 144–151).

GUUGU YIMIDHIRR (Haviland 1979: 125, 123)

(64) a. *Ngadhun.gal galga nhanu dumbi-ːdhi*
1SG.ADESS spear[ABS] 2SG.GEN break-ANTIC.PST
'I accidentally broke your spear' *involuntary Agent*

b. *Nganhi wagi-ːdhi naaybu-unh*
1SG.ACC cut-ANTIC.PST knife-INS/ERG
'I got cut on the knife' *inanimate Agent*

In a small number of languages, constructions with an anticausative verb can be used with inanimate Agents, but not with involuntary Agents. This is the case, for instance, in Ulwa (Nicaragua, Misumalpan, Koontz-Garboden 2009, p.c., Green 1999: 115-116, p.c.). Example (65a) shows an

anticausative-marked verb, and an inanimate Agent and a human Patient that are marked as the A and the O of a transitive clause (note that NNOM stands for non-nominative).[5] The anticausative function of the marker in question is illustrated in (65b).

ULWA (Green 1999: 477)

(65) a. *Mâ daih-ka yâ dâ-w-ida*
sun hot-ADJ 1SG.NNOM burn-ANTIC-3SG.PST
'The sun burned me' *inanimate Agent*

b. *Atak ya bah-w-ida*
stairway DEF break-ANTIC-3SG.PST
'The stairway broke' *anticausative*

A similar phenomenon is found in Samoan (Pacific, Austronesian, Mosel & Hovdhaugen 1992: 738–740) and Korean (Korea, Korean, Yeon 2003: 116–133). In this language, inanimates cannot be construed in A function, as was mentioned above in chapter 3, section 3.2.1. Instead, one can use a construction with an anticausative-marked verb, as is illustrated in example (66a). The Patient is nominative-marked, and the inanimate Agent is marked by the agentive *-ey*. The anticausative function of the marker is illustrated in (66b) (see also Lee 1993: 294–306).

KOREAN (Yeon 2003: 129, 116)

(66) a. *Minho-ka khal-ey ccilu-i-ess-ta*
Minho-NOM sword-AGT pierce-ANTIC-PST-PLN
'The sword pierced Minho' *inanimate Agent*

b. *Mun-i (cecello) yel-li-ess-ta*
door-NOM (spontaneously) open-ANTIC-PST-PLN
'The door opened (spontaneously)' *anticausative*

According to Klaiman (1984: 339) this construction can also be used with a human Agent, provided that the Patient is "not less powerful" than the Agent, "yet exercises no actual control over the action". In at least one example, quoted below as (67), this seems to boil down to an interpretation of involuntary Agent.

[5] Koontz-Garboden (2009) reports that the Patient is realized as an S in other clauses, while the involuntary Agent is marked as an agentive oblique.

KOREAN (Klaiman 1984: 339)

(67) *Cə salam-ɨi tiŋ-i kɨ yəca-eke*
DEM man-GEN back-NOM DEM woman-AGT
kɨlk-hi-əss-ta
scratch-ANTIC-PST-PLN
'The woman scratched the man's back [accidentally]'
involuntary Agent

In this section, I have shown that constructions with an anticausative-marked verb can also be used with inanimate Agents, albeit not as frequently as with involuntary Agents.

4.1.3 Anticausative voice: related phenomena

So far, I have discussed constructions that use an overt anticausative marker. This section focuses on two related phenomena. First, I discuss a construction type that is characterized by the presence of a lexically intransitive verb instead of an anticausative-marked verb. Second, I discuss constructions with a verbal marker that is strictly speaking not an anticausative, but that is associated with similar semantics.

First, languages where the presence of an involuntary Agent triggers the use of constructions with an anticausative-marked verb sometimes also allow underived intransitive verbs in these constructions. Crucially, these intransitive verbs are semantically always parallel to anticausative-marked verbs in that they typically denote events characterized by the same combination of semantic features. They express how a Patient participant is affected by an action where no Agent is involved. Possible meanings are, for instance, 'fall' or 'melt'. In the literature, such verbs have been characterized as 'unaccusative' (see e.g. Levin & Rappaport Hovav 1996) or 'inchoative' (see e.g. Haspelmath 1993b). Guugu Yimidhirr is a good illustration of a language with this phenomenon. In Guugu Yimidhirr, the presence of an involuntary Agent can lead to the use of a construction with a derived anticausative verb, as was shown in example (52b), repeated below as (68a). The same construction also occurs with a lexically intransitive verb with similar semantics as derived anticausative verbs, as is illustrated in example (68b).

GUUGU YIMIDHIRR (Haviland 1979: 126)

(68) a. *Ngadhun.gal galga nhanu dumbi-:dhi*
1SG.ADESS spear[ABS] 2SG.GEN break-ANTIC.PST
'I accidentally broke your spear' [Your spear broke and I was involved] *derived verb*

b. *Nhanu minha gundil buli ngadhun.gal*
2SG.GEN.ABS meat[ABS] egg[ABS] fall.PST 1SG.ADESS
'I dropped your edible egg by accident' [Your edible egg fell and I was involved] *underived verb*

The same phenomenon is also found in Finnish (Kittilä 2005, p.c.), Hinuq (Forker 2010: 460–461) and Lezgian (Haspelmath 1993a: 291–293, p.c.). The following examples are from Lezgian. Examples (69a) and (69b) both have an intransitive verb and a patientive S, while the participant that is interpreted as the involuntary Agent is adelative-marked. Note that the verbs used in these constructions are clearly intransitive; regular transitive verbs are ruled out.[6] This is illustrated by the ungrammaticality of (69c), with the transitive verb 'open'.

LEZGIAN (Haspelmath 1993a: 292)

(69) a. *Dide.di-waj nek alax̂-na*
mother-ADEL milk[ABS] boil_over-AOR
'Mother involuntarily allowed the milk to boil over'

b. *Zamira.di-waj get'e xa-na*
Zamira-ADEL pot[ABS] break-AOR
'Zamira broke the pot accidentally/involuntarily'

c. * *Taibat.a-waj rak aq^{h}aj-na*
Taibat-ADEL door[ABS] open-AOR
'Taibat accidentally opened the door' *'to open' = transitive*

Some languages only have the construction with a lexically intransitive, underived verb, and not its counterpart with a derived anticausative verb. This can be illustrated with the following examples from German

[6] This is why the constructions in (69) should not be interpreted as evidence for volitionality-DAM, as was argued in section 3.1.3.

(Germany, Indo-European). (70a) is a construction with a lexically intransitive verb and a patientive S, while the participant that can be interpreted as the involuntary Agent is dative-marked. As shown by example (70b), the verb in question is intransitive: it takes a patientive S and denotes a spontaneous event (Schäfer 2008: 41ff).

GERMAN (Schäfer 2008: 42–43)

(70) a. *Ihm zerplatzte der Ballon*
him.DAT burst.PST the[NOM] balloon[NOM]
'He accidentally popped the balloon'[7]

b. *Der Ballon zerplatzte*
the[NOM] balloon[NOM] burst.PST
'The balloon popped'

The same phenomenon also occurs in Agul (Caucasus, Nakh-Daghestanian, Ganenkov et al. 2008), in Tashelhiyt (Morocco, Afro-Asiatic, Rapold 2010: 361–362) and in Hindi (India, Indo-European Montaut 2004: 210–211). Hindi is somewhat special in that the lexically intransitive verb seems to be combined with the passive auxiliary.

This construction with an involuntary Agent and an intransitive verb stands out because it is not readily contrasted with a parallel construction with a volitional Agent. Apart from this, there are clear similarities with the anticausative constructions, since the intransitive verbs have the same semantic features as anticausative-marked ones.

It should be noted that there is evidence to suggest that a similar construction is also possible with inanimate Agents. My data are rather limited, however, and it seems that in most cases the participant is an abstract cause that does not act on the Patient in a direct way. This is illustrated in example (71) from Hare (Slave) (Canada, Na-Dene, DeLancey 1984).

HARE (SLAVE) (DeLancey 1984: 189)

(71) *'Éyayi k'é lánįwe*
disease CAUSL die.3SG.PST
'She/he died from sickness'

[7] In this example, the involuntary Agent can also be interpreted as a Maleficiary, as in example (56) from Spanish.

For this reason, this particular phenomenon is not considered in this dissertation.

The second type of phenomenon to be discussed in this section relates to the use of markers that are strictly speaking not anticausatives. As explained at the beginning of section 4.1, anticausative markers are defined in both syntactic and semantic terms. Syntactically, they are valency reducers, and semantically, they derive structures where a Patient is affected by an action that takes place spontaneously, without the involvement of an instigator. In some languages, constructions associated with involuntary and inanimate Agents use a verbal marker that is not a valency reducer, but associated with similar semantics. This phenomenon occurs, for instance, in St'át'imcets, also known as Lillooet (Canada, Salish, Davis et al. 2009, van Eijk 1997). As illustrated in examples (72a) and (72b), the circumfix *ka-...-a* is used in constructions with involuntary and inanimate Agents. This circumfix is not a valency reducer, but it is associated with anticausative-like semantics, as shown in (72c). In this example, the marker is used in order to emphasize that there is no Agent who initiates and controls the squishing of the raspberries and the denting of the pot (Davis et al. 2009). This implies that the marker is used with events that take place spontaneously. For this reason, it is glossed here as SPONT.[8]

ST'ÁT'IMCETS (Davis et al. 2009: 212–213, 215)

(72) a. *Ka-sek'w-s-as-a* *ta=nk'wanusten'=a*
SPONT-break-CAUS-3ERG-SPONT DET=window=EXIS
ta=tweww'et=a
DET=boy=EXIS
'The boy broke the window accidentally' *involuntary Agent*

b. *Ka-zík-s-as-a* *ta=sráp=a*
SPONT-topple-CAUS-3ERG-SPONT DET=tree=EXIS
ta=qv̲lalhtmícw=a
DET=storm=EXIS
'The storm toppled the tree' *inanimate Agent*

[8]The traditional terminology is 'out-of-control' (van Eijk 1997, Davis et al. 2009).

c. *Ka-lhót-a aylh i=s7áy'tsqw=a nilh*
SPONT-get.squished-SPONT then PL.DET=raspberry=EXIS FOC
ka-téqw=s-a
SPONT-dent=3POSS-SPONT
ti=n-tsq-ús-tn=a
DET=LOC-put.down-face-thing=EXIS
'The raspberries got squished and the pot got dented'
spontaneous

A similar phenomenon is found in Beg'ak (Malaysia, Austronesian, Goudswaard 2005: 194–200) and in Semelai (Malaysia, Austro-Asiatic, Kruspe 2004: 140–142).

In this section, I have discussed anticausative constructions and a number of related phenomena. In each of these constructions, the verb is associated with what can be called 'anticausative semantics', either lexically or as the result of overt marking. This means that the verbs in question typically denote one-participant events where no Agent participant is involved. In section 5.2.1, I will argue that these semantics are crucial when accounting for these phenomena.

4.2 Completive aspect

As noted earlier, markers found in constructions with involuntary and inanimate Agents can also be associated with aspectual functions (see also Fauconnier forthcoming). In a number of languages from my sample, the presence of an involuntary or inanimate Agent can trigger the use of a marker associated with completive aspect. The term 'completive aspect' is to be interpreted in the sense of Bybee et al. (1994: 57): it emphasizes that the action represented by the verb was carried out to completion (see also Dahl 1995: 95). It is important to note that these markers merely serve to stress completion: omitting them does not necessarily mean that the action was not completed. While this observation is not crucial at this point, it will be relevant for the discussion in chapter 5.

The use of completive markers in clauses with involuntary Agents can be illustrated with the following examples from Bengali (Bangladesh, Indo-European). Examples (73a) and (73b) represent clauses with an involuntary

and inanimate Agent, respectively. They contain the auxiliary *fɛla*, which is a marker that stresses the total completion of an action, as illustrated in example (73c) (Ghomeshi 1991). As mentioned above, the use of this auxiliary is optional, in order to explicitly emphasize completion. Clauses without the auxiliary can also be interpreted as denoting a completed action, but in that case its completion is not stressed. This is illustrated in (73d).

BENGALI (Basu & Wilbur 2010: 2, 9, Ghomeshi 1991: 343)

(73) a. *Ami bʰat puɹ-e fele čʰi-l-am*
1SG rice burn-PRF.PTCP COMPL be-PST-1SG
'I accidentally burned the rice' *involuntary Agent*

b. *Bataš fuldani-ṭi bʰeŋ-e fele čʰi-l-o*
wind vase.DEF break-PRF.PTCP COMPL be-PST-3SG
'The wind broke the vase' *inanimate Agent*

c. *John aam-ta khe-ye fel-l-o*
John mango-CLF eat-PRF.PTCP COMPL-PST-3SG
'John ate up the mango' *completive*

d. *John aam-ta ket-e khe-l-o*
John mango-CLF cut-PRF.PTCP eat-PST-3SG
'John cut the mango and ate it' *no overt completive marker*

It should be noted that constructions with the completive auxiliary *fɛla* can be associated with other more specific interpretations as well. Since these other interpretations will be relevant for the discussion of this phenomenon in chapter 5, I will briefly discuss them here. As shown in example (74a), the auxiliary can also be used in clauses with what I will refer to as "manage-to" semantics (see also Davis et al. 2009). Such clauses represent actions that were difficult to complete and required a lot of effort. They can usually be paraphrased in English using *manage to*. Furthermore, the auxiliary can also be used in clauses where the completion of the action is seen as surprising. In (74b), for instance, the speaker indicates that she had finished cooking rice earlier than expected.

BENGALI (Ghomeshi 1991: 351,365)

(74) a. *Ali Hasan-ke ragie fele*
Ali Hasan-ACC make.angry.PRF.PTCP COMPL.PRF.PTCP
čʰi-l-o
be-PST-3SG
'Ali [finally] made Hasan angry [e.g. after hours of trying]'
manage-to

b. *Ami ek gʰonṭar pitore bʰat ranna.kore fele čʰi-l-am*
1SG one hour within rice cook.PTCP COMPL be-PST-1SG
'I had already finished cooking rice in one hour' *surprise*

Although the use of the auxiliary *fɛla* can lead to a number of different interpretations, one element remains constant: when the auxiliary is used, it indicates that the action was fully completed.

Other languages where completive auxiliaries can be used in clauses with involuntary Agents are Japanese (Japan, Japanese, Abe 2007, Ono 1992, Ono & Suzuki 1992, Kaiser et al. 2001, Yoshida 1993, Strauss 2002, 2003), Korean (Korea, Korean, Strauss 2002, 2003), Kannada (India, Dravidian, Schiffman 1983: 83–84, Sridhar 1990: 230–231), Mandarin (China, Sino-Tibetan, Chen 1996: 442, Teng 1975: 134–137, Hsiao 2004) and Burmese (Myanmar, Sino-Tibetan, Okell 1969: 358–359, Jenny p.c.). In these languages, too, the use of the auxiliary is not limited to clauses with involuntary Agents. Again, other possible interpretations include manage-to and surprise. Only one language, Kannada, uses the completive auxiliary in clauses with inanimate Agents as well.

This phenomenon is not limited to languages from Asia but also occurs in Squamesh (Canada, Salishan, Jacobs 2011). In this language, the verbal suffix *-nexw* is used to mark the completion of an action, as in example (75a). Here, too, the use of this marker is optional, in order to explicitly emphasize completion. Example (75b) shows that this completive suffix is used in clauses with involuntary Agents. As in Bengali, the same suffix can also lead to a manage-to interpretation, as in (75c). In addition, it is optionally used in clauses with inanimate Agents, as illustrated in (75d).

SQUAMESH (Jacobs 2011: 3, 124, 192, 193)

(75) a. *Na míkw'-nexw-ø-as ta snexwílh*
REAL clean-COMPL-3O-3A DET canoe
'He finished washing his canoe' *completive*

b. *Na x̱ép'-nexw-ø-as ta lapát*
REAL hit-COMPL-3O-3A DET cup
'He broke the cup by accident' *involuntary Agent*

c. *Chen kwélash-nexw-ø ta sx̱wí7shen*
1SG.NOM shoot-COMPL-3O DET deer
'I managed to shoot the deer' *manage-to*

d. *Na k̓ép'-nexw-Ø-as ta spahím' ta shewálh*
REAL shut-COMPL-3O-3A DET wind DET door
'The wind shut the door' *inanimate Agent*

In some languages, one single marker combines an anticausative function with an aspectual function. This is the case for Indonesian (Indonesia, Austronesian). In section 4.1, Indonesian was included among the languages that use an anticausative marker in clauses with involuntary and inanimate Agents. This is illustrated in the following examples. Examples (76a) and (76b) show that the verbal prefix *ter-* is used in clauses with involuntary and inanimate Agents. Example (76c) illustrates the anticausative function of this marker.

INDONESIAN (Arka & Manning 2008: 51, de Vries 1983: 167, Salim et al. 1988: 308)

(76) a. *La ter-tembak oleh teman-nya*
3SG ANTIC-shoot AGT friend-3SG.POSS
'He was accidentally shot by his friend' *involuntary Agent*

b. *Pintu ter-buka oleh angin*
door ANTIC-open AGT wind
'The wind opened the door' *inanimate Agent*

c. *Pintu ter-buka*
door ANTIC-open
'The door opened' *anticausative*

This prefix *ter-* is also associated with aspectual functions, however. In constructions like (76c), it can also have a stative-resultative reading, as illustrated in (77). In this case, the verb is interpreted as denoting a state that is the result of a completed action (Sneddon 1996, Salim et al. 1988, de Vries 1983).

INDONESIAN (Salim et al. 1988: 308)

(77) *Pintu ter-buka*
door ANTIC-open
'The door is open' *stative-resultative*

Note that such a correlation between anticausative voice and resultative aspect is not uncommon cross-linguistically. Haspelmath (1987: 32) points out that they frequently go hand in hand. He argues that since anticausatives suppress agentivity, dynamism is likely to be lost as well. What is especially interesting here, however, is that, according to Arka (2005), *ter-* has a more general completive meaning, that lies at the basis of the stative-resultative reading represented in (77). He argues that *ter-* explicitly indicates the succesful completion of an action. This is illustrated in (78).[9]

INDONESIAN (Arka 2005: 11)

(78) *Perampok itu di-tembak berapa kali, tetapi tidak ter-tembak*
robber DEM PASS-shoot several times but NEG ANTIC-shoot
'The robber was shot several times but he was not shot successfully' (i.e. he was not hit)

A similar phenomenon is attested in Tagalog (Philippines, Austronesian). In this language, there is a verbal prefix *ma-*, that is used in clauses with involuntary and inanimate Agents.[10] This prefix is also found in clauses similar to (77), which express a state that is the result of a completed action (Himmelmann 2006). According to Himmelmann (p.c.), it

[9]Note that the gloss ANTIC is probably not the most appropriate one here. I still use it in order to highlight that this is the same verbal marker as in the other examples.

[10]This prefix might be a cognate of the Puyuma anticausative marker *mu-* (see the examples in (53) on page 65), but it does not function in the same way.

can also be associated with anticausative semantics.[11] Furthermore, Dell (1983–1984) argues that it signals the succesful completion of an action. Finally, *ma-* can also be used in clauses with manage-to semantics (Himmelmann 2006, Dell 1983–1984). Tagalog and Indonesian thus show that the completive phenomenon and the anticausative phenomenon can be combined.

In this section, I have shown that in some languages, it is possible to use a marker of completive aspect in constructions with involuntary Agents. In some of these languages, this is possible with inanimate Agents as well.

4.3 Dedicated markers

In this section, I discuss languages that have a dedicated verbal marker of involuntary Agency. Unlike the markers discussed before, the markers discussed here are used exclusively to indicate the presence of an involuntary Agent; they do not have a more general function. This phenomenon can be illustrated with the following examples from Chrau. In example (79a), with an involuntary Agent, the verb is marked using the "unintentional affix" *ta-*, glossed here as INVL, 'involuntary'. This affix is not present in clauses with a volitional Agent, as illustrated in example (79b) (Thomas 1969).

