Research Article

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Antipassive Adds an Argument

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Abstract: In this paper, I give an analysis of the syntax of the antipassive construction in the Eskimo-Aleut language family. In this account, I follow previous works, such as Benua (1997), Basilico (2004, 2012), Aldridge (2012), and Johns and Kučerová (2017) and posit that the antipassive, oblique argument occupies a different position than the transitive, absolutive object. However, I do not argue that the absolutive direct object argument and the oblique antipassive object occupy the same base position. Instead, I analyze the antipassive marker as an element which creates an argument position: it turns the verb to which it is attached from a predicate of events into a relation between an event and an entity, introducing the undergoer thematic role predicate and its argument. By considering that the antipassive morpheme introduces an argument, rather than saturating or demoting one, we explain a number of interesting phenomena: why 'agentive' verbs do not appear with an antipassive morpheme while 'patientive' verbs do, why the antipassive is associated with the inchoative as well as the applicative, and why transitive impersonal verbs do not undergo antipassivization.

Keywords: antipassive; argument structure; transitivity

1 Introduction

The antipassive is a construction found in a number of ergative languages (though not limited to such languages[1]), in which it appears that an intransitivization process has applied. The following examples (1) from Inuktitut (Baffin Island), illustrate this phenomenon (Spreng 2006, 2012).[2]

(1) Baffin Island Inuktitut (Spreng 2006, 2012)

a) *Piita-up* *naalautiq* *surak-taa*.
Peter-ERG radio.ABS break-PART.3SG.S/3SG.O
'Peter broke the radio.'

b) *Piita* *surak-**si**-juq* *(naalauti-mik)*.
Peter.ABS break-AP-PART.3SG (radio-MIK)
'Peter is breaking the radio.'

1 Polinsky (2016) notes that antipassivization is not always associated with ergative languages. A number of authors have considered that the antipassive construction occurs outside syntactically or even morphologically ergative languages.

2 Here, Spreng (2012) glosses the oblique case of the internal argument in the antipassive as mik case; I have also seen this case glossed an instrumental or modalis. Miyaokoa (2012) labels the cognate oblique case marking suffix in Central Alaskan Yup'ik as ABM, for ablative/modalis. Also, Miyaoka (2012) glosses the case marking on the transitive subject REL, for relative case.

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c) **Piita* *surak-tuq* *naalauti-mik*.
Peter.ABS break-PART.3SG radio-MIK
'Peter broke the radio.'

Example (1) involves the root *surak* 'break' in both the transitive and antipassive. Sentence (1a) shows the transitive variant. The subject is in the ergative case and the object is in the absolutive case. The verb also shows agreement with both the subject and the object. In (1b), we see the antipassive variant. The verb is suffixed with the antipassive morpheme *-si*. The subject is in the absolutive case and the object is in an oblique case. The verb shows agreement with the subject only. In (1c), we see that the antipassive morpheme is required with this verb in the intransitive frame.

Curiously, not all verbs show a special antipassive morpheme in the intransitive frame. The verb 'eat', for example, has both a transitive and antipassive variant but no special morphology on the verb in the intransitive variant (Spreng 2012).

(2) Baffin Island Inuktitut (Spreng 2012)

a) *Anguti-up* *palaugaaq* *niri-vaa*.
man-ERG bread.ABS eat-IND.3SG.S/3SG.O
'The man ate the bread.'

b) *Anguti* *niri-vuq* *palaugaar-mik*.
man.ABS eat-PART.3SG bread-MIK
'The man ate bread.'

I argue that this difference in the presence or absence of the antipassive morpheme is crucial to understanding the function of the antipassive morpheme and the syntactic introduction of arguments. Rather than treat the antipassive morpheme as an intransitivizer, I posit that the antipassive marker *–si* is an element which creates an argument position: it turns the verb to which it is attached from a predicate of events into a relation between an event and an entity, introducing the undergoer thematic role predicate and its argument.

(3)

a) surak: λe [break(e)]
b) surak-si: λxλe [break(e) & UND(e, x)]

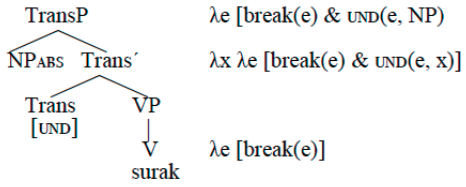
In this account, I follow previous works, such as Benua (1997), Basilico (2004, 2012), Aldridge (2012), and Johns and Kučerová (2017) and posit that the antipassive, oblique argument occupies a different position than the transitive, absolutive object. In the transitive, the internal argument is introduced within a separate functional category (TransP) that dominates VP. In this case, the internal argument is 'severed' from the verb itself, in much the same way as the external argument has been argued to be severed from the verb (Kratzer 1996). A special theta role predicate (undergoer) appears in the head of Trans, and this theta role predicate is a relation between an event and an entity: λxλe [UND (e, x)].[3] The event argument of the verb and that of the undergoer predicate are identified as the same through Event Identification (Kratzer 1996); in this way the internal argument is semantically integrated into the event. Thus, TransP is the counterpart of Kratzer's (1996) VoiceP for internal arguments.

When the antipassive morpheme is attached, the internal argument appears as a complement to the verb itself; the argument position that is introduced is within the VP. The syntax associated with the two forms (at the level of the introduction of the internal argument) is as follows.

3 Here, there are obvious similarities to the concepts of 'Proto Agent' and 'Proto Patient' in Dowty (2002), the actor and undergoer macroroles of Role and Reference Grammar (van Valin and LaPolla 2004), as well as Ramchand's (2008) 'subject of process' as an undergoer.

(4)

a)



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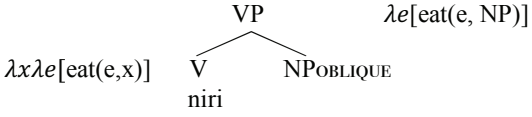
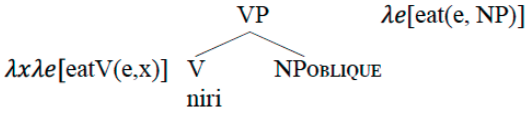


For those verbs which do not appear with an antipassive morpheme, the verb itself introduces an argument within the VP; thus, these verbs do not require an antipassive morpheme to do so.

(5)



In making these arguments, I rely on two proposals about argument structure. First, I borrow Levin's (1999) distinction between core and non-core transitive verbs. Second, I adopt a syntactic approach to argument structure, with arguments possibly introduced by separate heads that contain thematic role predicates. Thus, starting with the tradition developed in Kratzer (1996), I consider that even the internal arguments can be 'severed' from the verb. However, not all transitive verbs have their internal arguments severed. I argue that only those verbs which show an antipassive marker have a 'severed' internal argument, while those that have no marker do not.

The examples in this paper come from published sources from four Eskimo languages, Central Alaskan Yupi'k (Miyaoka 2012), Iñupiaq (Nagai 2006), Inuktitut (Spreng 2012) and West Greenlandic (Fortescue 1994, Bok-Bennema 1991). Iñupiaq, Inuktitut and West Greenlandic are part of the Inuit branch of the Eskimo group, while Central Alaskan Yup'ik (CAY) is from the Yup'ik branch. Both CAY and Iñupiaq are spoken in Alaska, while Inuktitut is mostly spoken in Eastern Canada and West Greenlandic in Greenland. As shown above, these languages have an ergative/absolutive case marking system. In addition, these languages are noted for their polysynthetic morphology, with basically all affixation being suffixal. There is relative freedom of word order (Spreng 2012).

The organization of the paper is as follow. First, I introduce Levin's (1999) distinction between core and non-core transitive verbs, as well as Kratzer's (1996) proposal to 'sever' the external argument. I then introduce more fully the two classes of verb that differ in the presence or absence of an antipassive morpheme. These two classes are known as agentive verbs (those that lack a morpheme in the antipassive frame) and patientive verbs (those that take a morpheme in the antipassive frame). Agentive verbs are two argument verbs which appear in an intransitive frame without any additional morphology and retain the external argument (agent or experiencer), while patientive verbs are those which appear in an intransitive frame without any additional morphology and retain the internal argument (patient or theme). I show that agentive verbs are non-core transitive verbs while patientive verbs are core transitive verbs. Furthermore, in the spirit of Levin (1999), if we treat agentive, or non-core transitive verbs, as verbs which introduce the internal argument themselves, while patientive, or core transitive verbs, as verbs which do not, we can link the presence or absence of the antipassive marker as occurring only with those verbs which do not introduce an internal argument within the VP. For these patientive, core transitive verbs, their internal argument is introduced in a Kratzerian fashion, through an undergoer (UND) thematic role predicate that itself is a relation between an argument and event (*λxλe*[UND(e,x)]). Furthermore, if we then analyze the antipassive morpheme as supplying this thematic role predicate within the VP, we can explain why patientive verbs

require the antipassive morpheme while agentive verbs lack such a morpheme: agentive verbs already introduce an internal argument within the VP and thus the antipassive morpheme is unnecessary, while patientive verbs do not introduce an internal argument within the VP and require the antipassive morpheme to do so.

I next introduce the phenomenon of impersonal verbs and their inability to antipassivize to further support the analysis of the antipassive morpheme given above. I give the same explanation for the lack of an antipassive morpheme with impersonals as I do with agentives: impersonals, like agentives, introduce an internal argument within the VP.

I then discuss two other uses of the antipassive morpheme, as an inchoative and as an applicative. Treating the antipassive morpheme as an argument introducer explains why we see such syncretism between the antipassive, inchoative and applicative. This syncretism is unexplained if we treat antipassivization as a process of intransitivization.

2 Core/Non-Core Transitive Verbs

The formal notion of transitivity considers that a verb with two syntactically projected arguments is transitive. However, not all transitive verbs are alike. Levin (1999) makes a distinction between core and non-core transitive verbs. In characterizing core transitive verbs, Levin (1999) states that "many discussions of transitivity recognize a core—and perhaps for that reason privileged—subset of transitive verbs. These verbs have a clear semantic characterization, fitting the "agent act on and cause an effect on patient' mold that is behind the name 'transitive'." Levin (1999) notes that core transitive verbs (CTVs) in one language will have a translation equivalent in another language that is transitive, but this is not necessarily true for non-core transitive verbs (NCTVs). For Rappaport Hovav and Levin (1998) and much subsequent work, the dichotomy is also related to a distinction between manner verbs, which lexicalize "the manner in which the action denoted by the verb is carried out" and result verbs, "which lexicalize the result of the action denoted by the verb" (100).

In both Levin (1999) and Rappaport Hovav and Levin (1998), this dichotomy is embedded within a theory of event types. Verb meaning is based on their lexicalized event structures, and these event structures have two components. One component defines the possible classes of event types and is termed the 'structural' component; the other, termed the 'core' or 'root', is what each individual verb contributes to the meaning. Classes of verb can be grouped together based on their similar structural component. The main division between event structure templates is between those that are simple and those that are complex events. Complex event structures have two subevent structures, each of which could be its own simple event structure template. Simple event structures have only one such event.

(6) Simple Event Structure Templates

[x ACT$_{<manner>}$]	activity
[x <state>]	state
[BECOME [x <state>]]	achievement

Complex Event Structure Templates

[[x ACT$_{<manner>}$] cause [BECOME [y <state>]]]	causative

The core or root component provides the elements in parentheses; the x and y variables represent the participants in the event. Thus, an activity verb such as 'run' as in the sentence 'Harriet runs' would have the following event structure template, with the idiosyncratic part of the meaning providing the manner component for the verb.

(7) [x ACT$_{<run>}$]

Interestingly, some roots license more participants than that given by the structural component; the activity verb 'sweep' is one such verb, as in the sentence 'Harriet swept the floor'. In this case, the event structure for a two-participant activity verb would be as follows, with the participant licensed by the root component underlined.

(8) [x ACT$_{\text{<sweep>}}$ y]

With a causative verb such as 'break', as with 'Harriet broke the broom', on the other hand, both participants are licensed by the structure component.

(9) [[x ACT$_{\text{<manner>}}$] CAUSE [BECOME [y <BROKEN>]]]

It is this distinction between those transitive verbs that are based on simple event structure templates and whose object participant is licensed by the root component and those that are based on a complex event structures and whose object participant is demanded by the structural component that underlies the core/result and non-core/manner transitive verb distinction. Non-core transitive (manner) verbs have a simple event structure, with their internal argument licensed by the root. Core transitive (result) verbs have a complex event structure with their internal argument licensed by the structure component. This distinction has a number of different morphosyntactic effects. For example, the object of a change of state verb such as 'break' is a structural object and cannot be omitted, while the object of a verb of contact such as 'sweep' is licensed by the root and thus can be omitted.

(10)

a) *Sal is sweeping (the floor).*
b) *Sal is breaking *(the vase).*

In addition, core transitive verbs can undergo the unaccusative alternation while non-core transitive verbs do not.

(11)

a) **The floor swept.*
b) *The vase broke.*

3 The 'Severing' of Arguments

In a well-known paper, Kratzer (1996) considers that the external argument of the verb is special in that its position syntactically and semantically is quite different from that of other arguments. The contrast appears in how the arguments are associated with the verb. In the 'ordered argument' approach, the verb stipulates which argument is the highest. Such an approach can take two forms. In one way, the ordering of arguments is part of both the syntactic structure and the conceptual structure (12a) and the other--the neo-Davidsonian approach--the arguments are associated with the verb via thematic role predicates (12b).

(12)

a) buy: λxλyλe[buy(x,y,e)]
b) buy: λxλyλe[buy(e) & theme(x,e) & agent(y,e)]

Kratzer's idea is that only the internal arguments are associated in the syntax with the ordered argument approach. The external argument, at the level of both syntax and conceptual structure, is associated with the verb in the neo-Davidsonian approach. In this view, the external argument is not an argument of the

verb.[4]

(13) buy: λxλe[buy(x,e)] or λxλe[buy(e) & theme(x, e)]

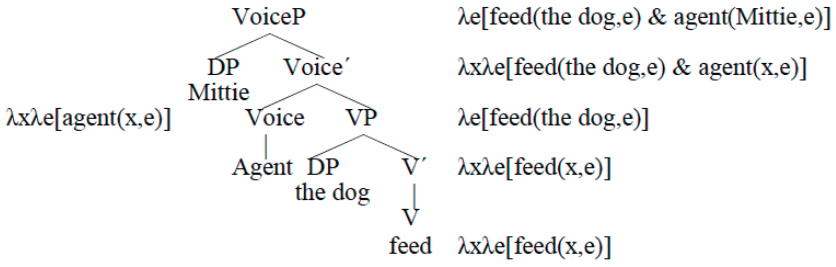
Syntactically, the external argument is introduced by a separate head from the verb, Voice. Semantically, it is introduced into the representation by a thematic role predicate and integrated into the event structure through the process of *event identification*. Kratzer (1996) defines event identification as "one of several admissible conjunction operations" responsible for building up the semantic interpretation of a complex expression. This operation takes the functions f and g and yields the function h as an output.

(14)

f	g	→	h
<e, <s, t>>	<s, t>		<e, <s, t>>
			$\lambda x_e \lambda e_s$ [f(x,e) & g(e)]

The internal arguments are listed as part of the argument structure of the verb; these elements are projected within the VP. A representative derivation given by Kratzer for the VoiceP 'Mittie feed the dog' is as follows. Note that the semantics of Voice combines with the semantics of the VP through the process of Event Identification.[5]

(15)



With this background in place, I now turn to an analysis of the contrast between the presence/absence of an antipassive morpheme in the intransitive frame. My claim is that (i) verbs that require an antipassive morphemes are core transitive verbs, those that do not are non-core transitive verbs and (ii) non-core transitive verbs introduce their internal argument directly, by the verb itself, while core transitive verbs do not. Thus, the internal argument of core transitive verbs has been severed, like the external argument, and is introduced in a separate functional head through a thematic role predicate.

4 Agentive and Patientive Verbs

Before we discuss how the core/non-core transitive verb distinction applies to the antipassive, I need to introduce another bit of terminology. Eskimoists typically divide transitive verbs into two types: agentive and patientive. In the following examples, from Central Alaskan Yup'ik (Miyaoka 2012), we see the transitive verbs *neri* 'eat' and *navaq* 'break'; the former is an agentive verb while the latter is a patientive verb.

4 Kratzer (1996) remains uncommitted as to whether or not the internal argument is associated in the conceptual structure with the neo-Davidsonian approach.

5 In Kratzer's system, the external argument is different than the internal arguments in that it is not part of the argument structure of the verb; however, a number of authors have suggested that all arguments are severed from the verb itself (Borer 2005, 2012; Ramchand 2008; Bowers 2010; Acedo-Matellán and Mateu 2012; Lohndal 2012, 2014; Marantz 2013; Wood and Marantz 2017; and others) An early approach to severing the internal argument is seen in Zeller (1996). Pylkkänen (2008) treats applicative arguments as syntactically introduced.

Both agentive and patientive verbs can occur in a transitive frame with an internal and external argument (16a) and (17a); however, in an intransitive, single argument clause, agentive verbs interpret the sole NP as an agent or experiencer, (16b) while patientive verbs interpret this NP as a theme or patient (17b). Agentive verbs therefore allow the object deletion alternation, while patientive verbs allow the unaccusative alternation.

(16) agentive, Central Alaskan Yup'ik (Miyaoka 2012)

a) *Angute-m* *nega* *ner-aa*.
man-REL.SG fish.ABS.SG eat.IND.3SG.S/3SG.O
'The man is eating the fish.'

b) *Angun* *(neq-mek)* *ner'-uq*.
man.ABS.SG fish-ABM.SG eat-IND.3SG
'The man is eating (a fish).'