CHRAU (Thomas 1969: 98)

(79) a. *Ănh ta-pâm něh*
1SG INVL-hit 3SG
'I accidentally hit him'

b. *Ănh pâm něh*
1SG hit 3SG
'I hit him'

The same phenomenon is also found in Pacoh (Vietnam, Austro-Asiatic, Watson 1966), Wappo (United States, Wappo-Yukian, Thompson et al. 2006: 74), Tunumiisut (Greenland, Eskimo-Aleut, Mennecier 1995: 413) and in Tanacross (United States, Na-Dene, Holton 2000: 191–192, 241, p.c.). In

[11] I did not mention Tagalog in section 4.1.1, which discusses the use of anticausative markers in clauses with involuntary Agents. The reason is that the anticausative function of *ma-* is not entirely clear (Himmelmann p.c.).

Tanacross, however, the dedicated marker is combined with anticausative marking (see section 4.1.1).

In some cases, the dedicated marker of involuntary Agency can have an effect on the valency of the verb. This is the case, for instance, for Abkhaz (Caucasus, Northwest Caucasian). In clauses with an involuntary Agent, the transitive verb is marked using the prefix *amχa-*, as illustrated in (80). Hewitt (2008, 1979: 197–198) argues that verbs with this prefix have a cross-referencing pattern that is different from regular, unmarked transitive verbs. Whereas unmarked transitive verbs have ergative cross-referencing for A and absolutive cross-referencing for O, clauses like (80) have a dative-marked involuntary Agent and an absolutive-marked Patient.[12]

ABKHAZ (Hewitt 2008: 81)

(80) *ɑ-bħʷa-'gʷaʁʲ-kʷa ø-j-amχa-'fa-ø-za-r*
DEF-plum-stone-PL 3PL.ABS-3SG.DAT-INVL-eat-PST-if
'If he ate the plum-stones accidentally...'

Mam (Guatemala, Mayan) shows a similar phenomenon. In this, languages, there are two involuntary affixes, *-njtz* and *-j*. When one of them is attached to the verb, the involuntary Agent is marked with an agentive preposition, while the Patient is realized as S (England 1983: 112-113, 203-206), as illustrated in (81).

MAM (England 1983: 203)

(81) *Na ø-tzeeq'a-njtz Cheep t-u7n Kyel*
PST 3SG.ABS-hit-INVL José 3SG-OBL Miguel
'Miguel accidentally hit José'

The same holds for the Madurese (Indonesia, Austronesian) involuntary prefix *ta-*. Unlike the Mam affixes, however, this prefix can also be associated with a transitive case frame. If this is the case, the involuntary Agent and the Patient are marked as A and O (Davies 2010: 277–279).[13]

[12] Hewitt (2008, 1979) uses the terms 'set I', 'set II' and 'set III' instead of absolutive, dative and ergative. I adopt the latter terms here because set I is associated with S and O arguments, set II with Beneficiaries and set III with A arguments.

[13] This marker *ta-* is possibly a cognate of the Indonesian marker *ter-*, which does have an anticausative function. For the Madurese *ta-*, such an anticausative function cannot be recognized, however.

In some languages, there is a dedicated marker of involuntary Agency that appears to have the opposite effect. Instead of demoting the A argument of a transitive verb, it adds an A argument to an intransitive verb. As a result, the marker can be characterized as an 'involuntary causative'. This is illustrated in the following examples from Khmu (Laos, Austro-Asiatic). In example (82a), the intransitive verb 'fall' has the marker *tòk*. This marker transitivizes the verb by adding an A argument, which represents an involuntary Agent. In Khmu, this involuntary causative marker contrasts with the volitional causative prefix *p-*, illustrated in example (82b) (Svantesson 1983: 103–107).

KHMU (Svantesson 1983: 106, 107)

(82) a. *Kə́ə tòk ksés ktáŋ*
3SG INVL.CAUS fall jar
'He accidentally dropped the jar' *involuntary Agent*

b. *Kə́ə p-háan tráak*
3SG CAUS-die buffalo
'He slaughtered the buffalo' *volitional Agent*

A similar phenomenon is found in Oklahoma Cherokee (United States, Iroquoian, Montgomery-Anderson 2008: 381–382) and Mamaindê (Brazil, Nambikuaran, Eberhard 2009: 377).

Mapudungun (Chile, Araucanian, also known as Mapuche) shows a slightly different phenomenon. The causative suffix *-l* normally signals volitional causation, deriving verbs like 'fill' from the intransitive 'become full'. With a couple of verbs, however, it signals involuntary causation (e.g. 'loosen accidentally' from 'get loose'). Interestingly, these verbs are all ambitransitive or labile verbs, i.e. their underived form can be both intransitive or transitive ('loosen' or 'get loose'). The causative meaning can thus be expressed without the overt marker *-l*. It seems that in these cases, *-l* can come to fulfill the related but slightly different function of involuntary causative marker (Zúñiga 2010, Smeets 2008: 299–301).

In the languages mentioned in this section, the dedicated marker is always limited to constructions with involuntary Agents and cannot be used with inanimate Agents. The only language in my sample where this is not the case is Tukang Besi (Indonesia, Austronesian). In clauses like (83),

the presence of the verbal prefix *te-* indicates that the single argument of the verb was accidentally affected by the action. In most cases, this implies that action was caused by a natural force, but when asked speakers also accept contexts where an involuntary Agent was responsible. However, it is never possible to overtly express an inanimate or involuntary Agent as part of the clause (Donohue 1999a: 278–280, p.c.).

TUKANG BESI (Donohue 1999a: 279)

(83) *No-te-nabu-mo na kaluku*
3.REAL-INAN-drop-PRF NOM coconut
'The coconut happened to fall' [through forces of nature, such as a storm]

Tukang Besi also has a marker that appears to be limited to involuntary Agents only. There is a verb *sala*, meaning 'do accidentally', which can be combined with a regular verb in order to express involuntary Agency (Donohue 1999a: 213). This is illustrated in (84).

TUKANG BESI (Donohue 1999a: 213)

(84) *No-sala-'ita te boku*
3.REAL-INVL-see core book
'They happened to see the book'

This concludes the chapter about the verb-related phenomena. These data, as well as those presented in chapter 3 (see the overview in appendix B), are analyzed in the next chapter.

5

Different phenomena, different motivations

In chapters 3 and 4, I showed that there is a diverse range of phenomena associated with involuntary and inanimate Agents cross-linguistically. These phenomena can pertain to the marking of the A argument, or to the marking of the verb. From the perspective of the predictions made by Malchukov (2006), this is somewhat surprising. According to his 'relevance principle', semantic features are typically marked on that part of the clause to which they pertain (see section 2.1.1). Features such as tense or aspect, for instance, are related to the verb, so they are expected to be primarily marked at the level of the verb. The data I presented in the previous chapters appear to violate this principle. The features of animacy and volitionality do not show a tendency to be connected to one single type of phenomenon. Instead, they can have different effects on different parts of clause structure. In this chapter, I will account for this variation by disentangling the semantic motivation behind the different phenomena. I will argue that each of these phenomena is connected to a distinct semantic concept, that can be linked to involuntary and inanimate Agents in different ways.

This chapter is divided in two main sections. Section 5.1 focuses on the A-related phenomena discussed in chapter 3. I argue that they are a direct effect of animacy, since they arise as a result of the low semantic compatibility between inanimates and the Agent role. Next, section 5.2

deals with the verb-related phenomena outlined in chapter 4. I argue that anticausative and completive constructions are linked to volitionality and animacy in a more indirect way. For the anticausative constructions, I will argue in section 5.2.1 that they are primarily connected to the semantic concept of uncontrolled events, of which involuntary and inanimate Agents are possible instantiations. Completive constructions, on the other hand, are used in order to express unexpectedness, with which actions instigated by involuntary and inanimate Agents can be associated (section 5.2.2). While the anticausative and the completive strategies have distinct motivations, I argue in section 5.2.3 that they share a similar underlying principle, which is related to an emphasis on the endpoint of the action.[1]

5.1 Accounting for the A-related phenomena

In this section I discuss the motivation behind two groups of A-related phenomena outlined in chapter 3. First, there is the group of DAM phenomena, where the case marking used for inanimate A arguments is different from the case marking used for animate As. This is illustrated in the following examples from Samoan (Mosel & Hovdhaugen 1992). In the structure in (85a), the inanimate A argument 'wind' has instrumental–locative marking. Animate A arguments, by contrast, take ergative marking, as in (85b).[2]

SAMOAN (Mosel & Hovdhaugen 1992: 423, 425)

(85) a. *Na tapuni i le matagi le faitoto'a*
PST close INS/LOC ART wind ART door
'The wind closed the door'

b. *Fau loa le pā e Lā'ulu*
fix then ART hook ERG Lā'ulu
'Then Lā'ulu fixed the hook'

Second, there is a group of phenomena that relates to the incompatibility between inanimate participants and the A function. In some languages,

[1] Some of the analyses argued for in this chapter are revised versions of those discussed in Fauconnier (2011a,b, forthcoming).

[2] Note that inanimate A arguments can optionally take ergative marking instead of instrumental–locative marking (Mosel & Hovdhaugen 1992: 424ff.)

inanimates cannot be construed as A arguments at all. This is illustrated in example (86) from Korean, which shows that clauses with an inanimate A argument are ungrammatical. In the remainder section of this section, I will use the label 'restriction phenomena'.

KOREAN (Yeon 2003: 129)

(86) * *Khal-i* *Minho-lul* *ccilu-ess-ta*
sword-NOM Minho-ACC pierce-PST-PLN
'The sword pierced Minho'

A comprehensive analysis of these phenomena needs to take into account four additional observations. First, animacy-DAM can be combined with DAM governed by focus (see section 3.1.2.2). In this case, special case marking is not only used with inanimate A arguments, but also with focal animate A arguments. This is illustrated in the examples from Waskia in (87). Example (87a) shows that A arguments are zero-marked in transitive clauses. In (87b), by contrast, the A argument is ergative-marked because it is inanimate, and in (87c) it is ergative-marked because it is in contrastive focus.

WASKIA (Ross & Paol 1978: 30, 37)

(87) a. *Gagi arak mait se batagam*
Gagi net knife INS tear.PST
'Gagi tore the net with a knife'

b. *Yugar ke kawam kodang kagagam*
wind ERG house door open.PST
'The wind opened the house-door'

c. *Mela, Gagi ke Madang urat biteso*
no, Gagi ERG Madang work do.3SG
'No, it is Gagi who works in Madang'

Second, animacy-DAM is never combined with volitionality-DAM, i.e. there are no systems where both involuntary and inanimate A arguments take special case marking that is not used with human, volitional A arguments. Third, animacy-DAM is rather infrequent cross-linguistically. Finally, both the DAM phenomena and the restriction phenomena can affect

the distinction between animates and motive inanimates on the one hand and non-motive inanimates on the other hand, instead of the distinction between animate and inanimate participants. This is less clearly attested for the DAM phenomena than for the restriction phenomena, however. Explaining the full range of these observations is the main goal of this section. In 5.1.1, I argue that existing approaches cannot satisfactorily account for all of them together. Section 5.1.2 proposes an alternative account.

5.1.1 Existing approaches

In this section, I argue that existing approaches cannot explain the full range of phenomena discussed in this study. As mentioned in 2.1, these approaches can be divided into a 'markedness' group on the one hand, and a 'transitivity' group on the other hand. The main difference between these two groups is in the type of properties that are taken into account (see Næss 2007: 30–32). The markedness approaches focus on *inherent* properties of noun phrases, and how they correlate with the functions of A and O. For instance, it is argued that the A function is typically associated with animate NPs, and as a result inanimate A arguments are regarded as marked. This implies that these approaches do not discuss the role of animacy in terms of its impact on event semantics. By contrast, this is the perspective that is adopted by many of the transitivity approaches. They focus on *relational* properties, which relate to the way a participant is involved in an event. From this perspective, inanimate Agents are unusual because they do not act in the same way as their animate counterparts. In what follows, I will first make a number of general comments about these approaches, and next explain the problems that arise when confronting them with the different phenomena.

First, as already mentioned, the markedness approaches predict the existence of animacy-DAM because the association between the A function and inanimate NPs is regarded as marked (see e.g. Silverstein 1976, Comrie 1989 [1981], Croft 1988, Aissen 2003). What is problematic about these approaches is that they are not always very specific about the basis of this markedness. Comrie (1989 [1981]: 128) appears to suggest an explanation in terms of frequency: inanimate A arguments are less frequent than animate ones, so they are more likely to be marked differently. The reasons

for this low frequency are not commented on, however. Aissen's (2003: 438) explanation appears to be more oriented towards semantics rather than frequency. She suggests that inanimate referents are marked for A arguments because such arguments are associated with "agenthood", but she does not make it clear how animacy interacts with this notion. Another problem is found in those approaches where markedness is connected with ambiguity: de Hoop & Malchukov (2008) and Malchukov (2008), for instance, argue that DAM can arise as a result of the discriminatory function of case marking (see also Comrie 1989 [1981]). In these approaches, it is typical for O arguments to be inanimate, while animacy is typical for A arguments. This implies that inanimate A arguments are more likely to be confused with the O argument than their animate counterparts, as they exhibit a feature that is normally associated with O. As a result, inanimate A arguments are more likely to be overtly marked than their animate counterparts, in order to clearly distinguish them from the O argument of the clause. It is problematic to consider ambiguity as the driving force behind DAM, however. As argued by Moravcsik (1978b) and Plank (1980), languages generally have a high tolerance for ambiguity in the marking of A and O. In addition, there is usually not much scope for genuine ambiguity when the entire linguistic context is considered, and not just the clause in isolation. What is more, ambiguity avoidance cannot explain DAM phenomena with an alternation between two overt cases, as attested for, for instance, Samoan (see the examples in (85) above) (see also Malchukov 2008).

Second, there is a group of 'transitivity' approaches (mainly Næss 2004, 2007) which analyze inanimate A phenomena from the perspective of relational semantic features. Næss argues that inanimate Agents are likely to receive special treatment because they act involuntarily. Hence, they do not conform to the Agent prototype, for which volitionality is an important feature. This special treatment may be related to either DAM or to restriction phenomena. This approach is clearly and convincingly articulated, but it makes certain predictions that are not borne out, as will be argued in the next paragraphs.

Of the phenomena described in chapter 3, the rarity of animacy-DAM is the most problematic finding for both groups of approaches. In transitivity approaches, it is not clear why inanimate As do not receive special case marking more often when they show an important deviation

from the Agent prototype. Similarly, in the markedness approaches, it is not clear why the functional markedness of inanimate A arguments, whatever its basis, does not translate into animacy-DAM more often. This is especially problematic in comparison with DOM. As mentioned in the introduction, markedness approaches treat DAM and DOM as each other's mirror image. Comrie (1989 [1981]) and Aissen (2003), for instance, predict DAM phenomena as a result of the markedness of inanimate A, as well as DOM phenomena as a result of the markedness of animate O. Unlike DAM, these DOM phenomena are very well-attested cross-linguistically (Bossong (1985) already mentions more than 300 attestations). This clear difference in the frequency of these phenomena is not anticipated in the markedness approaches, and it cannot easily be accounted for.

So far, only Malchukov (2008), who combines the markedness approach with the transitivity approach, explicitly addresses the question why animacy-DAM is so rare. He argues that DAM related to the markedness of inanimate As is rare because it results from ambiguity avoidance, and languages prefer to use disambiguating devices other than case marking, such as word order and agreement. It is not entirely clear how this solves the issue at hand, however. Why does the markedness of animate Os result in DOM much more often than the markedness of inanimate As does in DAM? If languages use devices other than case marking to disambiguate between arguments, these devices should in principle be available for both A and O. Furthermore, Malchukov (2008) argues that DAM resulting from the lack of volitionality of inanimate Agents is rare because it is semantically redundant to mark animacy, as this is an inherent feature of participants. He thus suggests implicitly that this type of DAM is more often attested with involuntary human As than with inanimate As. This is not in line with the data, however: as argued in section 3.1.3, volitionality-DAM is not reliably attested. In addition, this argument does not explain why DAM is much less common than DOM, either. If DAM is rare because marking animacy is semantically redundant, one could wonder why the same does not hold for DOM.

Another phenomenon that cannot be explained in markedness and transitivity approaches is the combination of animacy-DAM and focus-DAM in one single system. In the transitivity approaches, it is not clear how a feature of discourse prominence can interact with relational semantic features, which concern the involvement of a participant in an event.

In the markedness approaches, there is an expectation that animacy is combined with another feature in DAM systems, but this other feature is definiteness rather than focus (see section 2.1.2). It is argued that indefinite A arguments are unnatural or marked, just like inanimate A arguments (see e.g. Comrie 1989 [1981], Aissen 2003). Such a combination of animacy-DAM and definiteness-DAM is not attested in the sample, however (see also Fauconnier 2011a, Comrie 1989 [1981]: 130). In addition, it is not clear whether it is possible to simply replace the feature of definiteness with focus. This is what Malchukov (2008) appears to suggest when he argues that focal A arguments are marked in terms of frequency, because A arguments are most often given in discourse (referring to Du Bois 1987). This is somewhat problematic, however, because the contrast between focal and non-focal A arguments does not necessarily boil down to a contrast between given and new (see also Verstraete 2010).

To round off, there are also a few problems which are specific to only one group of approaches. First, the lack of volitionality-DAM is problematic for transitivity approaches. In Næss's (2007) account, animacy-DAM is expected because inanimate Agents act involuntarily. As a result, a similar phenomenon is expected for involuntary human Agents, because they also show involuntary involvement in events. The analysis in section 3.1, however, has shown that animacy-DAM is never combined with volitionality-DAM, and that volitionality-DAM is not reliably attested by itself. This raises the question if volitionality really is the relevant semantic feature here. Second, the distinction between motive and non-motive inanimates attested in our sample is hard to account for in the markedness approaches. It is argued that inanimate A arguments are marked, but a further distinction within the category of inanimates is not mentioned. Furthermore, it is not clear whether this distinction could be integrated in these approaches, because this would imply a violation of the principle of symmetry between A and O. The distinction is relevant for the encoding of A arguments, but it has so far not been claimed to be relevant for the encoding of O arguments in any way.

Summing up, existing approaches fall short in explaining the full range of data that were discussed in chapter 3. In the next section, I propose an analysis that approaches the phenomena under discussion from a different perspective.

5.1.2 An alternative account: inanimates are atypical as Agents

In this section, I propose an analysis that aims to account for all of the A-related phenomena under discussion. This approach is based on the semantic compatibility between inanimate participants and the Agent role. In a nutshell, I will argue that the inherent identity of inanimate participants is not readily associated with the relational semantic features that are characteristic of Agents, namely instigation and transmission. Because of this, it is atypical for inanimates to be construed as A arguments, since this is the syntactic function that is most directly connected to the Agent role (see section 2.2). This can result in the systematic avoidance of inanimate A arguments (restriction phenomena), or in the use of special case marking, in order to draw attention to their atypical identity (DAM phenomena). This implies that, in my account, animacy is not relevant as a feature that affects the involvement of a participant in an event, but as a feature that affects the participant's compatibility with the Agent role. Put differently, the main issue is not how inanimates act compared to animates, but how likely it is for them to be selected as Agents in the first place. In section 5.1.2.1 I will discuss the semantic basis of my account, namely the low compatibility between inanimates and the Agent role, in more detail. Next, section 5.1.2.2 explains how this approach can account for the diverse set of phenomena connected to inanimate A arguments. Finally, in section 5.1.2.3 I present two short case studies from Meithei and Fongbe that provide further support for my analysis.

5.1.2.1 Low compatibility between inanimates and the Agent role

In this section, I explain why inanimate participants are not readily compatible with the Agent role. In section 2.2, Agents were defined on the basis of prototypical transitive events, where an action is effectively transferred from one participant to another. This concept was visualized in figure 2.3, repeated here as 5.1.

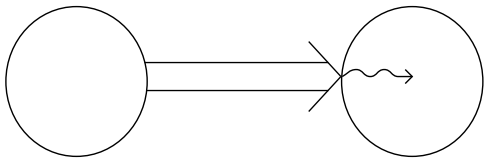

Figure 5.1: Prototypical transitive events as visualized by Langacker (1990: 211)

Starting from this notion of transitive events, the Agent role was decomposed in two features, namely instigation and transmission. The feature of instigation implies that Agents are participants who initiate actions, and the feature of transmission implies that they transfer these actions towards other participants. When these features are attributed to inanimates, this is an atypical combination.