(17) patientive, Central Alaskan Yup'ik (Miyaoka 2012)

a) *Angute-m* *sass'aq* *navg-aa*.
man-REL.SG watch.ABS.SG break.IND.3SG.S/3SG.O
'The man broke the watch.'

b) *Sass'aq* *naveg-tuq*.
watch.ABS.SG break.IND.3SG
'The watch broke.'

c) *Angun* *sass'a-mek* *navg-i-uq*.
man.ABS.SG watch.ABM.SG broke-AP-IND.3SG
'The man broke a watch.'

In addition, it is possible to have an oblique NP in the intransitive frame with an agentive verb (16b). This oblique NP has the same thematic relation as the absolutive internal argument in the transitive frame. In this case, we have the 'null' antipassive. Therefore, agentive verbs are those verbs which lack an antipassive morpheme. Patientive verbs also can appear in an intransitive frame in which the external argument is absolutive and the internal argument is an oblique marked NP; in this case, we have special morphology on the verb (17c). Patientive verbs are thus those verbs which require an antipassive morpheme.

Now already we see that the class of agentive verbs have the properties that Levin (1999) and Rappaport Hovav and Levin (1998) associate with non-core transitive verbs: like NCT verbs, agentive verbs allow 'object deletion'. And similarly, patientive verbs have properties that they associate with core transitive verbs, in that they allow the unaccusative alternation. I summarize this discussion in the following chart.

(18)

Verb	Agentive or Patientive	Object deletion	Unaccusative	Core/non-core transitive	AP morphology
nere 'eat'	agentive	yes	no	non-core	unmarked
navg 'break'	patientive	no	yes	core	marked

The question remains of why the antipassive affix is required with patientive verbs but not agentive verbs.

Furthermore, if we look through the literature with respect to these two classes, we see that externally caused, change of state verbs are overwhelmingly patientive and appear with morphology in the antipassive.

The class of agentive verbs does not consist of change of state verbs and matches up with the class of non-core transitive verbs. I turn now to examples of agentive and patientive verbs from two languages, Iñupiaq and Central Alaskan Yup'ik and show how they split also along the core and non-core transitive verb line.

4.1 Iñupiaq

Perhaps the most illuminating study for our purposes is that of Nagai (2006). In his investigation of Iñupiaq, another language of the Eskimo-Aleut group, he also shows a split between core and non-core transitive verbs with respect to the 'null' antipassive and the distinction between agentive and patientive verbs. In his excellent discussion of agentive and patientive verbs in Iñupiaq, Nagai (2006) looks at various semantic subgroups of agentive and patientive verbs. Not surprisingly, patientive verbs denote a change of state, which would classify them as core transitive (result) verbs. In addition, those verbs which focus on the final phase of the event, which is the result, are also patientive. Verbs that do not describe a change of state, focus on the agent's process or have an agent-oriented component of meaning are agentive verbs. These verbs are similar to Rappaport Hovav and Levin (1998)'s characterization of manner verbs.

Here are some examples of patientive, most of which denote a change of state in (19) and some agentive verbs in (20).

(19) *aŋmaq-* 'open', *imu-* 'fold', *isivit-* 'unfold', *kipit-* 'stain', *makpîq-* 'open (book)', *mulik-* 'close, put board on (window/door)', *nalġuq-* 'straighten', *pituiq-* 'let loose', pituk 'tie', *puvîq-* 'inflate', *puyat-* 'dirty', *tasrît-* 'stretch', *piġït-* 'bend', *sipït-* 'fold (corner of basket), *qipït-* 'twist (rope), *talu-* 'open (door)', *umïk-* 'close, lock', *uuyu-* 'lengthen', *avik-* 'cut (food) in two', *ipiġaq* 'chop' *naviq-* 'break long object', *ulîq-* 'crack (of glass)', *alïk-* 'tear', *qaaq-* 'bust', *uukkaaq-* 'break', *kuvî* 'spill', *iñiqtïq-* 'forbid', *kiuma-* 'talk back to', *nanġaq-* 'praise', *iñiq-* 'finish making artifact', *auksîq-* 'thaw out', *kiniqusrîq-* 'thicken', *niglaqsîq-* 'cool'

Agentive verbs include verbs of contact and surface contact, verbs of food preparation, verbs of ingesting, verbs of body care, verbs of perception, verbs of verbal and mental activity, verbs of acquiring food, and other classes.

(20) *aluk-* 'lick' aktuq- 'touch', *kasrak-* 'beat (drum), ring (bell)', *kauk-* 'hammer (nail)'; *kunik-* 'kiss'; *savit-* "pat (dog)', *allaqtïq-* 'wipe', *miŋuɬiq-* 'paint', *qitchuk-* 'scratch', *argîq* 'roast', *iyamaaqɬuk-* 'boil half dry', *saqaniqtaq-* 'fry', *tinik-* 'knead', *iġġuq-* 'bathe', *iḷḷiaq-* 'comb X's hair', *sali-* 'cut X's hair, *umŋiyak-* 'shave', *imïq-* 'drink', *maŋîk-* 'gnaw', *miluk-* 'suck' *niġî-*, 'eat', *sikaaq-* 'smoke', *tamuq-* 'chew', qiñiq- 'see', tusraa- 'hear', *nai-* 'smell', *aviu-* 'shout to', *isivruk-* 'whisper to', *uqqaaġîk-* 'talk to', *agliqï-* 'read', *itqaq-* 'remember', *puuyuq-* 'forget', *kaŋiqsî-* 'understand', *kuvraq-* 'catch (fish) with a net', *aŋuniaq-* 'hunt', *inuq-* 'shoot but miss'

He also compares the agentive/patientive verb distinction in Iñupiaq with similar verbs in Central Alaskan Yup'ik, Japanese and English and finds that the overlap between them is much greater than expected by chance, even for Japanese and English which are not of the same family as Iñupiaq, in contrast to Central Alaskan Yup'ik.

Most interestingly, he compares two near synonyms: the verb *aŋula-* 'wet to tan', which is agentive and *imaq-* 'wet to tan' which is patientive (215). Here is how Nagai (2006:215) describes the difference between the two verbs. With respect to the agentive *aŋula-*

> [t]he focus, however, is not on the patient's changing state from not being wet to being wet, but on the agent's process of wetting the patient. Thus, even though it implies the agent's changing the state of the patient, the focus is not on the patient's change of state, but on the process of the agent's being engaged in the activity of wetting the patient. On the other hand, imaq- "wet to tan" focuses on the patient's changing state from not being wet to being wet.

This discussion of the difference between these two verbs recalls the manner/result distinction, in

which the agentive verb focuses on what the agent does in carrying out the process (manner), while the patientive focuses on the result of the process.

4.2 Central Alaskan Yup'ik

Miyaoka (2012) writes that 'agentive transitive stems chiefly describe the process itself (rather than the result) of the agent's action upon a patient, whereas patientive transitive stems tend to focus on result…"(901). Later on, he states that "bivalent stems are, generally speaking, verbs that cause a change in state or nature. They denote events focusing on the result and its continuous state (rather than the process itself) caused by the agent's action or on the change caused in the condition/quality of the P argument." (908-909).

He also gives a list of agentive and patientive verbs for Central Alaskan Yupik. I give a representative sample here.

(21) Agentive Stems
|*uɬaɣ*-| 'to approach, go up to' |*maliɣc*-| 'to go with, follow', |*upc*-| 'to get ready to go', |*utaqa*-| 'to wait for'
|amaɣ̇-| 'to carry (on back)' |*aŋaqi*-| 'to take along' |*tɨɣlɣ*-| 'to steal' |*kɨpuc*-| 'to buy'
|*pai*-| 'to say behind' |*tuc*-| 'to sleep next to'
|*ciŋɨ*-| 'to push' |*akuqaɣ̇*-| 'to catch, grab' |*yaɣc*-| 'to stretch arms, fight',
|*kaɣi*-| 'to sweep' |*suuɣi*-| 'to scrub', |*miŋuɣ*-| 'to paint, spread'|*ɨlaɣ*-| 'to dig'
|*ɨɣa*-| 'to cook', |*s/cɨɣ*-| 'to cut open (abdominal cavity of fish) (vs. patientive |*uɬiɣc*-| 'to cut fish for drying')
|*ukli*-| 'to dice/cut up (fish/bread') |*ɨɣ̇taɣ̇*-| 'to pluck (fowl)" |*nutɣ*-| 'to shoot' |*qalu*-| 'to dipnet' |*aŋu*-| 'to catch after chasing', |*iqvaɣ̇*-| 'to pick berries'
|*miŋqi*-| 'to sew',|*qilaɣ*-| 'to knit, weave', |*caki*-| to cut (out, e.g. wood)', |*kɨliɣ*-| 'to scrape'
|*ac*-| 'to put on' |*ɨɣ̇miɣ*-| 'to wash (face)' |*qulic*-| 'to wash (hair)'
|*iɣi*-| 'to swallow' |*ɨmɣ̇*-| 'to drink'