First, the feature of instigation is not very likely to be associated with a specific type of inanimates. As argued in 2.3.2, non-motive inanimates are inert and do not have their own source of energy. This implies that they are in principle not able to initiate actions independently. As a result, they are not readily pictured as the instigator of an event, because this does not match their inherent semantics very well. When speakers still choose to construe them in this role, i.e. when the feature is imposed on them, this is atypical.

Second, it is atypical for the feature of transmission to be attributed to inanimates, both motive and non-motive. When a participant is associated with transmission, it directs an action towards another participant. For inanimates, it is unusual to be involved in an action in this way. When inanimates are construed as instigating an action, this action is typically not transferred towards a Patient. Rather, it does not go towards any specific participant at all. In terms of the analysis in McGregor (1999: 557), actions instigated by inanimates typically "emanate in many directions, rather than exclusively towards a particular target". For instance, when a natural force such as 'wind' is associated with the action of blowing, this is typically random and not exclusively directed towards a specific Patient. This is visualized in figure 5.2.

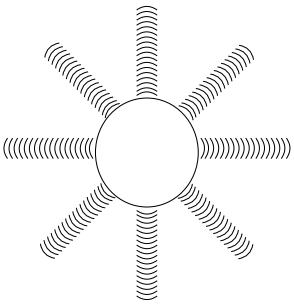

Figure 5.2: Actions instigated by inanimates typically go towards no specific participant (adapted from McGregor 1999: 558)

Consequently, when inanimates are construed as instigators, this is typically in intransitive clauses, where no other participant is involved, and much less typically in transitive clauses, where they affect a Patient. Ideally, this can be checked empirically by looking at frequencies, since more typical situations generally occur more frequently than less typical ones. This requires in-depth corpus studies, however, which fall outside the scope of this dissertation.

To sum up, inanimates do not easily combine with the Agent role because they are not likely to be attributed the feature of transmission. In addition, for non-motive inanimates there is a further reason: they are not likely to be construed as instigators. It is on this basis that I consider it atypical for inanimates to be construed as Agents.

5.1.2.2 Accounting for the different A-related phenomena

In the previous section, I have argued that the inherent identity of inanimates is not readily compatible with Agent semantics. In this section, I explain how this observation can be used in order to account for the different A-related phenomena.

First, the restriction phenomena can occur because it is dispreferred to construe referents in a role in which they do not easily fit. Since inanimates do not match the Agent role semantically, selection in this role is avoided. Furthermore, as the Agent role is closely connected to the A function (see section 2.2), this can result in a phenomenon where inanimates are avoided as A arguments. In the most extreme cases, this

leads to a strong syntactic incompatibility between inanimates and the A function, i.e. the restriction phenomena found in languages like Korean. This is illustrated in example (86) on page 89, and also in the following one.

KOREAN (Yeon 2003: 129)

(88) * *Sikan-i* *na-lul* *ccoch-nun-ta*
time-NOM 1SG-ACC chase-PST-PLN
'Time is chasing me'

In less extreme cases, inanimates are generally avoided in A function, but not completely excluded. This phenomenon was discussed in section 3.2.1, where it was noted that this is not often explicitly attested in reference grammars, but it may be very common. For languages where corpus counts are available, like Swedish (Dahl 2000), it turns out that only a very small fraction of A arguments is inanimate. Unfortunately, this type of corpus counts has not been carried out for the languages in my sample.

Second, the low semantic compatibility between inanimates and the Agent role can not only account for the restriction phenomena, but also for animacy-DAM. In languages with this phenomenon, inanimate A arguments receive case marking that is not used with animate A arguments. This is illustrated in the following examples from Tsakhur.

TSAKHUR (Schulze 1997: 58)

(89) a. *Adam-e:* *jiˁʁˁ* *alebt'ə*
man-ERG.ANIM bridge[III.ABS] III.destroy.PST
'The man destroyed the bridge'

b. *Dama-n* *jiˁʁˁ* *alebt'ə*
river-ERG.INAN bridge[III.ABS] III.destroy.PST
'The river destroyed the bridge'

In languages like Tsakhur, the atypicality of inanimate Agents does not result in a restriction against inanimate As. Instead, they can be construed as A arguments, but using a special case marker in order to draw attention to their atypicality, or, more specifically, the low semantic compatibility between their inherent identity and the Agent role. This implies that the

change in case marking does not occur because of a difference in syntactic function, or a difference in relational semantic features pertaining to Agents. It occurs because the identity of the participant is atypical in this semantic role.

Furthermore, my approach can also account for the four additional observations that were mentioned at the beginning of section 5.1. First, it was noted that some languages make a distinction between animates and inanimates, while others distinguish between animates and motive inanimates on the one hand, and non-motive inanimates on the other hand. In my account, the first type of distinction is expected if we focus on the Agent feature of transmission, which is unlikely to be attributed to all inanimates. Moreover, the second type of distinction is expected if we focus on the feature of instigation, which is unlikely to be attributed to non-motive inanimates. As a result, we can account for the occurrence of either type of distinction if we assume that the features of instigation and transmission are not equally important in every language (i.e. a variable ranking). In certain languages, the feature of transmission is more important, and the A-phenomena are sensitive to animacy. In others, however, the feature of instigation is more important, and the phenomena are sensitive to motivity rather than animacy in general. This is the case in languages such as Hausa, where non-motive inanimates are incompatible with the A function, while motive inanimate A arguments are allowed. This is illustrated in examples (90a) and (90b).

HAUSA (Heide 1989: 60–61)

(90) a. *Iskà taa buudè koofàa*
wind[F] 3SG.F.PRF open door
'The wind opened the door'

b. * *Wukaa taa yankà shaanuu*
knife 3SG.F.PRF kill cow.PL
'The knife killed the cows'

The corresponding DAM phenomenon is one where non-motive inanimate A arguments receive a special case marker that is not used with animate and motive inanimate As. As mentioned in 3.1.2, such a phenomenon is only attested for Kuku Yalanji (Patz 2002). This suggests that languages where the feature of instigation is ranked higher than transmission are

not very common. One should be cautious with such conclusions, however, because the frequency of DAM is very low overall. As a result, the rarity of this particular subtype may be due to chance.

A second observation that can be explained in the account proposed here is the combination of animacy-DAM and focus-DAM in one single system. As argued above, animacy-DAM occurs in order to highlight the atypical identity of inanimate A arguments, which is not readily compatible with the Agent role and the A function. Focus-DAM, on the other hand, where participants take special case marking when they are in argument focus, is governed by a similar principle. As explained in section 3.1.2.2, argument focus can be characterized as 'identificational' (Lambrecht 1994: 222): it draws the attention to the identity of the participant involved in an event, because this is new information that cannot be inferred from what is already known or presupposed. This implies that with both animacy-DAM and focus-DAM, the use of special case marking draws the attention to the identity of the participant in A function. This common basis can explain why animacy-DAM and focus-DAM can be combined in one system (see Verstraete (2010) and McGregor (2010) for a different take on this issue). Of course, both types of DAM also show important differences. With animacy-DAM, the identity of the A argument is important at a semantic level, because there is a mismatch with Agent-related features. With focus-DAM, by contrast, the identity of the A argument is considered in discourse. This explains why both types of DAM are also found independently of each other.

Third, the key role played by the identity of participants also explains why animacy-DAM is not combined with volitionality-DAM. I have argued that inanimate Agents are atypical because of their inherent identity, which is normally not likely to be associated with the Agent role. Involuntary human Agents, by contrast, have also been argued to be atypical (see e.g. Kittilä 2005, Næss 2007), but not on the basis of their inherent identity. As pointed out by Næss (2007), volitionality is a strictly relational property that relates to the way participants are involved in an event, and not to their identity. As a result, involuntary Agents cannot be put on a par with inanimate Agents, because there is nothing in their identity that makes them inherently unlikely to be selected as Agents. This explains why animacy-DAM and volitionality-DAM are not found together. Of course, human Agents may be unlikely to be portrayed as acting involuntarily, as

argued by Kittilä (2005), but this issue is situated at a different level, as illustrated in the following figure.

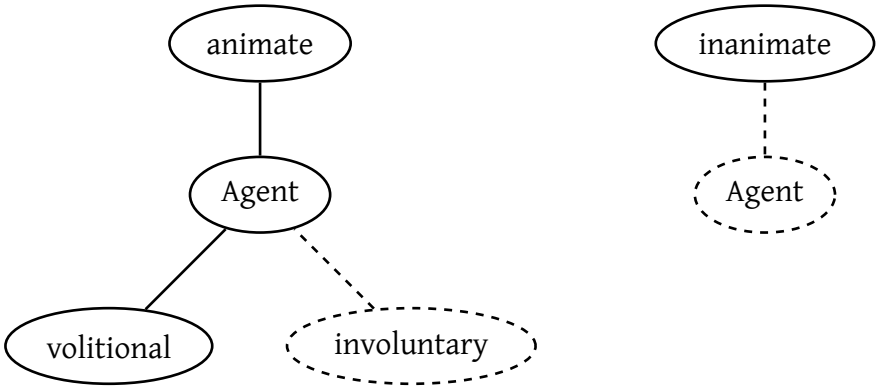

Figure 5.3: Human Agents are unlikely to act involuntarily, inanimates are unlikely to occur as Agents in the first place

Finally, the rarity of animacy-DAM can also be accounted for in this analysis. The low compatibility between inanimates and the Agent role entails that inanimates are not very likely to be construed as A. As a result, the frequency of inanimate A arguments is rather low. This decreases the likelihood that they develop a special case marker not used with all other A arguments, since it is through frequency of use that constructions develop and become productive (see e.g. Bybee & Thompson 2007). In section 6.2, I will suggest another reason that can explain why animacy-DAM is uncommon. I will argue that there is not much semantic variation in the Agent role, and as a result there is not much need to use case in order to distinguish between different degrees of Agenthood within the A function.

To sum up, I have argued that the full range of phenomena under discussion can be explained on the basis of the low semantic compatibility between Agent features and the inherent identity of inanimates. This implies that the A-related phenomena are direct effects of animacy. As I will argue in section 5.2, the same does not hold for most of the verb-related phenomena. Before moving on to the discussion of verb-related phenomena, however, I would like to present two short case studies that provide further support for the analysis presented here.

5.1.2.3 Two case studies: Fongbe and Meithei

In this section, I would like to show that the approach proposed here can be extended and fine-tuned in order to account for language-specific variations on the A-related phenomena discussed so far. This is illustrated with the examples of Fongbe and Meithei.

First, Fongbe (Benin, Niger-Congo) shows that this account can be expanded to take lexical semantics into account. In Fongbe, it is generally only motive inanimates that can be construed as A arguments (Brousseau 1998: 101–114, see section 3.2.2). Thus, the structure in (91a), with a motive A, is perfectly acceptable, while the structure in (91b), with a non-motive A, is not. This is only part of the picture, however, since (91c) is acceptable even though the A argument is a non-motive inanimate.

FONGBE (Brousseau 1998: 104, 106)

(91) a. *Jòhɔ́n xú àvò ɔ́*
wind dry cloth DET
'The wind dried the cloth'

b. ? *Àsíyɔ́ví ɔ́ já àtín*
axe DET cut.in.pieces tree
'The axe cut the tree'

c. *Jìví élɔ́ sén làn*
knife DEM cut meat
'The knife cut the meat'

According to Brousseau (1998: 108–109), (91c) is acceptable because of the semantics of the verb *sén*, 'cut'. This verb is restricted to actions that necessarily come about through the involvement of a cutting tool. As a result, a noun like 'knife' can occur as its A argument. The same does not hold for the verb *já*, 'cut to pieces', however, which explains why (91b) is not acceptable. This can be covered in the approach adopted here when the atypicality of inanimate Agents is not considered in general terms, but in constructions, where the lexical semantics of the verb also plays a role. While inanimate As are atypical in general, a knife is not atypical as the A argument of a verb that is semantically specified for actions involving such a participant. Furthermore, Fongbe shows another phenomenon that is interesting in this context. In clauses where a non-motive A argument

is normally not possible, the construction can still be made acceptable by using the "emphatic" marker *wɛ̀* (Brousseau 1998: 104). This is illustrated in (92a). According to Lefebvre & Brousseau (2002: 134), this marker normally has a contrastive function, as illustrated in (92b), which makes it very similar to a focus marker.

FONGBE (Brousseau 1998: 104, Lefebvre & Brousseau 2002: 134)

(92) a. *Àsíyɔ́ví ɔ́ wɛ̀ já àtín*
axe DET EMPH cut.in.pieces tree
'It is the axe that cut the tree'

b. *Masɛ̀ vì lɛ́ wɛ̀ wá*
Massè child PL EMPH come
'It is the people of Massè who have arrived'

This can be regarded as a further illustration of the parallelism between the marking of focus and the marking of inanimate Agents. The parallelism is motivated because in both cases the central issue is the identity of the participant concerned.

Another case in point here is Meithei (India, Sino-Tibetan), which illustrates another way Agent atypicality and event semantics can interact. Meithei exhibits a type of DAM where atypical Agents receive special marking, but the conditions for atypicality are slightly different from what was described above. Regarding the question of the use or non-use of the ergative marker *-nə*, Chelliah (2009) argues that it occurs particularly with participants "whose involvement in an activity is noteworthy or unexpected" (p. 386).[3] This is illustrated in example (93a). The marker does not occur in "clauses which express characteristic, expected or routine activities", by contrast (see example (93b)), unless the "routine activity is recast as unusual or noteworthy", as in (93c) (p. 387).

MEITHEI (Chelliah 2009: 386–387)

(93) a. *Polis-nə mí ə́-ní hát-pə-ni-ko*
police-ERG man ATTR-two kill-NOM-COP-TAG
'The policemen killed two people, didn't they?'

[3] Chelliah (2009) uses the term 'agentive' instead of ergative, because the case can not only apply to certain A arguments in transitive clauses, but also to agentive S arguments.

b. *Má chan-nə-pə pót cha-li*
3SG play-ADV-NMLZ thing make-PROG
'He is making toys' (Making toys is a characteristic activity for the subject)

c. *Má-nə chan-nə-pə pót cha-li*
3SG-ERG play-ADV-NMLZ thing make-PROG
'He is making toys' (A noteworthy activity for the subject who is not good with his hands)

This implies that, in Meithei, being atypical as an Agent is not just a matter of a mismatch between inherent identity and the Agent role, as is the case with animacy-DAM. Instead, what matters is a mismatch between inherent identity and Agent involvement in certain specific types of events. The use of the ergative case marker is thus connected to the identity of the Agent participant. As in Fongbe, the relevance of the concept of identity can also be inferred from another context in which the marker is used. The suffix *nə* also marks contrastive focus, for A arguments, as in example (94a), but also for S and O arguments, as in (94b). In these examples the marker is glossed as FOC.

MEITHEI (Chelliah 2009: 394)

(94) a. *Nú-pí-nə tilhəw kok-í nú-pá-nə u kok-í*
person-female-FOC onion chop-REAL person-male-FOC wood chop-REAL
'The woman chopped the onion while the man chopped the wood'

b. *ə́y-nə ram-nə koy-kók-lə-e*
1SG-FOC Ram-ERG head-shave-PRF-ASSERT
'It's me (and no one else) that Ram shaved'

Thus, Fongbe and Meithei illustrate how the notion of atypicality can be conceived of in different ways, and how the concept of inherent identity plays a role in the marking of participants. To round off this section, I would like to situate the proposed analysis within the wider literature by pointing out a number of similarities and differences with existing approaches.

First, when I argue that inanimate A arguments are atypical, this partially builds on work by McGregor (2006: 407) and Verstraete (2010: 1647), who noted that it is unexpected for inanimates to be A arguments, and on the markedness approaches, where it is argued that inanimate As are marked. A significant difference in the approach presented here, however, is that I formulate a semantic basis for the atypicality of inanimate As, by looking at how their inherent identity combines with the Agent features. From this perspective, my approach takes both inherent and relational properties into account. Furthermore, my analysis also differs from the markedness approaches in that it is exclusively oriented towards the A function. It focuses on features specific to the Agent role and their compatibility with inanimates, and as a result it does not make any predictions concerning the Patient role or the O function. This is because the encoding of A and O are governed by different principles and should be analyzed independently of each other, as will be argued in more detail in chapter 6.

The analysis proposed here also resembles Næss's (2007) transitivity-based approach, because it draws on semantic features of Agents as well as on a link between the Agent role and the A function. My approach differs from Næss's in the Agent features that are used, as well as in the role that is given to the feature of animacy. First, Næss (2007) mainly focuses on the Agent feature of volitionality in order to explain phenomena connected to inanimate Agents. Instead of volitionality, which as discussed in section 5.1.1 is problematic, I use two other Agent-related features that were discussed in section 2.2, namely instigation and transmission. Second, Næss (2007) focuses on animacy as a feature that has an effect on the relational properties of a participant, i.e. on the way it is involved in an event. In my approach, by contrast, animacy is a feature that influences a participant's compatibility with the Agent role.

5.2 Accounting for the verb-related phenomena

In the previous section, I argued that the A-related phenomena discussed in chapter 3 are directly linked to the feature of animacy. When looking at the verb-related phenomena discussed in chapter 4, it is possible to make

a similar observation for the 'dedicated' phenomena discussed in section 4.3. These phenomena involve a marker whose use is exclusively reserved to contexts of non-volitionality. As a result, it is possible to say that they are directly linked to the feature of volitionality. For the 'anticausative' and the 'completive' phenomena discussed in sections 4.1 and 4.2, by contrast, a different picture emerges. In this section I will argue that these phenomena, which occur with involuntary but also with inanimate Agents, are not directly linked to the features of volitionality and animacy. Instead, I explain them in terms of an intermediary semantic concept. For anticausative constructions, this concept is what I will call 'uncontrolledness' (section 5.2.1). I argue that anticausative markers are typically associated with events over which there is no control. Since actions instigated by involuntary or inanimate Agents can also be perceived as uncontrolled, they are construed with anticausative-marked verbs in some languages. For completive constructions, on the other hand, I argue in section 5.2.2 that the intermediary concept is one of unexpectedness. Completive markers are used with involuntary and inanimate Agents when they are associated with events completed against expectations. While the anticausative and the completive constructions have different motivations, it is still possible to identify a more abstract underlying principle that is shared by both of them. This is discussed in 5.2.3.

5.2.1 Anticausative voice: uncontrolled events

In sections 4.1.1 and 4.1.2 I have shown that anticausative-marked verbs can be used in clauses with involuntary or inanimate Agents. The case frame used in these constructions is most often intransitive, with the Patient encoded as S and the involuntary or inanimate Agent as an adjunct, using an agentive or benefactive–malefactive case marker. In some cases, the case frame is transitive, i.e. the Agent and the Patient are marked as A and O. An example of a construction with an intransitive case frame is found in (95) from Albanian. An example of a similar construction with a transitive case frame is (96) from Cupeño.

Albanian (Kallulli 1999: 270)

(95) *Benit* *i-u* *thye* *dritar-ja*
Ben-dat 3sg-dat-antic-prf break-3sg window-def.nom
'Ben accidentally broke the window'

CUPEÑO (Hill 1969: 350, my glosses)

(96) *Ne$^{?}$en pi-síl^{y}-ne-yaxe*
1SG 3SG.O-pour-1SG.A-ANTIC
'I spilled it accidentally'

In this section, I first discuss existing work on this type of constructions (section 5.2.1.1). Next, I propose an account which is based on the notion of uncontrolled events (section 5.2.1.2). Finally, I discuss the explanatory force of this account in section 5.2.1.3.

5.2.1.1 Existing work

The constructions under discussion here have not received much attention in cross-linguistic studies so far. Kallulli (2006) and Schäfer (2009) provide a formal analysis that is strongly oriented towards European languages (see also Rivero 2003). In the functional-typological literature, Shibatani (2006) has pointed out a couple of constructions similar to the one in (95), in order to support his hypothesis that the difference between volitional and involuntary (in his terminology 'spontaneous') actions is a basic voice distinction. He does not make a connection between anticausative voice and involuntary Agents, however. The most in-depth functional-typological study to date is Kittilä (2005). In this paper, the link between involuntary Agents and the use of constructions such as those in (95) and (96) is explained on the basis of the notion of transitivity.[4] He argues that volitionality is a parameter contributing to high transitivity, so that clauses with an involuntary Agent are reduced in semantic transitivity. As a result, these clauses are cross-linguistically expected to show reduced formal transitivity as well. This is why they can have a detransitivized verb instead of a regular transitive one. This approach is visualized in figure 5.4. A similar view is also found in work by Næss (2007: 85, 93–96) and Malchukov (2006).

[4] Inanimate Agents are not taken into account.

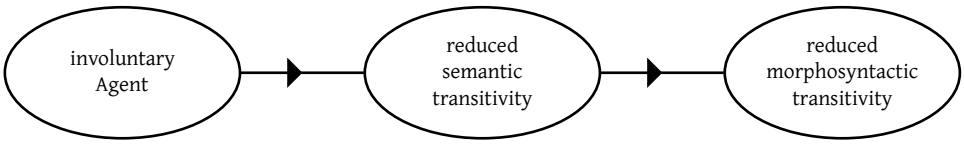

Figure 5.4: Transitivity-based accounts (Kittilä 2005, Næss 2007, Malchukov 2006)

This approach has two drawbacks. First, it is not clear why involuntary Agents can trigger the use of anticausative markers in particular, and not just any type of detransitivizer. It could be expected that markers which are exclusively associated with antipassivization, for instance, can also be used in similar constructions with an involuntary or inanimate Agent, but this is not the case. Second, transitivity-based approaches cannot account for the full range of data presented in section 4.1. As argued in 4.1.3, some constructions with involuntary Agents can use a verbal marker that is used with spontaneous events, even though it is not associated with valency reduction. This is the case, for instance, in St'át'imcets (Davis et al. 2009), as illustrated in examples (97a) and (97b).

ST'ÁT'IMCETS (Davis et al. 2009: 212–213)

(97) a. *Ka-lhót-a aylh i=s7áy'tsqw=a nilh*
SPONT-get.squished-SPONT then PL.DET=raspberry=EXIS FOC
ka-téqw=s-a
SPONT-dent=3POSS-SPONT
ti=n-tsq-ús-tn=a
DET=LOC-put.down-face-thing=EXIS
'The raspberries got squished and the pot got dented'

b. *Ka-gwél-s=kan-a ta=n-gúy'tten=a*
SPONT-burn-CAUS=1SG.NOM-SPONT DET=1SG.POSS-bed=EXIS
'I accidentally set my bed on fire'

In cases like these, there is no evidence for reduced formal transitivity, and as a result Kittilä's (2005) approach does not apply here. Another problematic case is found in Dhimal and in Shipibo-Konibo (see section 4.1.1), where clauses with an involuntary Agent have a verb that is suffixed

with both the anticausative and the causative marker, as in example (98) from Dhimal.

DHIMAL (King 2007: 200)

(98) *Wa kaŋ-ko khur phinu-ta ceʔ-nha-pa-hi*
1SG 1SG.OBL-GEN hand door-LOC clasp-ANTIC-CAUS-PST
'He accidently caught my hand in the door'

The causative is a transitivity increasing device, so it cancels out the detransitivizing effect of the anticausative. If the anticausative marker is used because of this detransitivizing effect, then why is the causative marker used as well?

5.2.1.2 Uncontrolled events

In order to solve these problems, I propose a different approach to the phenomena under discussion. In what follows, I argue that clauses with involuntary or inanimate Agents can have anticausative markers, not because these markers have a detransitivizing effect, but because they are associated with what I will call 'uncontrolled events' (see Klaiman (1991), McGregor (1999), Verstraete (2007) and Davis et al. (2009) for a similar use of this term).

Consider the following examples, which illustrate the type of event that is typically associated with clauses that have only one participant and an anticausative-marked verb. In what follows I will refer to such events as 'anticausative events'.

CUPEÑO (Hill 1969: 349, my glosses)

(99) a. *Kevá'melem cípil-pe-yaxe*
pot break-3SG.S-ANTIC
'The pot shattered'

SINHALA (Beavers & Zubair forthcoming)

b. *Nimal mæruna*
Nimal kill.ANTIC.PST
'Nimal died'

ALBANIAN (Kallulli 1999: 275)

c. *Der-a* *po* *hap-et*
door-DEF.NOM PROG open-ANTIC.3SG
'The door is opening'

I regard the events illustrated in these examples as 'uncontrolled' because of two features. The first one relates to the development of the event. The action portrayed by the verb develops in an uncontrolled way, because there is no participant who can influence every single phase of the process. Nobody has any direct impact on the event, or, put differently, the unfolding of the event is not directly controlled by anyone. In (99a), for instance, there is nobody who controls the way the pot shattered. The second feature relates to the outcome of the event. The outcome of anticausative events cannot be attributed to a specific participant. What happens to the Patient is nobody's fault or merit. There is no liability: it just happens, and there is nobody who can be held responsible. In example (99a), for example, the shattering of the pot cannot directly be blamed on anyone.

I would like to argue that clauses representing events instigated by an involuntary Agent (involuntary Agent events, see Kittilä (2005)) can have an anticausative-marked verb because they can also be perceived as uncontrolled. Involuntary Agent events have, or can be perceived to have, both features of uncontrolled events. First, involuntary Agents do not have any influence on the way the event develops. They exercise no control over it, in that they cannot choose to carry out the action slowly instead of quickly, for instance, or partially instead of completely. Second, involuntary Agents cannot be held responsible for the outcome of the event. What happens to the Patient was planned nor intended, and as a result they are not fully liable or accountable for it. In terms of Goldman (1993: 39), the outcome of actions instigated by involuntary Agents cannot straightforwardly be "evaluated as right or wrong, praiseworthy or blameworthy". This corresponds to what is known in philosophy as a lack of moral responsibility (see e.g. Eshleman 2009).

A similar analysis can be proposed for inanimate Agent events. These can also be perceived as uncontrolled for the same reasons. First, inanimate Agents are incapable of influencing the way an event develops. They are not aware of their actions, and they cannot change them by adjusting

their behavior. Second, inanimate Agents cannot be held responsible for the outcome of an event. They inherently lack all intention, to the effect that they cannot be held accountable for their actions. Just like with involuntary Agents, the outcome of actions instigated by inanimate Agents is not a matter of fault or merit. This explains why not only clauses with involuntary Agents, but also those with inanimate Agents can have anticausative-marked verbs.

The basic idea behind the approach outlined here is visualized in figure 5.5.

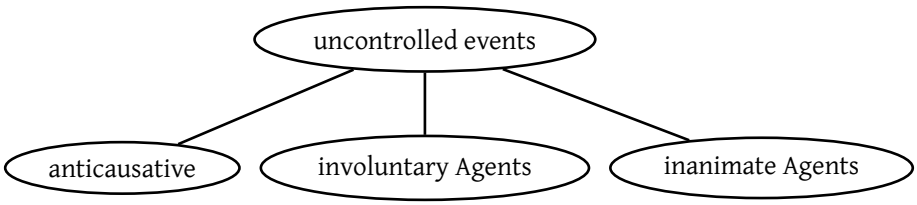

Figure 5.5: The link between anticausative voice and involuntary and inanimate Agents is the concept of 'uncontrolled events' (see Verstraete (2007) for a similar figure)

The link between anticausative voice and involuntary and inanimate Agents is the concept of 'uncontrolled events'. Anticausative events are characterized as uncontrolled. Since involuntary Agent events and inanimate Agent events can also be perceived as uncontrolled, they can be associated with constructions with an anticausative-marked verb.

5.2.1.3 Explanatory force

The explanatory force of this account is not just limited to accounting for the link between anticausatives and involuntary and inanimate Agents. In this section I argue that the notion of uncontrolledness can also account for variation in the use of the anticausative constructions, as well as variation in their form.

Variations in use An approach based on the semantic notion of uncontrolled events can explain the variation in the use of anticausative con-

structions. First, as shown in section 4.1.2, such constructions are more often used with involuntary Agents than with inanimate Agents. This is the case because inanimate Agents are associated with uncontrolled events by default, whereas this is not the case for human Agents (see Kittilä 2005 for a similar argument). When an inanimate entity is involved in an event as Agent, the event is necessarily uncontrolled. Inanimates are inherently incapable of influencing the actual development of an event, and they are never truly responsible for its outcome in the same way as a human being can be. With human Agents, by contrast, their inherent semantics is in principle compatible with both controlled and uncontrolled events.[5] As a result, the "uncontrolledness" of events instigated by involuntary Agents is more likely to be overtly signaled in the construction, since it cannot be deduced from the identity of the Agent. This reasoning thus builds on the difference in the inherent identity of involuntary and inanimate Agents, in a similar way as in section 5.1.

There are two additional observations that can be explained using the concept of uncontrolled events. The first relates to their use with involuntary Agents, whereas the second relates to their use in another type of context. First, the anticausative construction is in some languages only optional with involuntary Agents. The presence of such an Agent does not necessarily lead to the use of an anticausative-marked verb; one can also use a construction with a regular transitive verb. This is the case in Yidiny, for instance. Dixon (1977: 288–289) notes that involuntary Agents trigger the use of an anticausative-marked verb only in cases where attention is drawn "to the accidental nature of some event when this does have significance in the context of discourse". Similarly, Beavers & Zubair (2010) note that the corresponding Sinhala construction is not obligatorily used when the Agent acts involuntarily. This observation is compatible with the approach proposed in this section: since anticausative-marked verbs are used to represent involuntary Agent events as uncontrolled, it is not surprising that some languages only do this when the uncontrolledness is emphasized.[6]

The second observation relates to the broader use of the anticausative

[5] In fact, since humans are normally capable of controlled action, events are likely to be interpreted as such unless this is explicitly denied (see Van Valin & Wilkins 1996).

[6] It should be noted that, for the large majority of the languages under discussion, it is not clear whether the construction discussed here is obligatory with involuntary Agents.

constructions. In some languages, they are not only used with involuntary and inanimate Agents, but also in 'manage-to' contexts, where an Agent only completes an action after much effort (see section 4.2). This is the case, for instance, in Kiowa (United States, Kiowa-Tanoan, Watkins 1984: 142–143, 149–150). As illustrated in (100a), the suffix *-gyá* is an anticausative marker (here realized as *-kyá*). When this suffix is used in a two-participant construction, the clause can have an involuntary Agent reading, as in (100b), but also a manage-to reading, as in (100c). Note that the participant interpreted as the Agent is realized in the dative case.[7]

KIOWA (Watkins 1984: 142–145, 150)

(100) a. *Sát-kyá*
shatter-ANTIC.PRF
'shatter (intr.), get shattered' *anticausative*

b. *K'ɔ̀áttɔ̀ ɔ́-ót-kyá*
dish 3SG.DAT.3SG.O-drop-ANTIC.PRF
'He dropped the dish (accidentally)' *involuntary*

c. *Há:ɔ̀y ɛ́:-tɛ́:-gyáy*
much.later 1SG.DAT.3SG.O-grab-ANTIC.PRF
'[I was denied a husband, but] much later I finally managed to grab one' *manage-to*

A similar phenomenon is found in Agul (Caucasus, Nakh-Daghestanian, Ganenkov et al. 2008) and in German (Germany, Indo-European, Schäfer 2008: 107–108). This link between anticausatives, involuntary Agents and manage-to can be explained with the notion of uncontrolled events. As argued above, anticausative-marked verbs can be used in clauses with involuntary and inanimate Agents because of their uncontrolled semantics. From this perspective, it is not surprising that they can, in some cases, also be used in manage-to contexts, since these are somewhat similar to uncontrolled events. In contexts of uncontrolledness, there is no control over the development of the event, and nobody is responsible for its

[7] Watkins (1984: 112) labels this case as 'patientive'. Since it is associated with Beneficiaries, Possessors and Experiencers, but not with Patients, I use the term 'dative' instead. Note also that the original glosses for these examples include INV, for 'inverse number'. Since this number marks singular nouns here, I re-glossed it as singular in order to avoid confusion with inverse voice marking.

outcome. Manage-to events are similar because the Agent is struggling to complete the action portrayed by the verb. As a result, they are not fully in control over the event's development. This explains why manage-to events can in some cases be construed as uncontrolled, and thus associated with the same construction as involuntary and inanimate Agents. This is not systematically the case, however, since the similarity between manage-to events and uncontrolled events is only partial. In manage-to events the Agent intentionally tries to achieve something, and as a result they are responsible for the event's outcome. This is a crucial difference from uncontrolled events, whose outcome is nobody's responsibility. The partial similarity between manage-to events and uncontrolled events is visualized in figure 5.6.

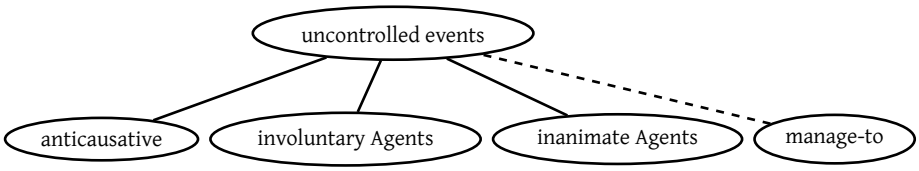

Figure 5.6: Manage-to events are partially similar to uncontrolled events

Formal variation Apart from explaining variation in the use of the anticausative constructions, an approach based on uncontrolledness can also account for the variation relating to their form. As argued in 4.1, the constructions discussed here can have either an intransitive or a transitive case frame. The first option, illustrated in (101), is cross-linguistically more common than the second one, which is illustrated in (102).

POLISH (Rivero & Sheppard 2003: 151)

(101) *Jankowi złamały się okulary*
John.DAT break.PRF.PTCP.F.PL ANTIC glasses.F.PL
'John accidentally broke his/somebody else's glasses'

YIDINY (Dixon 1977: 289, my glosses)

(102) *Gidi ŋayu gilbi-:ɖi-ɲu*
gidi.torch[ABS] 1SG.NOM throw-ANTIC-PST
'I threw the Gidi torch away accidentally'

This type of variation between an intransitive and a transitive case frame is expected in the approach advocated here.

First, I analyze the use of the intransitive case frame as an epiphenomenon that is not a direct result of the nature of involuntary or inanimate Agent events. Instead, it is a direct result of the nature of anticausative-marked verbs. Such verbs are reduced in valency, and hence closely linked to morphosyntactic intransitivity. When they are used to stress the uncontrolledness of an involuntary or inanimate Agent event, this association with morphosyntactic intransitivity still holds. The anticausative-marked verb can only take one argument, which is associated with the Patient role, and as a result the involuntary or inanimate Agent cannot be realized as A. Put differently, anticausative-marked verbs are used because of their uncontrolled semantics, and the association with morphosyntactic intransitivity is incidentally carried over as well. There is a direct link between uncontrolled events and involuntary/inanimate Agents, but only an indirect one between intransitivity and involuntary/inanimate Agents. This is visualized in figure 5.7.

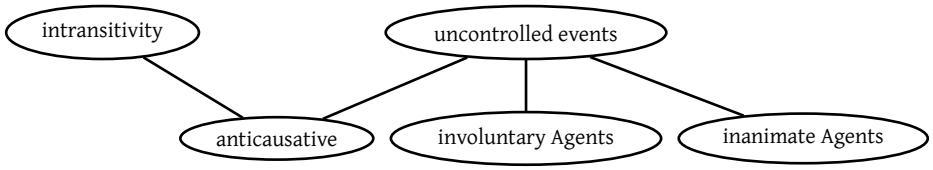

Figure 5.7: The link between involuntary or inanimate Agents and morphosyntactic intransitivity is only indirect

In this approach, then, the use of the dative for the involuntary Agent in (101) is a consequence of the use of an anticausative-marked verb, and not an independent phenomenon. This is in contrast with Kittilä's (2005) approach, where the use of case marking and verbal marking are analyzed as separate phenomena in their own right. I do not adopt this analysis because involuntary Agents never take special case marking unless the verb is anticausative-marked or intransitive (see section 3.1.3 where I argue that volitionality-DAM is not attested).[8] This shows that these two

[8]There are, however, a couple of languages where dedicated verbal markers entail the use of a special case marker for the involuntary Agent. This will be discussed later on

elements are connected.

Second, the combination of an anticausative-marked verb with a transitive case frame is also expected. In my approach, the constructions under discussion use anticausative markers because of their uncontrolled semantics and not because of their intransitivity. Moreover, one can assume that the construction most typical for clauses with both an Agent and a Patient participant is one with A and O arguments. As a result, the anticausative markers can, in some cases, lose their association with morphosyntactic intransitivity in these specific constructions. This allows the Agent to be construed as A and the Patient to be construed as O, which results in the use of a transitive case frame, as in example (102). This happens in only a small number of cases, however, since there is an extra step involved: the anticausative marker has to lose its connection with intransitivity. This issue is taken up again in section 5.2.3 in this chapter, where I discuss an additional reason for the lower frequency of the transitive case frame in constructions with involuntary and inanimate Agents. I argue that there is a tendency to make the Patient participant more prominent syntactically than the Agent participant in such constructions. This tendency favors the intransitive case frame, where the Patient is the single argument, over the transitive case frame, where the Patient and the Agent are both full arguments.

To sum up, then, markers of uncontrolled events are often, but not necessarily associated with intransitivity. This can not only be seen in the anticausative constructions themselves, but also in a number of related constructions. First, constructions with a lexically intransitive verb are another example where uncontrolled semantics are combined with intransitivity. As argued in 4.1.3, some languages exhibit constructions that show an underived intransitive verb instead of a derived, anticausative-marked verb. This is illustrated in example (103) from Agul.

AGUL (Ganenkov et al. 2008: 178)

(103) *Gada.ji-fas kitab gulu-ne*
boy-ADEL book[ABS] get.lost-PST
'The boy lost the book'

in this chapter (section 5.2.3).

Verbs used in such constructions typically denote events where a semantic Patient is affected by an action that does not involve an Agent participant. This implies that these verbs can be seen as semantically parallel to anticausative-marked verbs, and linked to uncontrolled semantics. It also explains why they can be used in clauses with involuntary or inanimate Agents.

Second, languages like St'át'imcets further support my claim that uncontrolled markers are not necessarily intransitive. In these languages, constructions with involuntary or inanimate Agents have a marker that is associated with uncontrolled semantics, but not with detransitivization (see examples (97a) and (97b)). This is expected in my approach: intransitivity is not the crucial element in this context, so uncontrolled semantics can be present when it is completely absent.

Another example that underscores the irrelevance of intransitivity comes from Dhimal and Shipibo-Konibo. As argued in section 4.1.3, these languages combine the anticausative marker with the causative marker in order to express events with an involuntary Agent (see example (98) cited above). From the perspective of this approach, the anticausative marker is expected because of its association with uncontrolled events. The presence of the causative marker, on the other hand, can also be accounted for. In both languages, the causative is used to add an Agent participant to the semantic structure of intransitive verbs. This allows events to be construed as externally instigated, but not necessarily in a forceful way (King 2007: 197–200, Valenzuela 2003: 611–621). It is therefore not surprising that this marker can be combined with anticausative-marked verbs in order to construe an action as both uncontrolled and instigated by an external Agent, which results in a reading of non-volitionality. The fact that the causative marker is a valency increaser becomes irrelevant under this analysis.

In this section, I have argued that the link between anticausative markers and involuntary and inanimate Agents is not found in the concept of transitivity, but in the concept of uncontrolled events. This implies that the anticausative constructions are not directly linked to the semantics of involuntary and inanimate Agents. In the next section I argue that a similar observation can be made for the completive constructions. They are only indirectly connected to the semantics of involuntary and inanimate

Agents, through the concept of unexpectedness.

5.2.2 Completive aspect: unexpectedness

In section 4.2 I showed that, in some languages, markers of completive aspect can be used in clauses with involuntary Agents, and in some cases also in clauses with inanimate Agents. Example (104) from Mandarin illustrates this phenomenon.

MANDARIN (Teng 1975: 56)

(104) *Ta ti-dao xiao meimei*
3SG kick-COMPL little sister
'He accidentally kicked the little sister'

I also argued that completive markers used in constructions such as these are always associated with other types of meanings as well. They can be used to express surprise, for instance, or the idea that an action was only completed after a lot of effort (manage-to semantics). In the range of uses, there is always one recurring element: they indicate that the action portrayed by the verb was completed successfully.