(22) Patientive
|*aqfa*-| 'to fetch', |*nuqc*-| 'to pull', |*amu*-| 'to pull out, extract', |*kuvɨ*-| 'to spill', |*ɨlc*-| 'to deflate'|*naluɣ*-| 'to lift', |*pɨtuɣ*-| 'to tie, fasten (thing)', |*kataɣ*-| to fall out/off', |*imɣ*-| 'to roll up', |*aɣtuɣ̇*-| to tough', |*kumaɣ*-| 'to turn on, ignite', |*capi*-| 'to block from view', |*tamaɣ̇*-| ', to lose', |*umɣ*-| 'to close, shut', |*patu*-| 'to cover' |*kɨlucaɣ̇*-|. to lock', |*aɬɣ*-| 'to tear', |*azɨmc*-| 'to break (stick-like long object), |*navɣ*-| 'to break (dish, heart, etc), |*putu*-| 'to pierce, get through', |*tumaɣ̇c*-| to fix, repair, assemble,|*qɨmɣ̇ɣ̇*-| 'to squeeze, mash', |*akuc*-| 'to mix (agentive also?)', |*kapi*-| 'to stab, poke in',|*caluɣc*-| 'to tan (skin) by scraping', |*ɨɣ̇uɣ̇*-| 'to wash (body, thing)', |*caẋiɣ̇*-| 'to clean (thing)', |*kinɣ̇*-| 'to dry', |*mɨciɣ̇*-| 'to wet, soak', |*akŋiɣ̇*-| 'to hurt', |*ɨkayuɣ̇*-| 'to help', |*ɨkayuɣ̇*-| 'to teach', |*naaqi*-| 'to count, read', |*naŋi*-| 'to finish', |*quyuɣ̇*-| 'to gather, collect'

As we can see, externally caused core transitive (result) verbs that give a change of state, such as 'break' and 'close', require antipassive morphology but non-core transitive (manner) verbs such 'eat', 'sweep' and 'see' do not.

4.3 Analysis

Above I have shown the patientive verbs are core transitive verbs; they describe an event in which an agent acts on a patient and the patient undergoes a change of state. Agentive verbs are non-core transitive verbs. Recall also the patientive verbs require an antipassive morpheme in the while agentive verbs do not. Thus, we need to explain why core transitive verbs are associated with overt morphology in the antipassive while non-core transitive verbs do not.

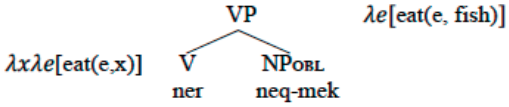
Now Levin (1999) considers that the direct object of non-core transitive verbs is licensed by the root while the direct object of a core transitive verb is a licensed by the event structure. To capture this insight

within a framework that verbs do not necessarily introduce their arguments, suppose that core transitive verbs have their internal arguments 'severed' and introduced by a separate head, while non-core transitive verbs can introduce their argument. In this case, we make the following distinction in verbal roots. The core transitive verbal roots are predicates of events only, while non-core transitive verbs are a relation between an eventuality and an entity.

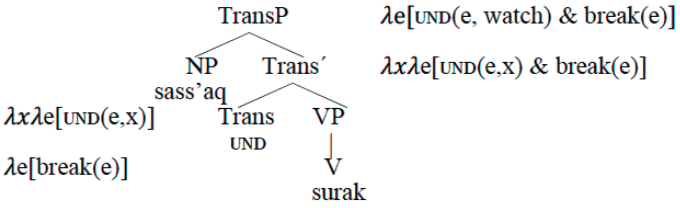
(23) CTV or patientive verb: λe[V(e)]
NCTV or agentive verb: λeλx[V(e,x)]

Thus, the internal argument of a non-core transitive verb can immediately saturate the argument position of the verb upon first merge with the verb. Not so for the core transitive verb; its argument would be introduced by a separate head. Here, parallel to Kratzer (1996) for the external argument, there is a separate head that introduces the internal argument and that takes the VP as its complement (see also Zeller 1996). Also, as with the external argument, this head contains a thematic role predicate. Here, I consider that this head contains the 'undergoer' thematic role predicate, which is integrated into the semantic representation through Event Identification, just like the external argument.

(24) NCTV

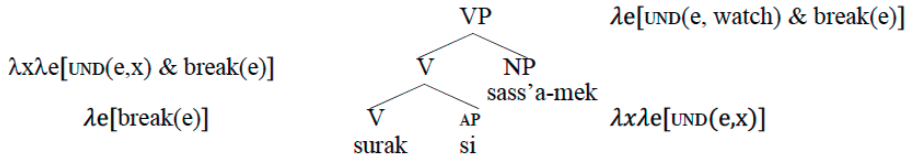


(25) CTV



Since the NCTV can undergo first merge with its argument, this NP is within the VP. Not so for the CTV; its argument is introduced outside of VP by a separate head and not introduced by the verb itself. But if a CTV does not introduce its argument, we can now connect the appearance of antipassive morphology to the introduction of the internal argument within the VP. The reason why a CTV needs an antipassive affix is that this affix allows the internal argument to be introduced within the VP; the antipassive affix itself brings along the undergoer thematic role predicate, as Trans does, but it adjoins to the verb, allowing the internal argument to be introduced within VP.

(26) CTV+antipassive



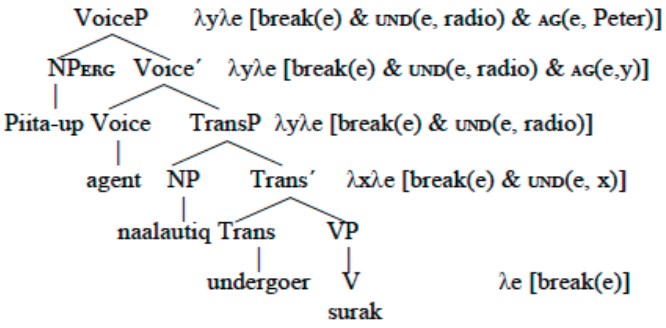
Before moving on, note that with the NCTV, the internal argument is not added through a separate thematic role predicate. In the representations here, the thematic role of the internal argument of a NCTV is assigned by the verb; the verb has its hands on the internal argument, so to speak, in a way that the CTV does not. Thus, we do not necessarily expect the argument introduced by a NCTV to have a undergoer thematic role; as Levin (1999) notes, the direct objects of NCTVs typically have a range of thematic roles. However, even though there is no undergoer predicate, it is still possible for the internal argument to have an undergoer role, but it is given by the verb itself, and not mediated through an undergoer predicate added by a separate

head. On the contrary, patientive verbs have their internal argument introduced syntactically by a Trans head that contains an undergoer predicate, so the thematic role of their internal argument will be more uniform.[6]

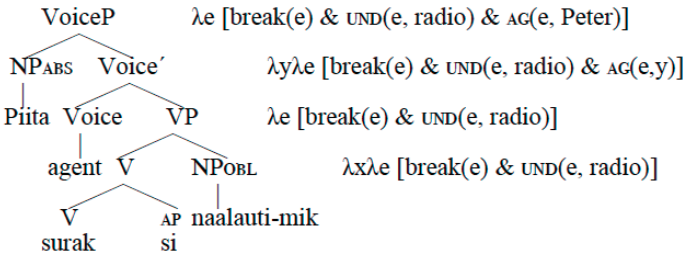
Thus, treating the antipassive morpheme as an argument introducer, rather than an argument saturator or demoter, explains nicely the contrast between those verbs which require an antipassive morpheme and those verbs which do not. This difference is based on an independently motivated contrast between the argument structure of CT and NCT verbs. I consider that agentive verbs in Eskimo-Aleut constitute a class of NCT (manner) verbs, while patientive verbs are CT verbs which involve an externally caused change of state.

For completeness, I also show a complete representation of a transitive and antipassive clause with the external argument present in VoiceP.

(27) Transitive



(28) Antipassive



For case assignment, in the ergative, I follow other researchers (Aldridge 2004, 2008; Legate 2008; Polinksky 2016) and consider that ergative case is assigned by a transitive Voice head, with absolutive case assigned by Tense. In the antipassive, the intransitive Voice head does not assign case, so the external argument in its specifier is assigned case by T. The oblique noun phrase is assigned case by the antipassive morpheme itself (Bok Bennema 1991) or, in the case of agentive verbs, by the verb itself.