This association between completive aspect and involuntary and inanimate Agents has not been noted in the typological literature so far. Furthermore, it cannot be accounted for using existing approaches to the encoding of involuntary and inanimate Agents. As mentioned in the previous sections, Kittilä (2005), Næss (2007) and Malchukov (2006) argue that clauses with involuntary and inanimate Agents show reduced semantic transitivity. Consequently, they are likely to show reduced morphosyntactic transitivity as well. This does not apply to constructions with completive markers like (104), however. The involuntary or inanimate Agent and the Patient are realized as A and O, the verb is transitive and the completive marker is not a detransitivizer. There is no sign of reduced morphosyntactic transitivity at all. In fact, the presence of the completive marker could, if anything, be considered a sign of high rather than low transitivity. This marker is associated with telicity, which correlates with high transitivity according to Hopper & Thompson's (1980) parameters (see table 2.1 on page 8). Since transitivity-based approaches cannot account for the phenomenon under discussion, I propose an analysis that

approaches the phenomenon from a different perspective. I argue that the link between completive aspect and involuntary and inanimate Agents is the notion of unexpectedness.

This notion of unexpectedness is similar to what has been discussed under the label 'mirativity' in the typological literature (see e.g. DeLancey 1997). I define unexpectedness in terms of predictability. An event, or the outcome of an event, is unexpected when it is presented as unpredictable, i.e. when there is a discrepancy between what happened and what would normally be expected to happen. An important difference with mirativity is that unexpectedness does not refer to information that is new for the speaker. There are several elements indicating that unexpectedness plays a role in the phenomena discussed here.

A first indication is the fact that this notion encompasses the different uses of the completives discussed in 4.2. As mentioned above, completives used in clauses with involuntary and inanimate Agents are always associated with other semantic domains as well, such as 'manage-to' and surprise. What connects these different types of meanings is the notion of unexpectedness. I will argue that, in each case, the use of the completive marker signals not just event completion, but also that this completion was somehow unexpected. A similar argument has also been proposed in language-specific work on this phenomenon, see e.g. Ghomeshi (1991) on Bengali, Yoshida (1993) on Japanese and especially Jacobs's (2011) work on Squamesh.

First, there is a link between manage-to and unexpectedness. When an event is associated with manage-to semantics, the completion of this event could only be achieved through a lot of effort (see e.g. example (105) from Mandarin). There were difficulties that had to be overcome, and the action was only completed (or could normally only be completed) after a number of failed attempts. The action is thus presented as an action that is normally expected to fail. This means that its succesful completion is unexpected because it could not be straightforwardly predicted.

MANDARIN (Teng 1975: 134)

(105) *Ta zu-dao fangzi le*
3SG rent-COMPL house ASP
'He managed to rent a house'

Second, surprise is also related to unexpectedness. When a speaker expresses their surprise, they indicate that an event is not in accordance with their expectation pattern. This is the case, for instance, in example (74b) from Bengali, repeated below as (106). As mentioned in 4.2, the speaker in this example expresses their surprise because the action denoted by the verb was completed earlier than expected.

BENGALI (Ghomeshi 1991: 365)

(106) *Ami ek gʰonṭar pitore bʰat ranna.kore fele čʰi-l-am*
1SG one hour within rice cook.PTCP COMPL be-PST-1SG
'I had already finished cooking rice in one hour'

Third, events instigated by involuntary Agents are also connected to unexpectedness. When an event is not consciously instigated, as in example (104), the completion of this event is unanticipated. The outcome of the event could not be predicted, as it was unplanned and not in line with the Agent's intentions. As a result, it can be perceived as an event whose completion is unexpected (for a similar observation see Jacobs (2011)). It should also be noted that a connection between unexpectedness and involuntary Agents has also been suggested in the literature on mirativity (DeLancey 1997, Dickinson 2000).

Fourth, a similar point can be made concerning events instigated by inanimate Agents (see e.g. example (73b)). The outcome of these events can also not be foreseen or anticipated, because actions by inanimates cannot be predicted (see also Verstraete 2007, 2011). As a result, the completion of these actions can be perceived as unexpected. The difference with events instigated by involuntary Agents, however, is that here the outcome of the action cannot be contrasted with the Agent's intentions, as inanimates do not have any intentions.

So far, I have argued that the different uses of the completives discussed in 4.2 all relate to unexpectedness. While this explains why these different uses are related to each other, it does not explain how completive markers are linked to unexpectedness. I argue that such a link, which has already been suggested by Bybee et al. (1994: 57), is not surprising from a functional perspective because overtly marking completion is most likely to occur in contexts of unexpectedness.

As mentioned in 4.2, the completive markers discussed here are not obligatorily used in cases where an action is completed: they merely profile completion. When they are omitted, the action denoted by the verb can still be interpreted as completed, unless the opposite is signaled explicitly. As a result, the actual use of the completive can come to differ depending on expectedness or predictability. In standard contexts, where there is nothing extraordinary or unexpected about the completion of the event, the marker is not very likely to occur. This is because it is not strictly necessary: the idea of event completion can also be successfully conveyed without it. This can be regarded as a consequence of Zipf's (1949) economy principle (see also Haspelmath 2008). In contexts of unexpectedness, by contrast, event completion is not predictable. In such situations, overt profiling of completion is less dispensable because it is presented as a deviation, and not as something self-evident that straightforwardly follows from what is already known. As a result, the completive marker can develop an association with unexpectedness.

The analysis proposed in this section is visualized in figure 5.8. Completive markers are used preferably in contexts of unexpectedness. As a result, they can be associated with a number of semantic domains that are linked to unexpectedness, such as manage-to, surprise and involuntary and inanimate Agents.

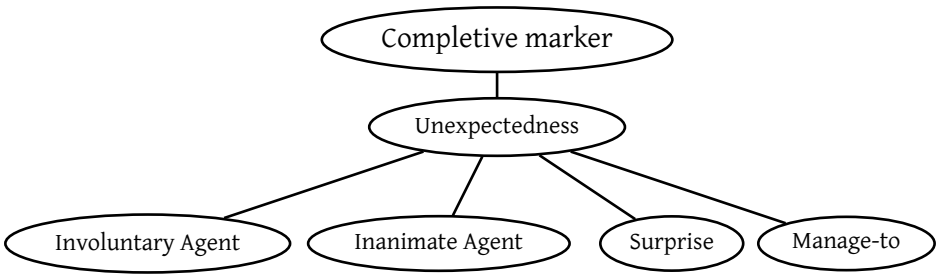

Figure 5.8: Completives and unexpectedness

It should be noted that, in some languages, completive markers can also be associated with use contexts that are not directly linked to unexpectedness. In Japanese, for instance, the marker also occurs in contexts where the completion of the event is considered undesirable (see e.g. Strauss 2003). I do not discuss such other uses in this dissertation because

they are not immediately relevant to constructions with involuntary and inanimate Agents. Furthermore, they do not challenge my analysis in any way, because functions related to unexpectedness can perfectly coexist with functions related to undesirability.

To sum up, I have argued that completive markers are not directly connected to the semantics of events instigated by involuntary or inanimate Agents. Rather, such markers are used with these types of events because of their association with unexpectedness.

5.2.3 Voice and aspect: a shared underlying principle

In the previous sections I presented an analysis that accounts for the use of anticausative and completive markers in clauses with involuntary and inanimate Agents. In this section, I identify a more abstract underlying principle that is shared by both the anticausative and the completive strategies. First, I argue that both strategies are characterized by an emphasis on the endpoint of the action. Second, I explain how this insight can clarify certain phenomena associated with the anticausative and completive strategies. Third, I argue that this insight can also account for a number of other phenomena, notably those discussed in 3.3 and 4.3. Finally, I propose a functional explanation for this principle.

5.2.3.1 Endpoint emphasis

While anticausative and completive markers have a different syntactic function, they share an important characteristic at a more abstract level. Both anticausative and completive markers emphasize the endpoint of an action, albeit at different levels. Anticausative markers emphasize the endpoint of the causal chain, i.e. at the level of the participants involved in an action. Completives, by contrast, emphasize the temporal endpoint, i.e. at the level of the development of an action over time. There are several elements that support such an analysis.

First, anticausative markers are associated with an emphasis on the endpoint of an action if we look at the causal chain. As mentioned in 2.2, prototypical transitive verbs are associated with two-participant events where one participant acts on the other. This can be visualized in a figure like 5.9 (repeated from 2.3).

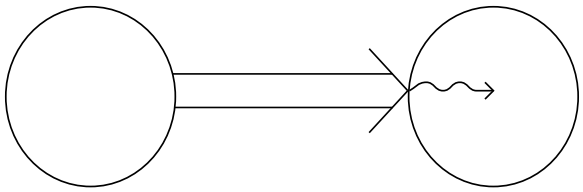

Figure 5.9: Prototypical transitive events as visualized by Langacker (1990: 211)

In this figure, the action starts with the leftmost participant, the Agent, and ends with the rightmost participant, the Patient. For instance, if we consider the transitive clause in (107), the Agent participant 'he' is the starting point of the act of breaking, and the Patient is the endpoint of this action.

SINHALA (Chandralal 2010: 153)

(107) *Miniha pingaanə binda*
3SG.NOM plate break.PST
'He broke the plate'

When a transitive verb is anticausative-marked, the structure visualized in 5.9 is altered. As mentioned in 4.1, anticausative markers delete the Agent participant from the semantic structure of the verb. This implies that the action is fully centered on the endpoint of the causal chain, i.e. the Patient, while the starting point, the Agent, is eliminated. One can see this by comparing (107) with (108), where the verb is anticausative-marked. In the latter example, only the Patient, the endpoint of the action of breaking, is referred to, while the Agent, i.e. the starting point, is not even implied.

SINHALA (Chandralal 2010: 154)

(108) *Pingaanə binduna*
plate break.ANTIC.PST
'The plate broke' *anticausative*

As a result, anticausatives can be analyzed as markers that fully focus on the endpoint of the causal chain. This is visualized in figure 5.10.

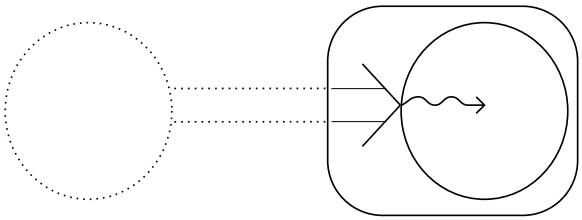

Figure 5.10: Anticausative markers emphasize the endpoint of the causal chain

Second, completive markers also emphasize the endpoint of an action, but at a different level. This is not related to the interaction between participants, but to the development of an action over time. I will refer to this level as the temporal level. Following Sasse (1991), Breu (1994) and Johanson (2000), the development of an action can be divided into three phases: begin, course and end. This is visualized in figure 5.11.

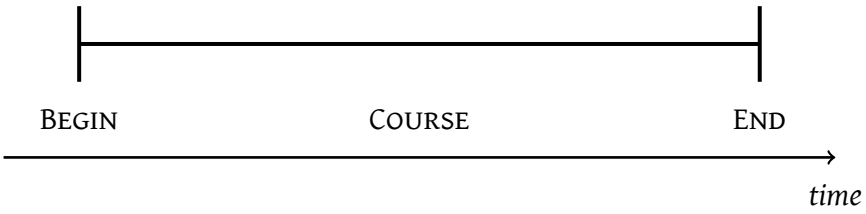

Figure 5.11: Development of an action over time: different phases (Sasse 1991, Breu 1994, Johanson 2000)

This can be illustrated using the transitive clause represented in example (109), which depicts an action of washing. Such an action is temporally divided in three phases. First, there is a 'begin' phase, where the Agent participant starts to wash the floor. Next, there is a 'course' phase, where the floor is being washed. Finally, there is an 'end' phase, where the floor is entirely washed and the event is completed.

SQUAMESH (Jacobs 2011: 267)

(109) *Na míkw'-in-t-ø-as ta lhx̱énpten*
REAL clean-TR-TR-3O-3A DET floor
'He washed the floor'

According to Sasse (1991), Breu (1994) and Johanson (2000) (see also Bickel 1997), markers of grammatical aspect are used to highlight different phases of an action. I argue that completive markers strongly emphasize the end phase of the development of the action, namely the point where the action is fully completed. This can be illustrated using example (110), repeated from (75a). This example is similar to (109), but here the verb is marked using the completive. As a result, full attention goes to the end phase of the event, namely the point where the canoe is completely washed (Jacobs 2011).

SQUAMESH (Jacobs 2011: 224)

(110) *Na míkw'-nexw-ø-as ta snexwílh*
REAL clean-COMPL-3O-3A DET canoe
'He finished washing his canoe'

This implies that completives can be considered as markers that emphasize the endpoint of the action at a temporal level. This is visualized in figure 5.12.

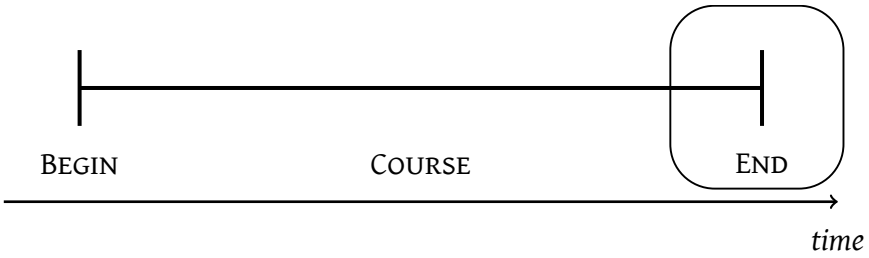

Figure 5.12: Completive markers emphasize the endpoint of the action at a temporal level

So far, I have argued that two types of marking used in clauses with involuntary and inanimate Agents share a common underlying principle. Both anticausative and completive markers emphasize the endpoint of an action, but at a different level. In what follows, I will argue that this insight clarifies a number of characteristics of the phenomena discussed in 4.1 and 4.2. Next, I will argue that a similar principle of endpoint emphasis is also at work in other phenomena that have not been explained so far. This

includes some of the phenomena discussed in sections 3.3 (the 'other' A-related phenomena) and 4.3 (the 'dedicated' verbal markers of involuntary Agents). Finally, I argue that this principle is motivated on functional grounds.

5.2.3.2 Further insight in the phenomena

The observation concerning endpoint emphasis can further clarify certain aspects of the constructions discussed in 4.1 and 4.2. First, it can help to understand why, in some languages, one single marker can be associated with both anticausative and completive functions. This was argued in 4.2 for Indonesian and Tagalog. Since both anticausative voice and completive aspect are related to endpoint emphasis, this is not unexpected. As argued by DeLancey (1982), the level of temporal development and the level of the causal chain are related to each other: they are different dimensions of the same event. Moreover, these levels are normally aligned, to the effect that the Agent coincides with the temporal starting point of the event, and the Patient with its temporal endpoint. As a result, it is not surprising that, in some languages, a marker that emphasizes the endpoint at one of the levels may also do so at the other. This is visualized in figure 5.13.

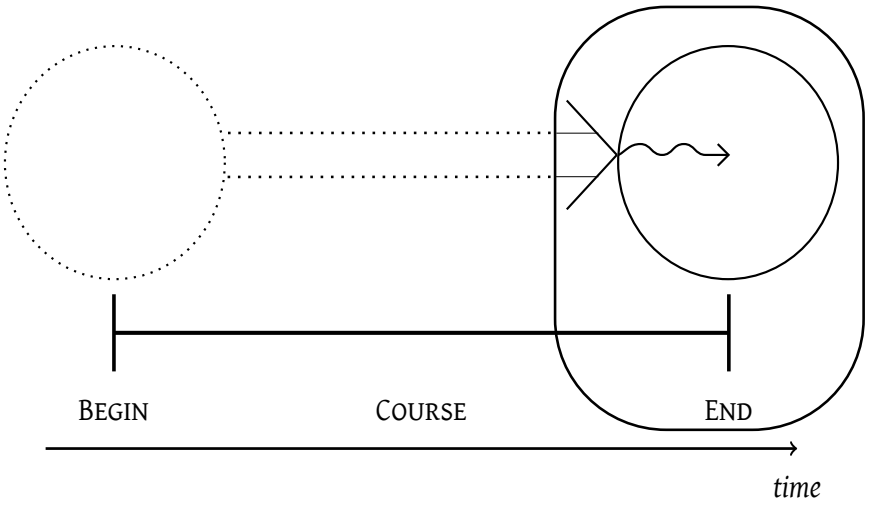

Figure 5.13: Some markers can emphasize both the endpoint of the causal chain and the temporal endpoint of an event

A second observation that can be better understood now is the fact that constructions with an anticausative-marked verb can show either an intransitive case frame, or a transitive one. This difference is illustrated in examples (111a) and (111b) from Indonesian and Yidiny. Both constructions have an involuntary Agent and an anticausative-marked verb. In (111a), the case frame is intransitive: the Patient is realized as S while the involuntary Agent is an oblique adjunct. In (111b), by contrast, the case frame is transitive: the involuntary Agent and the Patient are realized as the A and O arguments of a transitive clause. Cross-linguistically, the second option is less frequent.

INDONESIAN (de Vries 1983: 167)

(111) a. *Buku itu ter-bawa oleh orang itu*
book DEM ANTIC-bring AGT person DEM
'That person brought that book (accidentally)'

YIDINY (Dixon 1977: 289)

b. *Yiŋu yiɲɖu:ŋ baɖaɽ-:ɖi-ɲu*
this[ABS] this.ERG leave-ANTIC-PST
'This [woman] has left this [yamstick] by mistake'

In section 5.2.1, I argued that the transitive case frame can occur in these constructions because the anticausative marker is used for its association with uncontrolled events, and not because of its association with morphosyntactic intransitivity. As a result, there can be a tendency to treat the involuntary Agent and the Patient in exactly the same way as the Agent and the Patient of a regular transitive clause. I also argued that this tendency does not surface very often, because it implies that the anticausative marker has to lose its detransitivizing function.

In the context of this section, it is possible to identify a further reason why constructions such as (111b) are cross-linguistically less common than constructions such as (111a). When looking at (111a), with an intransitive case frame, one can see that the principle of endpoint emphasis also applies here. The Patient, i.e. the endpoint of the causal chain, is construed as S. This implies that it is the only morphosyntactic argument of the clause. The involuntary Agent, by contrast, is realized as an oblique adjunct. This means that, in comparison with the Patient, the Agent is

construed in a syntactically less prominent position: it is not a privileged core argument. In constructions with a transitive case frame, like (111b), by contrast, both the involuntary Agent and the Patient are syntactic arguments, so they are both in a syntactically prominent position. As a result, constructions with an intransitive case frame are more in line with the principle of endpoint emphasis. The Patient, i.e. the endpoint of the causal chain, is promoted to S, the sole argument of the verb, while the Agent is demoted to an adjunct. The Patient thus has greater syntactic prominence. In constructions with a transitive case frame, by contrast, the Agent and the Patient are realized as A and O, and they are both privileged syntactic arguments. This implies that the principle of endpoint emphasis does not hold as clearly here.

I argue that the principles described here and in 5.2.1 can be analyzed as competing motivations for the choice of case frame in anticausative constructions with an involuntary or inanimate Agent. On the one hand, there is pressure to follow the principle of endpoint emphasis that was explained above, by construing the Patient in a more prominent syntactic position while demoting the Agent. On the other hand, one can assume that there is a tendency to treat constructions with an Agent and a Patient as transitive, with two core arguments that are marked as A and O. In most cases, the former principle seems to have priority, and an anticausative-marked verb is combined with an intransitive case frame. In some cases, however, the second principle takes over, and the anticausative-marked verb is combined with a transitive case frame, i.e. the Agent and the Patient are marked as A and O. In yet other cases, the construction is hybrid in that it reflects both principles. The Agent is not marked as A, and the Patient is case-marked as the sole argument of an intransitive verb. At the same time, however, both the Agent and the Patient are treated as syntactic arguments. In section 4.1.1 I argued that this is the case for Sinhala and Hinuq.

5.2.3.3 Applicability to other phenomena

The principle of endpoint emphasis discussed above does not only underlie the completive and anticausative strategies, but is also applicable to a number of other phenomena discussed in sections 3.3 and 4.3.

First, certain phenomena described in the section about dedicated

verbal markers (section 4.3) are in line with the principle of endpoint emphasis. As argued in this section, certain languages have a dedicated verbal marker for involuntary Agents that influences the case frame associated with the verb. When this marker is added to a transitive verb, it no longer takes two arguments marked as A and O. Instead, the Patient is marked as an S argument, and the involuntary Agent is marked as an adjunct. Recall, for instance, example (81) from Mam, repeated below as (112).

MAM (England 1983: 203)

(112) *Na ø-tzeeq'a-njtz Cheep t-u7n Kyel*
PST 3SG.ABS-hit-INVL José 3SG-OBL Miguel
'Miguel accidentally hit José'

As argued above, this is in line with the endpoint emphasis principle because the Patient, i.e. the endpoint of the causal chain, is marked as syntactically more prominent than the involuntary Agent. It is marked in the same way as the single argument of an intransitive verb, while the involuntary Agent NP is demoted to a less prominent position. This shows that even dedicated markers, which are not associated with anti-causativization, can have a tendency to emphasize the endpoint of the action. Here, too, this tendency is not absolute, but in competition with the tendency to encode clauses with an Agent and a Patient as constructions with an A and an O argument. This is apparent from the observation that many dedicated markers of involuntary Agents are combined with a transitive verb and a transitive case frame, i.e. with the involuntary Agent and the Patient marked as A and O arguments (see section 4.3).

Second, the endpoint emphasis principle also underlies the phenomena discussed in section 3.3, which relate to switch-reference and intensive marking. The last phenomenon is perhaps most obviously connected to endpoint emphasis. Recall that in Barai, the intensifying marker *-ka* is added to the A argument in transitive clauses. When this A argument is inanimate or involuntary, however, the marker is added to the O argument.[9] This implies that here, too, involuntary actions correlate with a shift in marking towards the endpoint of the causal chain. A similar observation can be made concerning the switch-reference phenomena

[9]This is true in at least certain cases, for a detailed description see Olson (1979).

described in 3.3. In Quechan and in Barai, switch-reference tracks the Agent participant in clauses representing a volitional action. In clauses representing an involuntary action, by contrast, it is the Patient that is tracked instead of the Agent. Recall for instance example (47b), repeated below as (113), where different subject marking is used.

QUECHAN (Slater 1977: 27)

(113) *Taman-m* *adaw-ta*
3SG.raise.up-DS 3SG>3SG.get-TNS
'He$_i$ raised it up by accident and [he$_i$] got him$_j$'

This type of phenomenon also reflects the tendency for endpoint emphasis in clauses with involuntary Agents. Here, too, the Patient of such a clause is treated as syntactically more prominent than the involuntary Agent: it is tracked by the switch-reference system, while the involuntary Agent is not.

Finally, the principle of endpoint emphasis also applies to a type of phenomenon that has not been discussed in this dissertation so far. In some languages from my sample, evidentials can be used in clauses with involuntary Agents, under the condition that the involuntary Agent is the speaker, i.e. first person. In non-first person contexts, these evidentials usually indicate that the speaker somehow knows about the event, but did not directly witness it (see Curnow 2003, DeLancey 1985). This is illustrated in the following examples from Tariana (Brazil, Arawakan). Example (114a) shows how the non-visual evidential is normally used with events that were not witnessed by the speaker. Example (114b) shows how the use of this evidential with a first person Agent leads to an interpretation of involuntary action (Aikhenvald 2003).

TARIANA (Aikhenvald 2003: 296, 297)

(114) a. *Tʃinu kuphe di-nitu-mahka*
dog fish 3SG-steal-PST.[NVIS]
'The dog stole the fish' (speaker did not see it happen)

b. *Nu-kapi* *nu-pisa-mahka*
1SG-hand 1SG-cut-PST.[NVIS]
'I cut my hand (accidentally)'

In my sample this occurs not only in Tariana, but also in e.g. Jarawara (Brazil, Arauan, Dixon 2005: 203–207), Kolyma Yukaghir (Russia, Yukaghir, Maslova 2003: 172–174) and Slave (Canada, Na-Dene, Rice 1989: 408–409). Curnow (2003), Aikhenvald (2004) and DeLancey (1985) describe this phenomenon for a number of other languages. In the context of this section, it is possible to analyze constructions such as (114b) as reflecting the principle of endpoint emphasis, albeit less clearly than in the cases discussed earlier. As DeLancey (1985) argues, the evidentials used in these constructions indicate that there is knowledge about the endpoint of the event (the fish being stolen, the hand being cut), but not about the entire action leading up to this endpoint. In this sense, the endpoint of the action is emphasized.

To summarize, the principle of endpoint emphasis is not only at work in constructions with an anticausative or completive marker, but also in a number of other constructions that can be associated with involuntary Agents.

5.2.3.4 Motivation

So far I have argued that there is a link between constructions associated with involuntary and inanimate Agents and endpoint emphasis. This is a cross-linguistic tendency, reflected in a number of different constructions. As a result one could wonder what the functional basis for such a phenomenon is. In what follows I discuss two main factors that can shed more light on this question.

First, actions instigated by involuntary and inanimate Agents are typically considered in past contexts, when the actual event has already happened and the endpoint has been reached (for a similar observation see e.g. Jacobs (2011) and Curnow (2003)). In English, for instance, a clause like (115a), where an involuntary action is described in the past tense, is fine, but (115b) and (115c), where the progressive and the future are used, are somewhat odd. These examples might be felicitous in certain specific contexts, but they are still atypical.

ENGLISH

(115) a. *He accidentally broke a glass*
b. ? *He is accidentally breaking a glass*

c. ? *Tomorrow he will accidentally break a glass*

This is because there is typically no knowledge of involuntary actions until they have been completed. Since these actions are unplanned and not instigated on purpose, there is no awareness of the initial phases of the event that precede the endpoint. Put differently, a lack of intention correlates with a lack of awareness: there is no awareness of what is happening until it has happened. A similar idea has also been expressed by DeLancey (1981):

> The difference between an accidental and a purposeful act is precisely in whether the actor is aware of all phases or only of the act's termination. In a deliberate act, all phases, from inception to completion, are present to the consciousness of the agent; but in an inadvertent occurrence, only the termination is present.
>
> (DeLancey 1981: 649)

This implies that an involuntary action is typically viewed from its endpoint. This preference for an "endpoint viewpoint" can help to understand the tendency for constructions associated with involuntary actions to show endpoint emphasis. This does not only hold for actions instigated by involuntary Agents, but also for actions instigated by inanimate Agents, which are equally characterized by a lack of intention and planning.

There is also a second element that can explain the link between endpoint emphasis and involuntary and inanimate Agents. The principle of endpoint emphasis that was discussed above can actually be viewed from two different angles. So far it has mainly been discussed in positive terms, i.e. endpoint emphasis implies that the endpoint of an action is emphasized. It can, however, also be analyzed in negative terms: endpoint emphasis implies that the starting point and the actual development of an action are de-emphasized or made less prominent. Of course, these are two sides of the same coin, but the 'negative' perspective can also tell us something about the motivation behind endpoint emphasis. I argue that when the starting point and the development of an action are de-emphasized, this can signal that the action was not intended (see also

Jacobs 2011). In cases of endpoint emphasis, the main emphasis is on the result, i.e. on what has happened, while the aspects of how this result was achieved are de-emphasized. The attention is primarily focused on the result, while how this result was achieved is more obscured. From this, it can be inferred that the action leading up to this result was not a standard, characteristic case of Agent acting on Patient. Actions instigated by involuntary Agents are compatible with this, since it is uncharacteristic for humans to act involuntarily. As pointed out, for instance, by Van Valin & Wilkins (1996) and Kittilä (2005), humans are capable of volition, so they are normally expected to act volitionally. When they do not, this is an atypical situation. Actions instigated by inanimate Agents are also compatible with this, since, as explained in section 5.1, it is uncharacteristic for inanimates to be Agents.

To round off this chapter, I have argued that the different phenomena discussed in chapters 3 and 4 have different motivations, and that they are linked to involuntary and inanimate Agents in different ways. In 5.1 I have proposed an approach for two A-related phenomena, namely animacy-DAM and the incompatibility between inanimates and the A function. In this case, there is a direct connection between these phenomena and animacy, because they result from the fact that it is uncharacteristic for inanimates to be associated with the Agent role, and thus to be construed in A function. In 5.2 I have proposed an approach for two verb-related phenomena. I have argued that the anticausative constructions discussed in 4.1 are primarily linked to the semantics of uncontrolled events, and that the completive ones discussed in 4.2 are used to express unexpectedness. This implies that these phenomena are only indirectly linked to animacy and volitionality. Although these are separate phenomena with a distinct motivation, I have suggested in 5.2.3 that it is possible to analyze them as different reflections of a similar underlying principle. This is based on the observation that, in both cases, the type of marking that is used indicates an emphasis on the endpoint of the event.

6

Broader implications

While the previous three chapters were primarily concerned with specific phenomena and their motivations, this chapter takes a broader, more general perspective on involuntary and inanimate Agents. I analyze the observations discussed so far in terms of their implications for linguistic theory. In section 6.1, I argue that my findings have ramifications for the semantic status of volitionality. They suggest that volitionality should be considered as a feature that is not just related to Agent participants, but that is relevant at the level of the entire event. Next, in section 6.2 I examine what my observations can say about the nature of the Agent role as well as the A function. I devote special attention to the contrast with the Patient role and the O function. In existing work it is often assumed that these are contrasts between symmetrical opposites. The analysis in this study, by contrast, shows that these contrasts are asymmetrical. As a result, Agents and Patients as well as A and O are concepts that should be considered in their own terms, independently from each other.

6.1 Volitionality: Agent-related or event-related?

In this section I want to challenge the assumption that volitionality is primarily relevant at the level of Agent semantics. Such a position is adopted, for instance, by Givón (1984, 1985: 90) and Malchukov (2006). Givón categorizes Hopper & Thompson's (1980) semantic features of tran-

sitivity (see table 2.1 on page 8) depending on whether they relate to the Agent involved in the event, the action expressed by the verb or the Patient. Volitionality is categorized as an Agent feature, but the rationale behind this is not explained. A similar classification of transitivity features is proposed by Malchukov (2006). The features are ranked on a 'transitivity scale' ranging from 'A-related' over 'V-related' to 'O-related'.[1] This is illustrated in figure 6.1.

A-features		V-features			O-features	
[animacy]	[volitionality]	[kinesis]	[factivity]	[tense/aspect]	[affectedness]	[(O-)individuation]

Figure 6.1: Malchukov's (2006: 333) transitivity scale

As can be seen from this figure, volitionality is categorized an A-feature, i.e. a feature that semantically pertains to the Agent role, but the reasons for this are not discussed in detail. In this respect, Malchukov's approach is similar to Givón's, but Malchukov goes further by arguing that his transitivity scale is important at a morphosyntactic level as well. According to his "relevance principle", the features are typically marked on the constituent to which they pertain. For instance, two clauses that differ semantically in terms of affectedness are expected to differ in the morphosyntactic realization of the O argument. This is the case in the following examples from Finnish. While in (116a) the Patient 'milk' is completely affected, it is only partially affected in (116b). As a result, the two clauses differ in the marking of the O.

FINNISH (Kittilä 2002: 114)

(116) a. *Hän jo-i maido-n*
3SG.NOM drink-PST milk-ACC
'S/he drank (all) the milk'

b. *Hän jo-i maito-a*
3SG.NOM drink-PST milk-PART
'S/he drank (some) milk'

[1] Malchukov (2006) does not make a distinction between semantic roles and syntactic functions. In my terminology, A-related, V-related and O-related correspond to Agent-related, event-related and Patient-related, respectively.

For volitionality, Malchukov (2006: 335) makes a similar prediction: as an A-feature, it is expected to be coded on the A argument. Thus, he predicts a phenomenon of volitionality-DAM, where involuntary A arguments are marked differently from their volitional counterparts. An approach similar to Malchukov's (2006) is found in Næss (2007), who also argues that the transitivity feature of volitionality is related to Agents, and hence most likely to be coded on A arguments.

This approach to volitionality does not match the data discussed in this dissertation very well. The prediction that it is primarily encoded on the A argument is not borne out in the sample. As argued in section 3.1.3, volitionality-DAM is not reliably attested. There is no clear evidence suggesting that involuntary Agents, when realized as A arguments, are marked differently from their volitional counterparts. Instead, there is a wide range of verb-related markers associated with involuntary Agents. The following examples illustrate the use of anticausative, completive and dedicated markers, as discussed in chapter 4.

ETON (Van de Velde, p.c.)

(117) a. *Ì-só* *í-ŋgá-búg-ì* *mấ*
VII-plate VII-PST-break-ANTIC 1SG
'I accidentally broke the plate' *anticausative marker*

KOREAN (Strauss p.c., Robbeets p.c.)

b. *Khareyn-uy pal-i* *nulk-un* *puin-ul*
Karen-GEN foot-NOM grow.old-ATTR lady-ACC
cha-peli-ess-supni-ta
kick.INF-COMPL-PST-FORM-PLN
'Karen accidentally kicked the old lady' *completive marker*

MADURESE (Davies 2010: 277)

c. *Atin ta-tobi'* *bi'* *Ebu'*
Atin INVL-pinch AGT mother
'Mother pinched Atin by mistake' *dedicated marker*

These data show that volitionality is primarily encoded on the verb. This observation can have two possible consequences. Either volitionality really is an Agent-related feature, but Malchukov's (2006) relevance principle is inaccurate. This would imply there is no correlation at all between

Agent features and A marking. Or, alternatively, the relevance principle is correct, but volitionality is not just linked to one single participant, but to the event as a whole. As a result, encoding at the level of the verb is expected. I argue that this second option is to be preferred over the first one, for a number of reasons.

First, the relevance principle appears to apply well to features other than volitionality, so discarding it altogether is not a very attractive option. Second, and more importantly, there are some semantic considerations that support the idea that volitionality is event-related. When an Agent involuntarily instigates an action, it is the entire action that is not in line with their intentions, including the involvement of the Patient. This implies that the relevance of non-volitionality is not just confined to the initiation phase. In example (117a), for instance, it is not only the instigation of the act of breaking that was not intended by the Agent. He did not intend for any breaking to take place at all, and he also did not intend to affect the plate (or any other Patient). This implies that, in clauses with an involuntary Agent, the 'scope' (term from Kittilä 2005) of non-volitionality is the entire event. This is visualized in figure 6.2.

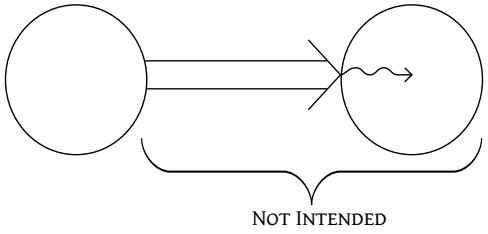

Figure 6.2: The scope of non-volitionality

A similar idea can be found in Kittilä (2005). Although he primarily considers volitionality as an Agent-feature, he uses the term "involuntary Agent events", and notes that they "are events that are instigated involitionally, which has the consequence that the lack of volitionality extends to the event in question as a whole" (p. 388). On the basis of this insight as well as the cross-linguistic data, I propose to go one step further by fully considering non-volitionality as event-related. This would imply a change in terminology from 'involuntary Agents' to 'involuntary actions',

to emphasize the idea that non-volitionality is about a type of action and not about a type of Agent.

Interestingly, Kittilä (2005) uses the notion of scope to distinguish involuntary actions from what he calls actions targeted at 'wrong' Patients (see also section 2.3.2). While such actions are not instigated involuntarily, they are accidental in that they do not affect the intended Patient, but another participant. Consider, for instance, example (118) from Squamesh.

SQUAMESH (Jacobs 2011: 227)

(118) *Chen kwélash-nexw-Ø ta nkw'ekw'chústn*
1SG.NOM shoot-COMPL-3O DET window
'I accidentally shot the window'
Context: I was aiming at another target (e.g. a bottle) but I mistakenly shot the window.

In this example, the shooting itself is not involuntary, but the effect on the window is. This can be visualized as follows.

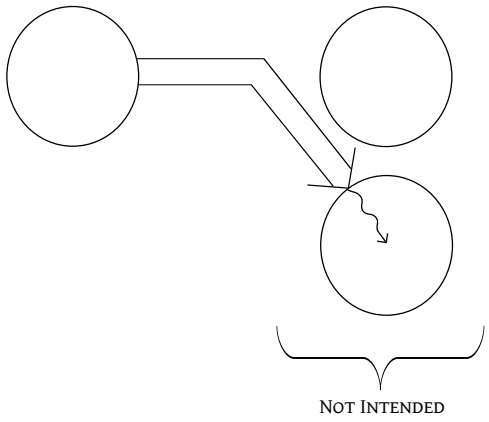

Figure 6.3: The scope of non-volitionality: actions targeted at 'wrong' Patients

While this type of actions falls outside the scope of this dissertation, one could wonder whether non-volitionality is Patient-related rather than event-related in this case. If this is the case, it is expected that these actions

will be associated with O-marking rather than verbal marking. In my sample there is not much evidence pointing in this direction. While I did not do a systematic survey, languages such as Squamesh use the same type of verbal morphology for these actions as for regular involuntary actions (example (118) above, Jacobs 2011). It appears that non-volitionality is still event-related in this case, perhaps because it is about the involvement of the Patient in the event, and not about the Patient in itself. Outside my sample, however, I know of one language where the difference between 'intended' and 'wrong' Patients does appear to correlate with O-marking. In Chepang (Nepal, Sino-Tibetan, Caughley 1982), O arguments are overtly marked only when they represent the participant the Agent intended to affect, as in example (119a).[2] When the O argument is not the participant towards whom the action was originally targeted, as in (119b), zero marking is used.

CHEPANG (Caughley 1982: 63, 68)

(119) a. *Ram-ʔi Gopal-kay ghan-ʔaka-n*
Ram-ERG Gopal-ACC beat-PST-A
'Ram beat Gopal'

b. *Puʔ-nis-ʔi həw sat-ʔaka-c-u*
older.brother-DUAL-ERG younger.brother kill-PST-DUAL-A
'The two older brothers killed the younger brother (accidentally, they intended to kill a cricket)

It remains a question for further research how widespread this phenomenon is, and what it can tell us about the difference between fully involuntary actions and actions targeted towards 'wrong' Patients.

6.2 A versus O, Agents versus Patients: asymmetrical contrasts

In the typological literature there is a recurring assumption that A and O arguments are each other's opposites. As mentioned in section 2.1.2,

[2] In this example I gloss the overt marker as ACC while Caughley (1982) labels it as a 'goal' marker.

Silverstein (1976: 123) proposes one single hierarchy that expresses the 'naturalness' of NPs in both A and O function. Those NPs that are natural as A are not natural as O, and vice versa. Similarly, Comrie (1989 [1981]), Croft (1988) and Aissen (2003) (among others) argue that A and O arguments are associated with contrasting sets of features. While A is typically animate and definite, O is typically inanimate and indefinite. Hence, it is expected that A and O are associated with opposite phenomena. While various aspects of these approaches have been criticized in the past ten years (see e.g. Næss 2004, Bickel 2008, Filimonova 2005), the idea of a symmetrical contrast is still found very often. Næss (2007), for instance, argues that it is not the syntactic functions of A and O, but the semantic roles of Agent and Patient that are opposite to each other. Agents and Patients are taken to be in 'maximal semantic opposition', i.e. if a feature X is characteristic of Agents, then non-X is characteristic of Patients (see also Næss 2006: 319). In a similar fashion, Langacker (1990: 238) argues that Agents and Patients are 'opposed in regard to all their essential features', and Bossong (2006) considers Agents and Patients as 'diametrically opposed semantic prototypes'. In this section, I argue that the idea of a symmetrical opposition is problematic. I will show that my research reveals a number of asymmetries between A and O, as well as between Agents and Patients.

6.2.1 A marking versus O marking

In chapter 3, I discussed two features that play a role in DAM, namely animacy and focus. In this section I contrast these with what is known about cross-linguistic patterns of DOM. I show that DAM and DOM are governed by different features and behave in different ways, at both a semantic and a discourse level.

6.2.1.1 Semantic parameters

The first feature that reveals an asymmetry between DAM and DOM is animacy. As argued in chapter 3, DAM is sometimes governed by animacy, in that inanimate A arguments are not marked in the same way as their animate counterparts. This same parameter is cross-linguistically also involved in DOM (see e.g. Bossong 1985, Comrie 1989 [1981], Croft 1988), but there are a number of crucial differences between animacy-DAM and animacy-DOM. Let us first consider a typical instance of animacy-DOM,

where animate O arguments are overtly marked whereas inanimate ones are zero-marked. This is illustrated in example (120) from Kwaza (Brazil, Kwaza, van der Voort 2004: 105ff.).