4.4 Transitive agentive verbs

Agentive verbs can also appear in an ergative frame. We might at first claim that the internal argument is introduced by Trans and assimilate the syntax of these transitive forms to that of core transitive verbs. If this were true, though, we would need multiple lexical specifications for these verbs. That is, we would

6 A reviewer asks what requires TransP to appear in these representations, since absent antipassive morphology, the internal argument must be present. Here, I consider that the lexical-conceptual structure of the verb forces the undergoer to be present, since the meanings of these verbs focus on the change of state aspect of the verb's meaning. With a change of state, there must be some element that undergoes a change of state, and this element is introduced by Trans.

have one verb that introduces an argument, giving the 'null antipassive', and one verb that does not, giving the transitive, for each agentive verb. This is undesirable, since it would require two forms in the lexicon of every agentive verb.

Instead, I argue that there is a TransP present, but it contains no thematic role predicate; the argument which appears in VP moves to the specifier of Trans. In this position, it can receive an absolutive case.

(29) [$_{\text{VoiveP}}$ NPERG [$_{\text{Voice}'}$ Voice [[$_{\text{TransP}}$ NPABS [$_{\text{Trans}'}$ Trans [$_{\text{VP}}$ V ~~NP~~]]]]]]]

I give in the next section an argument for the presence of a TransP above VP, even when no thematic role predicate occupies the Trans head, as well as further support that the antipassive morpheme adds an argument.

4.5 Summary and Comparison to other proposals

In this section, I have argued that the agentive/patientive dichotomy mirrors the non-core transitive/core transitive verb dichotomy introduced by Levin (1999). Agentive verbs introduce an argument within the VP, while patientive verbs do not; they introduce their internal argument either through a functional projection outside of VP or by an antipassive morpheme that allows the internal argument to be introduced within VP. Agentive verbs do not appear with special morphology in the intransitive antipassive frame because they already introduce an argument within the VP; consequently, they do not need special morphology to do so. In the transitive frame, the internal argument introduced by the agentive verb moves outside of VP, where it is assigned absolutive case. I summarize the discussion so far in the following chart.

(30)

Verb	Agentive or Patientive	Object deletion	Unaccusative	AP morphology	CTV or NCTV	Process/Result	Internal argument Introducer
nere- 'eat'	agentive	yes	no	unmarked	NCTV	process	yes
navg- 'break'	patientive	no	yes	marked	CTV	result / change of state	no

This conception of the antipassive morpheme as an argument introducer is radically different from the standard treatment of the antipassive morpheme as intransitivizer, taking a two-place predicate and turning it into a one place predicate. One problem for the standard idea of the antipassive morpheme as an intransitivizer is the appearance of the oblique noun phrase. If the antipassive verb is semantically intransitive, with only a single argument, we would not expect any argument to appear with the antipassive verb. One way around this problem is to consider that the oblique noun phrase is some sort of adjunct. However, given that the oblique noun phrase has the same thematic relation to the verb as the its absolutive argument counterpart in the transitive frame, it is unclear how we account for this similarity if only the absolutive is selected for by the verb.

Furthermore, in the standard analysis, there is no account for the lack of an antipassive on agentive verbs, since there is no element to intransitivize the verb. These cases are assimilated to the patientive ones by considering that with agentive verbs, there is a null antipassive morpheme which performs the required intransitivization function. But even with a postulated null morpheme, we still do not explain why patientive verbs, which are essentially change of state, result verbs, are the only ones which require such a morpheme. In the analysis proposed in this paper, the presence of such a morpheme indicates that the verb does not introduce its internal argument; borrowing from Levin's (1999) analysis of core and non-core transitive verbs and adapting it to the framework here, patientive verbs are core transitive verbs and do not introduce an argument, while agentive verbs are non-core transitive verbs and do introduce an argument. The presence/absence of the antipassive morpheme is thus explained as a result of the argument structure differences of these verbs.

More recently, Spreng (2012) also eschews a null antipassive morpheme in the agentive cases. However, Spreng (2012) treats the agentive/patientive verb distinction as rooted not in an argument structure difference but in a lexical aspect distinction. Those verbs which require *-si* in the antipassive are punctual, while those that do not are durative. Her main focus in the aspectual contrast between transitive and antipassive verbs. In the transitive, the verb has a perfective interpretation, but in the antipassive, the verb has an imperfective interpretation. This example, from Spreng (2012:13), is from Mittimatalik.

(31) a. *Anguti-up* *arnaq* *kunik-ta*.
man-ERG woman.ABS kiss-PART.3SG.S/3SG.O
The man kissed the woman.

b. *Anguti* *kunik-si-vuq* *(arna-mik)*.
man.ABS kiss-AP-IND.3SG (woman-MIK)
'The man is kissing (a woman)/someone.'

In the transitive case, the roots of punctual verbs must first combine with a PunctP phrase before merging with their internal argument. Then, the PunctP phrase merges with a v head that introduces the external argument. The roots of durative verbs, on the other hand, merge with a categorizing verbal head before (optionally) merging with their internal argument. Then, the *v* head that introduces the external argument is added. The internal arguments of durative verbs can check case with the verb itself, resulting in an oblique case.

(32) a. $[_{vP}\ DP_{ext.arg}\ [_{v'}\ v[\text{EVENT}]\ [_{PunctP}\ DP_{int.arg}\ [_{Punct'}\ [\text{PUNCTUAL}]\ \sqrt{}\text{root}\ ]]]]$

b. $[_{vP}\ DP_{ext.arg}\ [_{v'}\ v[\text{EVENT}]\ [_{VP}\ DP_{int.arg}\ [_{v'}\ V\ \sqrt{}\text{root}\ ]]]]$

In the antipassive, punctual verbs can merge with a little v headed by *-si*. This little v carries an [interval] feature that checks case on the internal argument in the specifier of PunctP. In this case, the internal argument has oblique case. Furthermore, the presence of the [interval] results in an imperfective reading. With durative verbs, since they are default imperfective, there is no need for a v with an [interval] feature. Thus, these verbs appear as 'null' antipassives.

(33) $[_{vP}\ DP_{ext.arg}\ [_{v'}\ si[\text{EVENT}]\text{-}[\text{INTERVAL}]\ [_{PunctP}\ DP_{int.arg}\ [_{Punct'}\ [\text{PUNCTUAL}]\ \sqrt{}\text{root}\ ]]]]]$

Note that in both the analysis presented here and in Spreng's analysis, internal arguments are merged in different positions. For null antipassive verbs, the internal argument is within VP and is assigned an inherent case by the verb. For verbs which require an antipassive morpheme, the internal argument is merged within a functional projection. But that is where the similarities end. In the analysis given in this paper, the internal arguments of patientive verbs are introduced through a separate thematic role predicate, while those of agentive verbs are introduced by the verb. For Spreng, even with patientive (for her, punctual) verbs, there is no separate thematic role predicate to introduce those verbs. Furthermore, the antipassive morpheme is not associated with the introduction of the internal argument but associated with the light verb head that introduces the external argument, giving an imperfective interpretation to the clause.

It is hard to compare the proposal here in this work, since agentive verbs are usually activity verbs or accomplishment verbs which are durative, and patientive verbs as change of state verbs can be punctual. However, recall the discussion of the two near synonyms in Iñupiaq, the agentive *aŋula-* and the patientive *imaq*, which both mean 'wet to tan'. The agentive verb focuses on the agent's process in the event, while the patientive verb focuses on the change of state. Both verbs conceptualize the same event, but different aspect of it, with the agentive associated with the 'manner' while the patientive is associated with the 'result'. The core/non- core transitive verb distinction captures this difference better than a lexical aspectual distinction.

Also, note that the antipassive morpheme is located in the head of the light *v* which introduces the external argument, but Spreng (2012) also considers that the overt causative morphology is located in the same head, as in the following. However, it is possible to get both overt causative morphology and an antipassive morpheme in the same clause, as in the following from Mittimatalik (Spreng 2012: 39).

(34) Tuqu-t-si-vuq.
die-CAUS-AP- IND.3SG
'He is killing something.'

We would not expect both morphemes to appear if they occupy the same head.

In the next section, I give another argument for the lack of an antipassive morpheme when the verb itself introduces the internal argument. This phenomenon further reinforces the idea that it is the notion of core transitivity that determines the presence or absence of an antipassive affix.

5 No Antipassive with Impersonals

In Central Alaskan Yup'ik, and Iñupiaq and other languages of the family, there is an impersonal construction in which the clause has a single absolutive argument, yet transitive agreement on the verb rather than the expected intransitive agreement. This subject agreement is always third person singular. Examples of these impersonal verbs, along with their expected intransitively inflected counterparts, are shown below, from both Central Alaskan Yup'ik (Miyaoka 2012) and Iñupiaq (Nagai 2006).[7]

(35) Central Alaskan Yup'ik

a) Transitive (Impersonal)
Nanvaq *ciku-a*.
lake.ABS.SG freeze-IND.3SGS/3SG.O
'I_{tIMP} froze the lake, i.e. the lake is (now) frozen.'

b) Intransitive
Nanvaq ciku-uq.
lake.ABS.SG freeze-IND.3SG
'The lake is still freezing.'

(36) Iñupiaq

a. Transitive (Impersonal)
nuna *qiqit-kaa*.
nuna.ABS freeze-IND.3SG.3SG
'The land froze.'

b. Intransitive
nuna *qiqit-tuq*.
nuna.ABS freeze-IND.3SG
'The land froze.'

Miyaoka (2011, 2012) gives the following list of impersonal verbs: verbs of freezing, heating and burning;

7 Jacobson (1979) shows that such impersonals are also present in Central Siberian Yupik, and he states that "[a] verb dealing with natural phenomena may often be used with a transitive ending where the subject must be regarded as 'natural forces'. This subject in such a construction is not specified by a separate noun"(85). He also gives the following as an example.
(i) Sikaa meghem qaaynga. "It froze the surface of the water."

change of body part and change in condition, shape or position. I give some examples below.

(37) *freezing/heating/burning*, etc.: |*ayu*-| 'to spread (of fire)', |*ciku*-| 'to ice/freeze', |*ɨla*-| 'to weather, tan (of skin)'. |*ɨki*-| 'to burn', be on fire' |*nipɨ*-| 'to go off, extinguish (of fire, heat, sound, light) |*qamɨ*-| (fire) to die down)', |*uẏuɣ*| 'to melt, thaw', |*uu*-| 'to cook'

(38) *change in body parts*: |*cii*-| 'to get chapped', |*mamɨ*| 'to heal, close in', |*mɨcuɣ*-|, '(wound) to get blood poisoning', |*mɨqɨ*-| 'to shed hair, fur', |*pupiɣ*-| 'to get infected sores'

(39) *change in condition, shape or position* |*aẏu*-| 'to ripen, rot', |*ɨqa*-| 'to get dirty', |*makɨ*-| to ooze, to flow out', |*pɨkɨ*-| 'to move, stir', |*puvɨ*-| 'to swell', */(k)ɨnc*-| 'to recede, ebb', |*qacu*-| 'to loosen, wrinkle, less taut', |*qałẏ*-| 'to get rusty', |*ukɨ*-| 'to get a hole', |*ulɨ*-| 'to flood'

With these verbs, there cannot be an overt causer or agent argument. Miyaoka (2012) writes "a considerable number of patientive bivalent stems are impersonal in that the A argument is an impersonal item like a natural or supernatural force or process. As an involuntary, uncontrollable, or invisible agent, the argument *is never expressed externally*...and no outside force is felt" (919). Of the following sentences (40a), containing an impersonal verb *ayag* 'go away', Miyaoka writes "as an impersonal verb, a personal A argument NP like **anuqe-m* (REL.SG) 'the wind' cannot be added" (893). Similarly, for the verb *akag* 'roll' in (40b), he writes "the transitive verb *akag-aa* cannot take a personal A argument like *angute-m* (intending 'the man rolled the ball')..."(893).

(40)

a) ?*Tang, qayaq ayag-aa ava=i/ava-vet*.
ATN kayak.ABS.SG. go.away-IND.3SG.3SG. there=INJ/there-ALL
'Look, the kayak has drifted away (*it* has drifted the kayak) over there!'

b) Akag-aa angqa-a.
roll-IND.3SG.3SG. ball-ABS.3SG.S/3SG.O
'His ball is rolling (*it* rolls his ball.)'

Importantly for this work, Miyaoka (2012) states "an impersonal patientive verb cannot be antipassive..."(921). Consider the following:

(41)

a) *Maq-aa*.
flow.out-IND.3SG.S/3SG.O
'It is oozing out.'

b) *Maq'-uq*.
flow.out.IND.3SG
'It is oozing out.'

c) **maq-i-uq*.
flow.out-AP. IND.3SG

(42)

a) *Nip-aa. kaminiaq*.
extinguish.IND.3SG.S/3SG.O stove.ABS.SG
'The stove went out.'

b) *Nip'-uq* *kaminiaq*.
extinguish.IND.3SG stove.ABS.SG
'The stove went out.'

c) **Nip-i-uq*.
extinguish-AP. IND.3SG

Miyaoka (2012) does not give an explanation for why these antipassive forms are not allowed.

5.1 Analysis

In the transitive case, it is reasonable to assume that there is a null 'dummy subject' which is responsible for the transitive agreement, along with the overt absolutive NP. Note that we see the same kind of agreement with weather verbs in which there is no argument NP and a locative; these weather verbs have a dummy subject in other languages.

(43) *Kiag-tuq* *Mamteriller-ni*.
summer-IND.3SG pl.n-LOC.PL
'It has become summer in Bethel.'

Other meterological and temporal change (season and day/night) verbs which behave similarly include |*iɣc*-| 'to become morning', |*unuɣ*-| 'to become night', |*anuq-liɣ*-| 'to be windy', |*ivz-iɣ*-| 'to rain, drizzle', |*ɬaic-iɣ*-| 'to be foggy', |*kaɬ-iɣ*-| 'to thunder' |*tuŋy-iɣ*-| '(tide) coming in', |*kiiɣ*-| (air, weather) to be hot. Note, too, that these are intransitive verbs with dummy subjects; thus, it is unlikely that the lack of an antipassive with these verbs is the result of an EPP violation, since it is possible for such dummy subject to appear in intransitive clauses.

If there is a null expletive here, we can apply the 'low merger' analysis of expletives given in Alexiadou and Schäfer (2010). In their analysis of the English expletive, unaccusative verbs of change of state are contrasted to those of change of location, existence/appearance and creation in that the former do not allow an expletive while the latter do.

(44)
a) **There broke a window*.
b) *There arrived a team of linguists*.

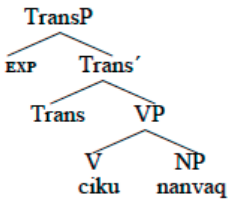
In their analysis, the theme argument of change of state verbs appears external to a result phrase within the specifier of VP, while that of the second class of verbs appears within the result phrase and can stay there. The expletive appears in the specifier of VP. Thus, the expletive and theme of a change of state verb occupy the same position and cannot both co-occur.

(45) change of state $[_{VP}\ NP_{theme}/*there\ [_{ResultP}\ ]]$
change of location/existence/appearance $[_{VP}\ there\ [_{ResultP}\ NP_{theme}]]$

Adapting this 'low merger' analysis of the expletive to the framework adopted here, we can consider that the expletive appears within a Trans projection atop VP. The single NP argument, then, would be introduced not outside the VP, since this slot is taken up by the expletive, but within the VP by the verb itself. If this argument is within VP, then this argument must be introduced by the verb.[8]

8 The expletive does not check case features. Thus, T can probe across the expletive and check the case features of the noun phrase within the VP.

(46) ciku: λxλe[freeze(e,x)]



If the verb itself introduces its argument, then we also have an explanation for why these verbs also do not antipassivize. If the antipassive affix also introduces an argument within the VP, then this affix would not be required if the verb already does so. This reasoning is the same as that which explains why agentive verbs do not appear with an antipassive morpheme.

An objection to this analysis concerns the types of verb that appear in these impersonal constructions; they appear to be change of state verbs, and such verbs, as mentioned above, are not possible with a low expletive 'there'.

However, recall that verbs of existence/appearance are the types can appear in a 'there' construction. I argue here that these verbs in Central Alaskan Yup'ik are used mainly as expressions of 'existence' or 'appearance'.[9] Miyaoka (2012) writes that some speakers feel that the transitive has a mirative implication of the speaker "noticing or encountering...something that is unseen or unnoticed by the hearer. (here it is, look at!). This leads to frequent cooccurence of attention calling particles like *atam* ..."(890). This 'attention-calling' mirative aspect can be understood as a sentence with an 'all new' thetic information structure, asserting the existence of some surprising entity or event, as in the following:

(47)

a) *Tang* *ava=i* *tengmiaq* *teng-aa* .
ATN there-INJ bird.ABS.SG fly-IND.3SG.S/3SG.O
'Look over there, the bird is flying!'

b) *Iqtu-a* *kuik* *atam.*
wide-IND.3SG.S/3SG.O river.ABS.SG ATN
'Hey, the river is (has become) wide, lit. *it* has widened it [unnoticed by the hearer])!'

c) ?*Tang,* *qayaq* *ayag-aa* *ava=i/ava-vet.*
ATN kayak.ABS.SG go.away-IND.3SG.S/3SG.O there=INJ/there-ALL
'Look, the kayak has drifted away (*it* has drifted the kayak) over there!'

Others have commented on the relationship between 'thetic' (all-new utterances, such as existentials) and mirative marking, noting that both may be marked similarly (Garcia Macias 2016).[10]

Further confirmation of this analysis comes from those cases where we add the causative or agent adding morpheme |+*c*+| to these verbs which occur in the impersonal construction. In this case, we allow for the overt expression of a causer or agent, as seen in example (49).