KWAZA (van der Voort 2004: 106, 108)

(120) a. *Wã zjwãu-'wã e'xyi-ki*
bee João-ACC sting-DECL
'A wasp stung João'

b. *Lo'nã-Ø 'je-da-ki*
hole-Ø dig-1SG-DECL
'I dug a hole'

As already pointed out in 5.1.1, a first important asymmetry between animacy-DAM and animacy-DOM concerns frequency. I argued that DAM governed by animacy is uncommon, while DOM governed by animacy appears to be rather widespread. Iemmolo (2011) investigates a convenience sample of 115 languages with DOM, in 63 of which the parameter of animacy is involved (pp. 281–285). Another significant difference is found in the motivation behind animacy-DAM and animacy-DOM. In section 5.1 I argued that inanimate A arguments are likely to receive special marking because inanimates are semantically unlikely to be associated with the Agent role. For DOM, by contrast, a similar explanation does not work: there is no element in the inherent semantics of (in)animates that makes them unlikely to be construed as Patients (see further below in section 6.2.2). Instead, animacy-DOM has been explained on the basis of frequency, in the sense that it is argued that O arguments are most often inanimate. As a result, situations where a participant in O function is animate are functionally marked. This is why animate O arguments are more likely to receive overt case (see e.g. Comrie 1989 [1981]). Alternatively, animacy-DOM has also been explained on the basis of the interaction between animacy and Patienthood. Næss (2004), for instance, argues that animate O arguments typically have a higher degree of Patienthood than their inanimate counterparts, as the affectedness of animate participants tends to be perceived as more significant than the affectedness of inanimates.[3]

[3] As discussed in section 5.1.1, it has also been argued that DOM arises as a result of ambiguity avoidance (see e.g. de Swart 2007, de Hoop & Malchukov 2008). However, such an approach is problematic (see above and the discussion in Iemmolo 2011).

Apart from animacy, there is another parameter that is usually labeled as 'semantic' (see e.g. Dalrymple & Nikolaeva 2011: 11), namely definiteness. Definiteness has long been known to be involved in DOM cross-linguistically, as illustrated by the following examples from Hebrew (Israel, Afro-Asiatic), a language outside my sample. In (121a) the definite O is overtly marked, while the indefinite O in (121b) is zero-marked.

HEBREW (Hopper & Thompson 1980: 256)

(121) a. *David natan et ha-matana lərina*
David give.PST ACC DEF-present Rina.DAT
'David gave the present to Rina'

b. *David natan Ø matana lərina*
David give.PST Ø present Rina.DAT
'David gave a present to Rina'

In approaches where A and O are considered opposites, it has been predicted that definiteness is also involved in DAM, but in an opposite way (zero marking for definite As, overt marking for indefinite ones) (e.g. Comrie 1989 [1981], Aissen 2003). However, definiteness-DAM appears to be extremely rare. Comrie (1989 [1981]: 130) and Næss (2007) noted that they did not know about clear attestations, and this is corroborated by my sample. None of the 200 languages exhibits this phenomenon, which provides a further illustration of the asymmetries between DAM and DOM. Even outside my sample I am not aware of any examples, with one exception. In Adyghe (Russia, Northwest Caucasian, Kumakhov et al. 1996), overt marking is obligatory for definite As, but optional for indefinite ones. Note, however, that this instance of DAM operates in the same way as definiteness-DOM, and not in the opposite way. This is illustrated in the following examples. In (122a), the definite A is overtly marked, while in (122a) the indefinite A is unmarked.

ADYGHE (Kumakhov et al. 1996: 97)

(122) a. *Ps'as'e-m mə-r Ø-ə-š'e-ne-p*
girl-ERG it-ABS 3SG.O-3SG.A-do-FUT-NEG
'The girl will not do it'

b. *Ps'as'e-Ø mə-r Ø-ə-š'e-ne-p*
girl-Ø it-ABS 3SG.O-3SG.A-do-FUT-NEG
'A girl will not do it'

It is also worth pointing out that, within this language, not only the marking of A, but also of S and O correlates with definiteness. S and O arguments, just like A arguments, are obligatorily marked when definite, and optionally marked when indefinite (Kumakhov et al. 1996). This implies that, in Adyghe, there is a general correlation between overt argument marking and definiteness.

To sum up, animacy-DAM and animacy-DOM are different phenomena with different motivations, and definiteness-DOM does not have a DAM-counterpart. Next, I discuss DAM and DOM as governed by discourse-related parameters, and I argue that these phenomena are not each other's mirror image, as could be expected on the basis of the literature.

6.2.1.2 Discourse-related parameters

In section 3.1.2 I showed that DAM is sometimes governed by what Lambrecht (1994) calls 'argument focus', whereby the identity of participants involved in an action is highlighted because this is the most informative element of the clause. This is illustrated by the following example from Ika, where overt ergative marking is used because the A argument is in contrastive focus.

IKA (Frank 1985: 150)

[The fieldworker tries to explain that people eat pheasant. The informants ask:]

(123) *Ikɨ gä-ža kua ikä-se' gä-za*
man eat-MED or man-ERG eat-MED
'they eat people or people eat them?'

Apart from argument focus, I identified another discourse principle involved in DAM, labeled as global focus (see also McGregor 2006, Verstraete 2010). When an A argument is focal in a global sense, its identity is highlighted because it does not match the referent who is expected to fill the A position within a wider stretch of discourse.

For DOM, the relevance of a similar or opposite notion of focus has not been claimed yet. However, it has recently been proposed that another discourse principle can be involved in DOM (Dalrymple & Nikolaeva 2011, Iemmolo 2011). Dalrymple & Nikolaeva (2011) argue that O arguments are

more likely to be overtly marked when they are topical, i.e. when it is the element in the clause about which the speaker wants to convey new information to the addressee (p. 48). Iemmolo (2011: 3, 72–73) also argues for the relevance of topicality, but he argues that the use of overt O marking is linked to unexpected topicality rather than topicality itself: it occurs in cases of topic discontinuity, such as topic shift or topic promotion. An example of topic-DOM is found in Kanuri, where overt accusative marking is most likely when the O argument is in dislocated topic position. This is illustrated in example (124).

KANURI (Iemmolo 2011: 154 citing Hutchison 1981)

(124) *Tádànzaə-á cúrò*
child-ACC see.PST
'Her/his child, I saw him'

Although topic and focus are often contrasted with each other, it is important to note that the discourse principles involved in DAM and DOM are not symmetrical opposites. A participant that is not topical does not necessarily have argument or global focus, and vice versa. As pointed out in Erteschik-Shir (1997), it is possible for participants to be neither topical nor focal. This is the case, for instance, for the participant 'book' in example (125), and for the participant 'I' in example (126).

ENGLISH (Erteschik-Shir 1997: 13)

(125) *Who did you give the book to?*
— [I]$_{TOP}$ gave the book to [Mary]$_{FOC}$

(126) *I think that [John]$_{TOP}$ [fell asleep]$_{FOC}$*

These examples show that topicality is not just the mirror image of the principle of focus that is relevant here. This is also expressed in work by Vallduví & Engdahl (1996), who argue that topicality and focus pertain to different dimensions. All of this implies that it is not possible to consider focus-DAM as the reverse phenomenon of topic-DOM.

Another difference between DAM and DOM concerns the relationship between discourse-related and semantic parameters. For DOM, Dalrymple & Nikolaeva (2011) and Iemmolo (2011) have claimed a direct connection

between topic-DOM on the one hand and DOM governed by animacy and definiteness on the other hand. They argue that the overt case marking of topical O arguments can, through grammaticalization, evolve into a system with overt marking for those O arguments that are most likely to be topics. As animacy and definiteness are the semantic features that are most closely linked to topichood, discourse-related DOM can develop into animacy- and/or definiteness-DOM. The connection between focus-DAM and animacy-DAM, by contrast, is of a different nature. In section 5.1.2 I argued that focus-DAM and animacy-DAM can be found together because they involve a similar principle: in both cases, attention is drawn to the identity of the participant in A function. This implies that focus-DAM and animacy-DAM are alike, but independent phenomena. The connection between them is one of similarity, and not one of diachronic dependency, where one type of DAM develops out of the other one. This difference between DOM and DAM is illustrated in figure 6.4.

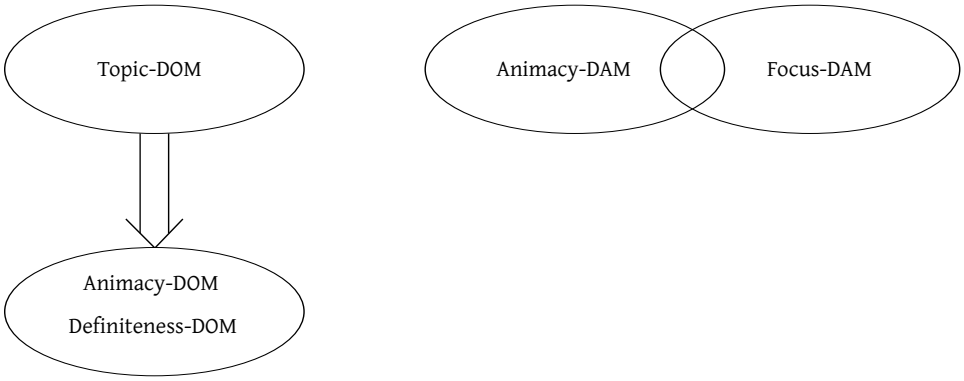

Figure 6.4: The relationship between different types of DOM (Dalrymple & Nikolaeva 2011, Iemmolo 2011) compared to the relationship between different types of DAM

In this section, I have argued that it is not possible to consider DAM and DOM as mirror images of each other. Animacy-DAM is not the opposite phenomenon of animacy-DOM, and there is no well-attested DAM counterpart to definiteness-DOM. Furthermore, there are different discourse principles involved in DAM and DOM. In the next section I do not focus on

differences in the formal marking of A and O, but on asymmetries in the semantics of Agents and Patients.

6.2.2 Agent-Patient asymmetries

When considering the causal chain of a typical transitive action, the roles of Agent and Patient are situated at opposite ends. As a result, these roles are often regarded as each other's mirror image (e.g. Næss 2006, Bossong 2006, Langacker 1990). In this section, I nuance this view by highlighting two important asymmetries between Agenthood and Patienthood. First, I show that the Agent role is more restricted than the Patient role because its semantics is not readily compatible with every type of referent. Second, I argue that the features characterizing Patients allow for more variability than those involved in Agent semantics, i.e. the Patient role is more a matter of degree than the Agent role.

The first type of asymmetry I want to discuss concerns the pairing of role-related features with different types of referents. In section 5.1.2 I argued that animacy-DAM occurs because the Agent features do not match the inherent semantics of inanimates. The feature of instigation is not easily associated with non-motive inanimates, while the feature of transmission is not very likely to be found with inanimates in general. This implies that the Agent role is such that it is not straightforwardly compatible with any type of referent. Put differently, it is a restricted role that comes with prerequisites, to the effect that it is much more likely to be associated with animates than with inanimates. When looking at the Patient role, by contrast, a different picture emerges. Typical Patients are involved as the endpoint of a transitive action, and in addition they are affected by it (see section 2.2.2). These two features are not as restrictive as the Agent features. Participants do not have to exhibit an inherent ability for movement, or something similar, in order to be construed as the endpoint of an action. Similarly, any type of referent can be affected by an action in some way; this does not require certain abilities or characteristics. As a result, the Patient role can be regarded as less restrictive than the Agent role.

This asymmetry between Agents and Patients results in a difference between A and O with respect to the restriction phenomena discussed in 3.2. In a number of languages, (non-motive) inanimate participants cannot

be construed as A arguments because they are not readily compatible with the Agent role (see also section 5.1.2). For O arguments, by contrast, a similar or opposite phenomenon is, as far as I am aware, not clearly attested. This is not surprising: since the Patient role is compatible with any type of referent, there is no reason to preclude (in)animates from the O function. Furthermore, the observation that the Agent role is more restrictive than the Patient role correlates with a difference in the motivation of DAM and DOM, which was noted in section 6.2.1. The account of animacy-DAM I proposed in section 5.1.2 explicitly draws on the low semantic compatibility between inanimate referents and the Agent role. It is uncharacteristic for inanimates to be construed as Agents, and as a result inanimate A arguments can take special case marking. For DOM, by contrast, a similar account does not apply. Both animates and inanimates are equally compatible with the Patient role, so the issue of compatibility cannot be the driving force behind animacy-DOM.

The second asymmetry does not concern the association between features and referents, but rather the features themselves. As mentioned above, Patients typically are affected endpoints. In the literature it has repeatedly been pointed out that this feature of affectedness is a matter of degree (see e.g. Næss 2007, Beavers 2011). Beavers (2011) mainly focuses on differences in Patient affectedness correlating with the use of different verbs, as illustrated in (127).

ENGLISH (Beavers 2011: 336)

(127) a. *John ate the apple up* [Apple is completely gone]
b. *John cut the apple* [Apple cut, not necessarily to a particular degree]
c. *John kicked the apple* [Apple impinged, not necessarily affected]
d. *John touched the apple* [Apple manipulated, not necessarily impinged]

However, even clauses with the same verb can express different degrees of affectedness. 'Breaking a cup' can refer to an action whereby the cup's handle is broken of, or to the smashing of a cup in tiny pieces (see also Næss 2004). These different degrees of affectedness are visualized in figure 6.5. This gradability of affectedness implies that it is possible to gradually move away from the prototypical Patient, who has a high degree of affectedness, toward less and less typical instances.

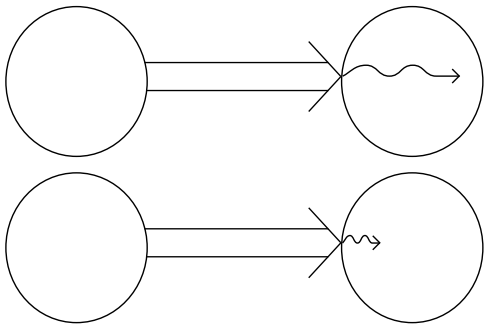

Figure 6.5: Different degrees of affectedness

For Agenthood, by contrast, I argue that the same does not hold because the features of instigation and transmission are not gradable. As discussed in 2.2.2, instigation involves the initiating of an action. For this type of feature, degree is not relevant. It is hard to think of a situation where an Agent has a low degree of instigation because the action is only partially initiated. While actions are not always carried out completely, their initiation is a matter of yes or no rather than of high–intermediate–low. Of course, in the case of part-whole relations it is possible that only a specific part of an Agent is actually involved in initiating an action, but this is not the same as partial instigation. This can be illustrated using the following example from Langacker (2009).

ENGLISH (Langacker 2009: 50)

(128) *She hit him (with her left hand / her right elbow / the top of her head)*

In this clause, it is only a body part of the Agent participant 'she' that is actually involved in the instigation of the action. Nevertheless, this does not mean that the action of hitting is only partially initiated by the Agent, in the same way that a Patient can be only partially affected. Another element that is not related to the instigation of an action is the degree of intensity with which it is carried out. Consider, for instance, the following examples from English.

ENGLISH (BNC)

(129) a. *Wildly angry at this insult to Tess, he hit the man in the face.*

b. *He batters the girls to death.*

The clause in (129b) represents an action that is more intense than the action in (129a). In this sense, there is a difference in degree, but this is not related to the instigation of the action. It is not possible to say, for instance, that the action in (129b) is 'more instigated' than the one in (129a). While the nature of these actions is different, there is no fundamental difference with respect to their initiation. Put differently, instigation is a matter of the presence of an energy flow departing from a participant, and not what this energy flow looks like.

A similar observation can be made for the feature of transmission, in which an action is transferred toward another participant. Again, it is hard to conceive of this feature in terms of a cline, where a high value gradually diminishes to a low value. When an action is instigated, it can be either directed toward a Patient, or not at all. This is not a matter of degrees, with 'full' transmission contrasting with 'partial' and 'low' transmission. Of course, it is possible to measure how succesful this transmission is in terms of its effects on the other participant, but in that case we are talking about Patient affectedness rather than about an Agent-related feature. In the figure in 6.5, transmission is visualized by the big arrow departing from the Agent and going toward the Patient, and not by the small arrow indicating Patient affectedness. Summing up, neither the feature of instigation nor the feature of transmission is gradable in the way affectedness is.

This implies that Agenthood differs from Patienthood at a fundamental semantic level. While the Patient role is inherently gradable and can have a range of typical and less typical instantiations, the Agent role is less prone to this type of variability. This asymmetry is situated at a rather abstract level, but this does not mean that it cannot have ramifications for the marking of A and O, which are connected to the semantic roles of Agent and Patient. I would like to raise the hypothesis that the difference in gradability between Agents and Patients is one of the reasons why DOM is cross-linguistically more common than DAM. Since there are different degrees of Patienthood, this might make the O function more likely to develop different types of marking, in order to distinguish between different instantiations. Næss's (2004) account of DOM explicitly departs from this idea: she argues that inanimate and indefinite O arguments are less likely to receive overt marking because they are less saliently affected than their

animate and definite counterparts. In her view, then, DOM is a device that marks the difference between high and low affectedness (see also Moravcsik 1978a). For A, by contrast, differential case marking is less likely to develop because there are no degrees in Agenthood to be distinguished. Of course, DAM phenomena can still surface in some cases (see 3.1), but as argued in section 5.1 they do not mark a distinction between high and low Agenthood.

In this section, I have pointed out a number of asymmetries between A and O on the one hand and Agents and Patients on the other hand, in order to balance the view of a symmetric opposition. I have shown that the features involved in A and O marking are not the same, and I have argued that the semantic roles of Agent and Patient are different in nature.

7

Conclusion

This dissertation is a study of involuntary and inanimate Agents. More specifically, I investigated how these Agents can affect clause structure in the different languages of the world. To this end, I used a sample of 200 languages, which is described in section 2.3.1 (see also appendix A). The data I collected from this sample were discussed in chapters 3 and 4, where I showed that there is a wide range of phenomena linked to the presence of involuntary and inanimate Agents (see the overview in appendix B). On the one hand, there are phenomena which pertain to the morphosyntactic encoding of A arguments (A-related phenomena, chapter 3). This type of phenomenon is rare overall. I showed that it is sometimes found with inanimate Agents, but not reliably attested with involuntary Agents. On the other hand, there are phenomena associated with the verb (verb-related phenomena, chapter 4). They involve marking that has scope over the event as a whole, and that usually takes the form of verbal morphology or auxiliaries. I argued that constructions with involuntary or inanimate Agents can be characterized by markers of anticausative voice (section 4.1) or of completive aspect (section 4.2). In addition, a number of languages have verbal markers whose use is limited to clauses with involuntary Agents ('dedicated' phenomena, section 4.3).

In chapter 5, I argued that this range of phenomena is also diverse functionally, in the sense that they are not all connected to volitionality and animacy in exactly the same way. While A-related phenomena are directly linked to animacy (section 5.1), this is not the case for verb-

related phenomena associated with anticausative or completive marking (sections 5.2.1 and 5.2.2). Instead, these phenomena are connected to a more general semantic concept, of which involuntary and inanimate Agents are two possible instantiations.

An important consequence of the data and analysis presented in chapters 3, 4 and 5 concerns the relationship between the features of animacy and volitionality and the concept of transitivity. In the existing literature (see section 2.1), this concept is often invoked in order to explain phenomena connected to inanimate and involuntary Agents. It is expected that clauses with such Agents show reduced morphosyntactic transitivity as a result of their reduced semantic transitivity (see e.g. Hopper & Thompson 1980, Malchukov 2006, Næss 2007, Kittilä 2005). This would imply that such clauses are mainly characterized by deviant case marking or by detransitive verbal marking. In this dissertation, however, I have found little evidence for the relevance of either morphosyntactic or semantic transitivity when it comes to involuntary and inanimate Agents.