9 Levin and Rappaport-Hovav (1995) note that some change of state verbs, especially internally caused ones such as 'burn' and 'grow' can be used as verbs of appearance or existence.

10 Jacobson (1979) shows that such impersonals are also present in Central Siberian Yupik, and he states that "[a] verb dealing with natural phenomena may often be used with a transitive ending where the subject must be regarded as 'natural forces'. This subject in such a construction is not specified by a separate noun"(85). He also gives the following as an example.
(i) Sikaa meghem qaaynga. "It froze the surface of the water."

(48)

a) *Tang* *ava=i* *tengmiaq* *teng'-uq*. INTRANSITIVE
ATN there-INJ bird.ABS.SG fly-IND.3SG
'Look over there, the bird is flying!'

b) Tang ava=i tengmiaq teng-aa. IMPERSONAL
ATN there-INJ bird.ABS.SG fly-IND.3SG.S/3SG.O

(49) *Anuqe-ma* *teng-t-aa* *angyaq/kalikaq* TRANSITIVE
wind-REL fly-A-IND.3SG.S/3SG.O boat/paper.ABS.SG
'The wind blows the boat/paper away.'

We have created an externally caused causative verb; the verb is now patientive. As expected, the complex verb can have an antipassive morpheme, unlike the simplex verb.

(50)

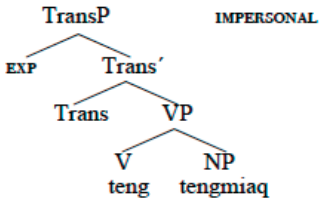
a) *Teng-c-i-uq*.
fly-A-AP-IND.3SG
'He/it blew something away.'

b) **Teng-i-uq*.
fly-AP-IND.3SG

So here, the complex verb requires an external causer; it has causative semantics and is a change of state verb proper. As such, its internal argument must be added through Trans. The ´antipassive morpheme is allowed because the verb does not introduce its argument and the verb itself can occur with an external agent or causer. I give the following structures for the impersonal and causative verbs.

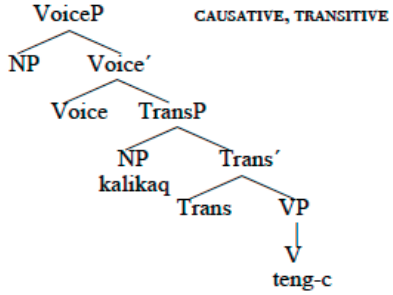
(51)

teng λxλe[fly(e,x)]

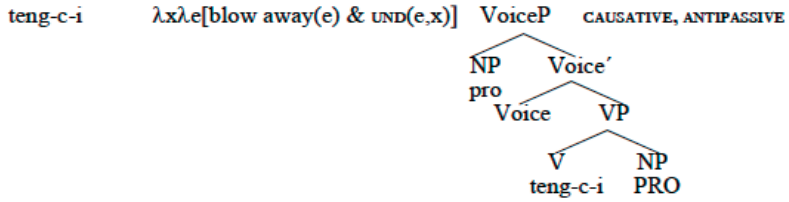


(52)

teng-c λe[blow away(e)]



(53)



There is a further distinction between the *-c* affixed and unaffixed verb. With the simple root, Miyaoka is explicit that the sole NP that appears must be something that can inherently change or move: "P=S argument for impersonal patientives is something that is susceptible to—or has *some inherent capability for—changing or moving*, i.e. animate things, weather, time, etc. It cannot refer to inanimate things." Thus, if the sole argument of the impersonal |*piki*-| can be a noun phrase such as 'bird' but not a noun phrase such as 'house', because the former allows for 'internal causation' of movement, while the latter does not.

(54) *Pek'-aa* *yaqulek*.
stir-IND.3SG.S/3SG.O bird.ABS.SG
'The bird stirred.'

But note that if we add a *-c* morpheme, which adds a cause or agent, we can have the element that undergoes movement be an inanimate noun phrase such as 'paper'.

(55) *Anuqe-ma* *teng-t-aa* *angyaq/kalikaq*.
wind-REL fly-A-IND.3SG.S/3SG.O boat/paper.ABS.SG.
'The wind blows the boat/paper away.'

This difference is easily explained if we consider that the unaffixed verb selects for its argument, but the affixed verb does not. With the affixed verb, a very generic undergoer predicate can introduce the argument; thus, an inanimate 'mover' is allowed. With the unaffixed impersonal verb, because the verb itself selects for its argument, it imposes additional selection criteria, so the range of arguments allowed is narrower.

Before leaving this section, I note that the *-c* morpheme here itself does not introduce the external causer argument; it is still the Voice head that introduces the external argument through a thematic role predicate. Here, we can think of the causative morpheme as a verbalizer, adding causative semantics to the root to create a patientive verb that is a predicate of events. These patientive verbs are the same with respect to argument introduction as other patientive verbs, but their morphology is different; the patientive verbs discussed earlier have a v head that adds causative semantics but is morphologically null, while here the v head is overt. However, in both cases, the arguments of this patientive verb are then added by separate functional heads, one (TransP) giving the undergoer argument and the other (VoiceP) giving the agent or causer.

In this way, these representations differ from other syntactic approaches to argument structure in which each head that introduces an event structure related predicate also introduces an argument associated with that position in the event structure. For example, in Ramchand (2008), the *init*(iation) head introduces the causer argument, which dominates the *proc*(ess) head that introduces the undergoer argument. The *init*(iation) part of the event structure causes the *proc*(ess) part of the event structure, with the syntactic structure mirroring the event structure. In this paper, those aspects of the verbal event structure that are built syntactically are introduced lower in the representation, while the arguments themselves are introduced higher up in the structure by thematic role predicates. Note that if we did consider the *-c* morpheme to be introduced higher up in the structure, dominating that part of the structure which introduces the internal argument, then we would expect the antipassive *-si* morpheme to appear inside of the *-c* morpheme, rather than outside of it.

Finally, note that the possibility for antipassivization depends on the presence of an element of external causation; the antipassivized form depends on the core transitive notion of 'actor does something to the patient with the patient undergoing some change'. Impersonal verbs express an 'internal causation', since the properties of the single argument itself are considered to bring about the change. On the other hand, the causative form expresses 'external causation', since in these cases, the affixation of the agentive or causative morpheme allows for the appearance of an overt external argument NP, and the undergoer noun phrase itself does not need to have some property that causes the change. Thus, it is not the punctual or durative nature of the root that determines the possibility for an antipassive suffix.

6 The antipassive extended: inchoative and applicative

What is interesting is that the antipassive morpheme *-si* in Inutktitut/West Greenlandic can also be used to make an inchoative out of a stative predicate (Bittner and Hale 1996, Bok-Bennema 1991).

(56)

a) *Miiqqat* *piqqip-p-u-t.*
children healthy-IND-[-TR]-3PL
'The children are healthy.'

b) *Miiqqat* *piqqis-**si**-pp-u-t.*
children healthy-AP-IND-[-TR]-3PL
'The children are getting well.'

(57)

a) *Qaqor-si-voq.*
white-AP-IND.3SG
It became white.

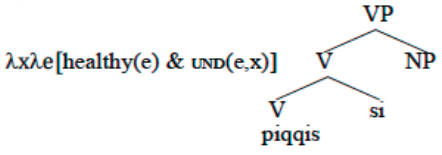
b) *Taar-si-voq.*
dark-AP-IND.3SG
'It became dark.'

Treating the antipassive morpheme as an element that creates a relation between an event and an undergoer thematic role predicate gives an easy characterization of this syncretism. If the function of this element is to introduce an undergoer, then we can say that in its basic form, the verb is an element that involves the holder of a state. The affixation of *-si* changes the verb to one that undergoes a change of state. Merger of the *–si* morpheme with the root involves the root becoming a predicate of events, in which the single argument introduced is the undergoer.

(58) piqqis-si λxλe [healthy(e) & UND(e,x)]

Here, then, there is no difference in the inchoative and the antipassive with respect to the syntax of the VP; both involve a NP complement to the verb and this argument position is introduced by the affix. Semantically, however, there is a difference; the roots underlying the antipassive clause require an agent while those which form inchoative clauses do not. Thus, the inchoative will be a VP only with no v[AG] structure.

(59)



6.1 Malefactive applied arguments and the extension of the antipassive

We can also find the presence of the antipassive affix in a clause with a 'negatively affected' argument. This example is from Jacobson (1995) (also cited in Mithun 2000).

(60) *qimugte-m* *nere-i-a-a* *angun* *akutar-mek*.
dog-ERG eat-MAL-IND.TR-3SG.S/3SG.O man.ABS mixture-ABL
'The dog ate some dried fish on the man (ate the man's fish).'