First of all, many phenomena that are connected to involuntary and inanimate Agents cannot be linked to reduced morphosyntactic transitivity in any way. This holds, for instance, for completive phenomena, which do not involve a change in case marking or in valency. If anything, the use of completive markers should be connected to high morphosyntactic transitivity, since they are used in contexts of telicity, characterized by Hopper & Thompson (1980) as a parameter of high transitivity. Another example is found with a number of 'dedicated' phenomena, where non-volitionality is signaled through the use of a verbal marker that does not entail a decrease in valency or a change in case marking (see section 4.3). Furthermore, in section 3.3 I discussed two phenomena that are related to switch-reference and emphasis marking, and that do not show any clear links with morphosyntactic transitivity at all.

Admittedly, there are a number of phenomena that do appear to be connected to reduced morphosyntactic transitivity. However, these phenomena do not confirm the 'transitivity hypothesis' either, since I argued that they do not arise as a result of the low semantic transitivity associated with involuntary and inanimate Agents. A case in point here is DAM: in principle, the use of special case marking for inanimate Agents could be attributed to reduced morphosyntactic and semantic transitivity. In sec-

tion 5.1.2, however, I argued that it results from low compatibility between inanimate participants and the Agent role. This analysis does not invoke the concept of transitivity, and thus also avoids a number of problems (discussed in section 5.1.1). A further illustration comes from anticausative phenomena. These involve the use of detransitivizing markers, and as a result they could be interpreted in terms of reduced morphosyntactic and semantic transitivity. In section 5.2.1, however, I argued that this is not an attractive option, since such an analysis fails to account for the full range of variation in these phenomena. Instead, I proposed an account that uses the notion of uncontrolled events, which is independent from the notion of transitivity.

To conclude, building on the data and analyses presented in this dissertation, I would like to suggest that there is only a superficial link between the features of animacy and volitionality and the concept of transitivity, and not a fundamental connection. I am aware that this is a controversial and difficult hypothesis, however, and I hope that chapters 3, 4 and 5 will be the starting point for further debate.

The findings presented in this dissertation do not only have implications for the relationship between transitivity and the features of animacy and volitionality. In chapter 6 I discussed two further issues that are relevant from a broader theoretical perspective. First, my findings shed new light on the semantic status of the feature of volitionality. While Kittilä (2005), Malchukov (2006) and Næss (2007) consider this feature to be Agent-related, I argued that it pertains to the event as a whole, which implies that it is relevant at a broader semantic level. Second, my findings can also tell something about the nature of the A function and the Agent role, and more specifically about their relationship with the O function and the Patient role. While this relationship is often regarded as a fairly symmetrical opposition, I pointed out a number of important asymmetries that need to be taken into account. I argued that the cross-linguistic marking of A and O arguments works in a different way and is governed by different features. This observation disproves the predictions made by, for instance, Comrie (1989 [1981]) and Aissen (2003), who expect DAM and DOM to be each other's mirror image. Furthermore, I argued that the Agent role differs from the Patient role because it is not readily compatible with all types of referents, and because it is not a gradable notion that comes in different degrees.

These observations raise a number of problems for the Silverstein hierarchy (1976) and variants thereof (see e.g. Comrie 1989 [1981], Dixon 1994). As explained in section 2.1.2, such a hierarchy approaches A and O arguments using one single cline of referents: those referents which are atypical as A are typical as O, and vice versa, to the effect that A and O are treated as opposites. This is illustrated in the following figure (repeated from figure 2.1).

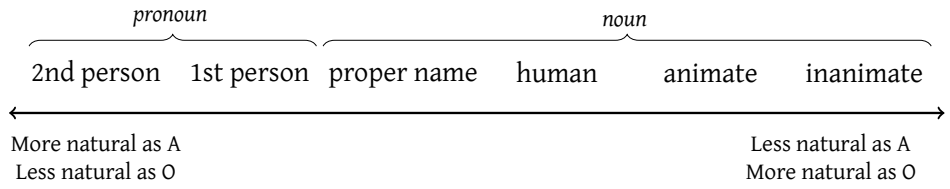

Figure 7.1: The Silverstein (1976) Hierarchy

Such a hierarchy is problematic because it glosses over the asymmetries between A and O at a conceptual level. For instance, it does not reflect the fact that the Patient role, and hence the O function, is in principle readily compatible with any type of referent, while the same does not hold for the Agent role and the A function. This implies that there is an important difference between the atypicality of inanimate A arguments and, for instance, the atypicality of second person O arguments, which is not captured in the hierarchy. In addition, the hierarchy cannot capture the differences in the marking of A and O very well. The hierarchy predicts that the lower a referent is on the hierarchy, the more likely it is to receive overt A marking, and the less likely it is to receive overt O marking. This implies, however, that features which are only relevant for either A or O marking cannot easily be incorporated. In section 6.2.1, for instance, I argued that the relevance of topicality is limited to DOM, while argument focus is only involved in DAM. Furthermore, in section 5.1 I argued that the difference between motive and non-motive inanimates plays a role in A-related phenomena, but it is not clear how such a contrast can be relevant for O-related phenomena.

These objections are not the only problems that are associated with the Silverstein hierarchy. Bickel (2008) and Bickel & Witzlack (2008) have

already argued that the cross-linguistic empirical evidence for this construct is rather limited. I hope that the findings presented in this dissertation can add a new dimension to their criticism. For instance, it could be considered to break up the hierarchy into separate features (e.g. ±pronoun, ±animacy, ±definiteness), which can each interact with A and/or O marking in different ways. While such a solution might appear less elegant, I believe it is empirically and functionally more adequate.

Appendix A

200-language sample

Languages are listed per family and, where applicable, subfamily and genus, according to the classification adopted by the World Atlas of Language Structures Online (Dryer & Haspelmath 2011).

Afro-Asiatic

Berber *Tashelhiyt* (Rapold 2010)
Semitic *Maltese* (Borg & Azzopardi-Alexander 1997)

Chadic

Biu-Mandara *Hdi* (Frajzyngier 2002)
West Chadic *Hausa* (Jaggar 2001, Heide 1989)

Cushitic

Eastern Cushitic *Dhaasanac* (Tosco 2001)
Southern Cushitic *Iraqw* (Mous 1993)

Omotic

North Omotic *Sheko* (Hellenthal 2010)
South Omotic *Dime* (Seyoum 2008)

Ainu

Ainu (Tamura 2000)

Algic

Algonquian *Plains Cree* (Dahlstrom 1986)

Altaic

Mongolic *Mangghuer* (Slater 2003)
Tungusic *Udihe* (Nikolaeva & Tolskaya 2001)

Turkic *Turkish* (Göksel & Kerslake 2005)

Arauan

Jarawara (Dixon 2005)

Araucanian

Mapudungun (Smeets 2008)

Arawakan

Tariana (Aikhenvald 2003)

Australian

Gaagudju *Gaagudju* (Harvey 2002)
Jaminjungan *Jaminjung* (Schultze-Berndt 2000)
Mangarayi *Mangarayi* (Merlan 1982)
Nyulnyulan *Warrwa* (McGregor 2006)
Pama-Nyungan *Guugu Yimidhirr* (Haviland 1979), *Kuku Yalanji* (Patz 2002), *Yidiny* (Dixon 1977), *Umpithamu* (Verstraete 2010)
Tangkic *Kayardild* (Evans 1995)
West Barkly *Jingulu* (Pensalfini 2003)

Gunwinyguan

Gunwinygic *Bininj Gun-wok* (Evans 2003)
Yangmanic *Wardaman* (Merlan 1994)

Austro-Asiatic

Munda *Mundari* (Cook 1965)

Mon-Khmer

Aslian *Semelai* (Kruspe 2004)
Bahnaric *Chrau* (Thomas 1969)
Katuic *Pacoh* (Alves 2006)
Palaung-Khmuic *Khmu* (Svantesson 1983)
Viet-Muong *Vietnamese* (Nguyễn 1997)

Austronesian

Central Malayo-Polynesian *Tetun* (van Klinken 1999)
Malayic *Indonesian* (Sneddon 1996)
Madurese *Madurese* (Davies 2010)
Meso-Philippine *Tagalog* (Himmelmann 2006, Dell 1983–1984)
Northwest Malayo-Polynesian *Beg'ak* (Goudswaard 2005)
Northern Philippines *Dupaningan Agta* (Robinson 2008)
Paiwanic *Kavalan* (Liao 2004)
Puyuma *Puyuma* (Teng 2008)
Sulawesi *Tukang Besi* (Donohue 1999a)

Eastern Malayo-Polynesian

Oceanic *Samoan* (Mosel & Hovdhaugen 1992), *Futuna*

(Moyse-Faurie 1997), *Nêlêmwa* (Bril 2002)
South Halmahera – West New Guinea *Warembori* (Donohue 1999b)

Aymaran

Aymara (Hardman 2001)

Barbacoan

Awa Pit (Curnow 1997)

Basque

Basque (Hualde & Ortiz de Urbina 2003)

Border

Imonda (Seiler 1985)

Bosavi

Kaluli (Schieffelin 1995)

Burushaski

Burushaski (Munshi 2006)

Caddoan

Wichita (Rood 1976, 1996)

Cariban

Tiriyó (Meira 1999)

Cahuapanan

Shiwilu (Valenzuela 2011)

Chapacura-Wanham

Wari' (Everett & Kern 1997)

Chibchan

Aruak *Ika* (Frank 1985)
Rama *Rama* (Grinevald 1988)

Choco

Epena Pedee (Harms 1994)

Chukotko-Kamchatkan

Northern Chukotko-Kamchatkan *Chukchi* (Dunn 1999)

Dravidian

Southern Dravidian *Kannada* (Schiffman 1983, Sridhar 1990)

East Bird's Head

Meyah (Gravelle 2004)

Eskimo-Aleut

Eskimo *Tunumiisut* (Mennecier 1995)

Guaicuruan

Pilagà (Vidal 2001)

Haida

Haida (Enrico 2003)

Hmong-Mien

Hmong Njua (Lyman 1979, Harriehausen 1990)

Hokan

Pomoan *Eastern Pomo* (McLendon 1975)
Yuman *Quechan* (Slater 1977)
Chimariko *Chimariko* (Jany 2009)

Indo-European

Albanian *Albanian* (Kallulli 1999)
Armenian *Eastern Armenian* (Dum-Tragut 2009)
Slavic *Polish* (Swan 2002, Bielec 1998)
Germanic *German* (Schäfer 2008)
Indic *Sinhala* (Chandralal 2010), *Hindi* (Kachru 2006), *Bengali* (Milne 1993, Ghomeshi 1991)
Romance *Spanish* (Cuervo 2003)

Iroquoian

Northern Iroquoian *Wyandot* (Kopris 2001)
Southern Iroquoian *Oklahoma Cherokee* (Montgomery-Anderson 2008)

Japanese

Japanese (Kaiser et al. 2001)

Jivaroan

Aguaruna (Overall 2007)

Kadugli

Krongo (Reh 1985)

Kartvelian

Laz (Lacroix 2009)

Karok

Karok (Macaulay 2000)

Keresan

Laguna Keres (Lachler 2006)

Khoisan

Sandawe *Sandawe* (Eaton 2010)
Central Khoisan *Kxoe* (Kilian-Hatz 2008)

Kiowa-Tanoan

Kiowa (Watkins 1984)

Korean

Korean (Sohn 1999)

Kuot

Kuot (Lindström 2002)

Kusunda

Kusunda (Watters 2006)

Kwaza

Kwaza (van der Voort 2004)

Lower Sepik-Ramu

Lower Sepik *Yimas* (Foley 1991)

Macro-Ge

Bororo *Bororo* (Crowell 1979)

Matacoan

Wichí (Terraza 2009)

Mayan

Mam (England 1983), *Jakaltek* (Craig 1977)

Misumalpan

Ulwa (Green 1999)

Mixe-Zoque

San Miguel Chimalapa Zoque (Johnson 2000)

Mosetenan

Mosetén (Sakel 2003)

Movima

Movima (Haude 2006)

Muskogean

Koasati (Kimball 1991)

Mura

Pirahã (Everett 1986)

Nadahup

Hup (Epps 2008)

Na-Dene

Athapaskan *Tanacross* (Holton 2000), *Slave* (Rice 1989)

Nakh-Daghestanian

Nakh *Ingush* (Nichols 2011)

Daghestanian

Avar-Andic-Tsezic *Hinuq* (Forker 2010)
Lezgic *Lezgian* (Haspelmath 1993a), *Agul* (Ganenkov et al. 2008), *Tsakhur* (Schulze 1997)

Nambikuaran

Mamaindê (Eberhard 2009)

Niger-Congo

Kwa *Fongbe* (Lefebvre & Brousseau 2002)
Gur *Supyire* (Carlson 1994)
Dogon *Jamsay* (Heath 2008)
Kru *Dadjriwalé* (Gode 2006)

Adamawa-Ubangi

Adamawa *Mundang* (Elders 1995)

Atlantic

Southern Atlantic *Kisi* (Childs 1995)
Northern Atlantic *Fula (Nigerian)* (McIntosh 1984)

Benue-Congo

Bantoid *Eton* (Van de Velde 2008)
Cross-River *Kana* (Ikoro 1996)

Mande

Western Mande *Jalonke* (Lüpke 2005)

Nilo-Saharan

Fur *Fur* (Jakobi 1990)
Songhay *Koyra Chiini* (Heath 1999)

Central Sudanic

Moru-Ma'di *Ma'di* (Blackings & Fabb 2003)
Lendu *Ngiti* (Lojenga 1994)

Eastern Sudanic

Nilotic *Turkana* (Dimmendaal 1982)
Surmic *Murle* (Arensen 1982)
Nubian *Kunuz Nubian* (Abdel-Hafiz 1988)

Saharan

Eastern Saharan *Beria* (Jakobi & Crass 2004)

Nivkh

Nivkh (Gruzdeva 1998, Mattissen 2003)

Northwest Caucasian

Abkhaz (Hewitt 1979)

other

Creoles and Pidgins *Nubi* (Wellens 2003)

Oksapmin

Oksapmin (Loughnane 2009)

Oto-Manguean

Chinantecan *Sochiapan Chinantec* (Foris 2000)
Mixtecan *Chalcatongo Mixtec* (Macaulay 1996)
Subtiaba-Tlapanec *Tlapanec* (Wichmann 2009)
Zapotecan *Coatlán-Loxicha Zapotec* (Beam de Azcona 2004)

Panoan

Shipibo-Konibo (Valenzuela 2003), *Matses* (Fleck 2003)

Peba-Yaguan

Yagua (Payne 1985)

Penutian

Sahaptian *Nez Perce* (Rude 1985)
Wintuan *Wintu* (Pitkin 1984)

Utian

Costanoan *Mutsun* (Okrand 1977)

Puinave

Wansojot (Higuita 2008)

Quechuan

Imbabura Quechua (Cole 1985)

Salishan

Central Salish *Squamesh* (Jacobs 2011)
Interior Salish *St'át'imcets* (van Eijk 1997)

Senagi

Menggwa Dla (de Sousa 2006)

Sepik

Ram *Awtuw* (Felman 1986)
Sepik Hill *Alamblak* (Bruce 1984)

Sino-Tibetan

Chinese *Mandarin* (Teng 1975)

Tibeto-Burman

Bodic *Dhimal* (King 2007), *Belhare* (Bickel 2004)
Burmese-Lolo *Burmese* (Okell 1969)
Kuki-Chin *Meithei* (Chelliah 1997)
Lepcha *Lepcha* (Plaisier 2007)
Qiangic *Qiang* (LaPolla 2003)
Tani *Galo* (Post 2007)
Naxi *Yongning Na* (Lidz 2010)

Siouan

Lakhota (Van Valin 1985)

Solomons East Papuan

Lavukaleve *Lavukaleve* (Terrill 2003)
Savosavo *Savosavo* (Wegener 2008)

Tacanan

Cavineña (Guillaume 2004)

Tai-Kadai

Lao (Enfield 2007)

Teberan-Pawaian

Teberan *Folopa* (Anderson & Wade 1988)

Timor-Alor-Pantar

Greater Alor *Teiwa* (Klamer 2010)
Bunaq *Bunaq* (Schapper 2009)

Totonacan

Misantla Totonac (MacKay 1999)

Trans-New Guinea

Angan *Menya* (Whitehead 2004)
Finisterre-Huon *Kâte* (Suter 2010)
Dani *Lower Grand Valley Dani* (Bromley 1981)
Eastern Highlands *Fore* (Scott 1978, Donohue & Donohue 1998)
Koiarian *Barai* (Olson 1978, 1979)
Madang *Waskia* (Ross & Paol 1978)
Ok *Mian* (Fedden 2011)

Trumai

Trumai (Guirardello 1999)

Tucanoan

Guanano (Stenzel 2004)

Tupian

Arikem *Karitiana* (Storto 1999)
Tupari *Mekens* (Galucio 2001)
Tupi-Guaraní *Tapiete* (González 2005)

Uralic

Finno-Ugric

Finnic *Finnish* (Kittilä 2005, p.c.)
Ugric *Hungarian* (Szent-Iványi 1995)

Urarina

Urarina (Olawsky 2006)

Uto-Aztecan

Aztecan *Pipil* (Campbell 1985)
Cahita *Yaqui* (Guerrero-Valenzuela 2005)
Numic *Paiute* (Thornes 2003)
Takic *Cupeño* (Hill 1969)
Tarahumaran *Warihío* (Armendáriz 2005)

Wakashan

Southern Wakashan *Nuuchahnulth* (Davidson 2002)

Wappo-Yukian

Wappo *Wappo* (Thompson et al. 2006)

Warao

Warao (Romero-Figueroa 1997)

West Papuan

North Halmaheran *Tidore* (van Staden 2000)
North-Central Bird's Head *Maybrat* (Dol 2007)

Yanomam

Yanomam *Sanuma* (Borgman 1990)

Yeniseian

Ket (Vajda 2004)

Yuchi

Yuchi (Linn 2001)

Yukaghir

Kolyma Yukaghir (Maslova 2003)

Yuracare

Yurakaré (van Gijn 2006)

Appendix B

Overview of phenomena

This appendix lists the phenomena linked to involuntary or inanimate Agents that are found in the languages discussed in this dissertation. For languages not mentioned in this overview I could not find specific information on such phenomena.

DAM: Differential A Marking governed by animacy, or by both animacy and focus (section 3.1)
Restr.: Restriction phenomena governed by animacy or motivity (section 3.2)
Other: Other phenomena (section 3.3)
Anticaus.: Anticausative and related phenomena (section 4.1)
Compl.: Completive phenomena (section 4.2)
Dedic.: Dedicated phenomena (section 4.3)

	A-related			Verb-related		
	DAM	Restr.	Other	Anticaus.	Compl.	Dedic.
Abkhaz						x
Agul				x		
Albanian				x		
Barai			x			
Beg'ak				x		
Belhare		x				
Bengali					x	

	A-related			Verb-related		
	DAM	Restr.	Other	Anticaus.	Compl.	Dedic.
Burmese					x	
Chrau						x
Cupeño				x		
Dhimal				x		
Eton				x		
Finnish				x		
Fongbe		x				
Fore	x					
Futuna				x		
German				x		
Guugu Yimidhirr				x		
Hare (Slave)		x				
Hausa		x				
Hindi		x		x		
Hinuq				x		
Indonesian				x	x	
Jakaltek		x				
Japanese		x			x	
Jingulu	x					
Kannada					x	
Kavalan	x					
Khmu		x				x
Kiowa		x		x		
Koasati				x		
Korean		x		x	x	
Koyra Chiini		x				
Kuku Yalanji	x			x		
Lakhota		x				
Laz				x		
Lezgian				x		
Madurese						x
Mam						x
Mamaindê						x
Mandarin					x	
Mapudungun						x
Matses		x				
Nêlêmwa	x					

	A-related			Verb-related		
	DAM	Restr.	Other	Anticaus.	Compl.	Dedic.
Okl. Cherokee						x
Pacoh						x
Polish				x		
Puyuma				x		
Qiang	x					
Quechan			x			
S. Chinantec		x				
S.M.C Zoque		x				
Samoan	x			x		
Semelai		x		x		
Shipibo-Konibo		x		x		
Sinhala				x		
Spanish				x		
Squamesh					x	
St'át'imcets				x		
Tagalog					x	
Tanacross				x		x
Tashelhiyt				x		
Tlapanec		x				
Tsakhur	x					
Tukang Besi						x
Tunumiisut		x				x
Ulwa				x		
Umpithamu	x					
Wappo						x
Waskia	x					
Yidiny				x		
Yimas		x				
Yuchi		x				

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