Note that the *–i* suffix is labeled as the malefactive affix by Mithun (2000), though she also notes that this same affix can be used as an antipassive intransitivizer. This clause has three argunments: the agent, marked with ergative case, the applied malefactive, marked with absolutive case, and the incremental theme object, marked with an oblique case. The verb agrees with the agent and the maleficiary. Thus, though the antipassive morpheme is present, the clause is clearly not intransitive, having both an ergative and absolutive argument and showing 'double' agreement on the verb.

Others have noticed the presence of the antipassive morpheme in these cases of 'malefactives'. What is interesting is that the antipassive morpheme can be added to an intransitive verb in those cases where a 'negatively affected' argument is present. The affected argument can appear in the ergative case. The following examples are from the Chevak dialect of Central Yup'ik from Woodbury (1981) (also cited in Bok-Bennema 1991). Woodbury (1981) states that this mostly occurs with verbs of motion: "the postbase + 'i does not only induce a syntactic rearrangement and give the base the potential to combine with another noun phrase...It also adds meaning, that is, the idea of suffering because something has undergone motion" (334).

(61)

a) *Ing-um* *maklagaq* *kic-i-lq-aa*.
that.one-GEN bearded.seal.ABS sink-AP-PAST-3SG.S/3sg.o
'The bearded seal sank on that guy.'

b. *Ingna* *maklagar-meng* *kic-i-llru-uq*.
that.one.ABS bearded.seal-OBL sink-AP-PAST-3SG.IND
'The bearded seal sank on that guy.'

Woodbury (1981) also gives the verb 'jump' as another example where the addition of the antipassive marker allows an added maleficiary. The transitive *qeckar* 'to jump (over O)' can also appear with the antipassive marker and with intransitive inflection with the affected argument in the absolutive: *qeckariuq* 'it (modalis) jumped away from him (abs)', or with transitive inflection and the affected argument in the relative (ergative) case: *qeckaria* 'it(abs) jumped away from him (rel)'.

Likewise, Fortescue (1984) explains "half-transitiving (s)i has a special detrimental use (highly lexicalized) with transitive inflections where the patient is subject" (269).

(62) *Natiq* *anna-a-vaa*.
ringed-seal.ABS get.away-AP-3SG.S/3SG.O
'*The ringed seal got away from him*.'

(63)

a) *Qajar-taa-va* *asirur-sima-vuq*.
kayak-new-his.ABS break-PERF-INDIC.3SG
'His new kayak has been destroyed.'

b) Taania-p qajar-taa-ni asiru-i-vaa.
Taania-ERG kayak-new-REFL.4SG.ABS break-AP-INDIC.3SG.S/3SG.O
'Taani had his new kayak destroyed (unintentionally).'

As with the transitive case, there is no additional affix that introduces the argument.

Miyaoka (2012) gives both an 'antipassive' and an 'adversative' reading for the verb 'break' in Central Alaskan Yup'ik that appears with the antipassive suffix.

(64) *Angun* *sass'a-mek* *navg-i-uq*.
man.ABS.SG watch-ABM.SG break-AP-IND.3SG
(i) The man broke a watch. (much more common)
(ii) The man had a watch broken. (less common)

Here, in its adversative reading (ii), the applied argument is absolutive and the undergoer argument is oblique. The same case frame also gives the expected antipassive reading (i).

As I noted above, Mithun (2000) glosses this morpheme as malefactive. But both Woodbury (1981) and Fortescue (1984) consider this morpheme to be the antipassive. Thus, we have two possible choices here. We might suppose that this morpheme is the head of an applicative phrase that introduces the maleficiary argument. In this case, it would be homophonous with the antipassive morpheme and thus it could occur in the absence of the antipassive morpheme, making this morpheme a high applicative. Alternatively, we might suppose that this morpheme is the antipassive morpheme and that the maleficiary applicative is null; the presence of the antipassive morpheme is necessary to create the argument position in the verb that the possessee/theme of applicative head identifies with.

There are four reasons why I consider the morpheme itself to be a high applicative morpheme. First, in the transitive example in (60), note that the verb is 'eat', which is a 'null' antipassive verb. As seen above, this verb is agentive and never appears with an antipassive. Thus, if we consider *–i* in this case to be the antipassive, then it is unclear why it appears with 'eat', since this verb does not have an antipassive morpheme in general.

Second, we also see that this morpheme can appear with transitive agreement and with an ergative/absolutive case frame; the applied argument is in ergative case and the undergoer argument in absolutive case. If this *–si* morpheme were the antipassive, we would expect the undergoer argument to be oblique and the applied (malefactive) argument to be in the absolutive, with intransitive inflection on the verb. Now, in Yup'ik, we do see that this structure is possible (example (54b)). But since the transitive frame is also possible, it is unclear how to derive this frame from an antipassivized verb.

Third, Mithun (2000) gives an example where it is the applied malefactive argument that appears in an oblique case rather than the theme argument, as would be expected if this were an antipassive.

(65) *Elag-i-u-q* *avelngar-nek*.
dig-MALEFACTIVE-IND.INTR-3SG mouse-PL.ABL
'He dug to the disadvantage of the mice.'

Finally, Miyaoka (2012) notes in Central Arctic Yup'ik that the adversative use can occur with the antipassive use, in which we see two occurences of the antipassive affix, the first he glosses as the antipassive and the second he glosses as the adversative. However, in this case, he states that the reading is not a malefactive one but a benefactive one.

(66) *Ini-**i-gi**-anga* *neqerrluq-nek*.
hang-ap-adv-IND.3SG.1SG dried.fish-ABM.PL
'She is hanging out dried fish on/for me.'

Here, the first AP morpheme introduces the argument *neqerrluq* 'dried fish' within the VP, assigning it an oblique case, and the second introduces the applied argument 'me'.

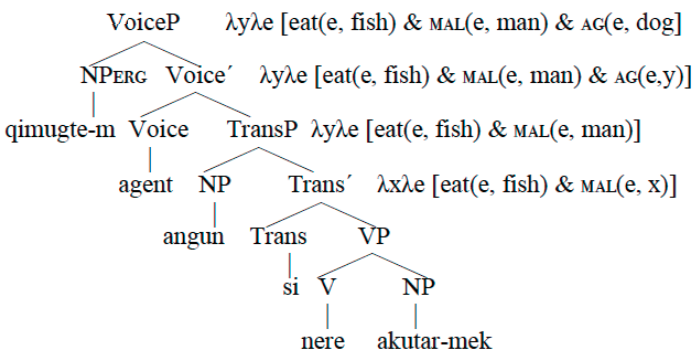
Even though I do not consider this instance to be the antipassive use of *–si*, the framework here provides an explanation for the homophony between this malefactive applicative and the antipassive. Here, the antipassive is an argument introducer, which adds an argument through an undergoer predicate. In the malefactive use, the morpheme remains as an argument introducer, but the content of the thematic role predicate changes from an undergoer predicate to a malefactive predicate.[11]

(67) |ɣi| λxλe[Pred(e,x)] where Pred=UND or MAL

In its applicative use, this antipassive morpheme acts as a 'high' applicative, merging with an entire VP (Pylkkänen 2008). In fact, we can consider that in this 'high' applicative case, the antipassive morpheme is in Trans, rather than the null head that can only contribute an undergoer argument. In this environment, the antipassive morpheme is interpreted as a MAL predicate rather than UND.

Let me go through a derivation for the example in (60). The verb here is agentive, so it introduces an argument position. The internal argument of the verb merges with the verb and is assigned an oblique case by the verb. Next, the Trans head is added, headed by the applicative suffix. This suffix introduces the applied argument through the MAL predicate. Next, Voice is added which introduces the external argument. Since the external argument is assigned case by Voice, Tense can probe beyond this NP and check the absolutive case features of the applied argument in Trans.

(68)



To complete the argument, if the antipassive also has an applicative use, then we should expect that an applicative can be used as an antipassive, given that in this analysis, the antipassive as well as the applicative both introduce arguments. Miyaoka (2012) notes that the |+*(u)c*-| applicative also appears as an antipassive with certain verbs.

11 Fortescue (1984) also gives some examples where it appears the *–uti* affix introduces a malefactive in West Greenlandic.

(i) *alittuut(i)* 'rip his clothes for him.'

He states that in these cases "a human object at whom the detrimental action...is aimed' (91).

For Central Alaskan Yup'ik, Miyaoka (2012) states that with the applicative suffix "semantic contribution of a stem may lead to maleficiary readings, e.g. 'breaking' verbs and meteoverbs" (1082).

(i) *Muri-i-m* *asm-ut-aanga*.
wood-EV-REL.SG break-APP-IND.3SG.1SG
The wood broke on me.

(ii) qani-ut-aanga
snow-APP-IND.3SG.1SG
It is snowing on me.

(69)

a) *Aqva-t-uq* *[qanta-mek* *(unit-a-minek)]*.
fetch-AP-IND.3SG dish-ABM.SG leave.behind-VNRL-ABM.3SG.S/3SG.O
'She is fetching a dish/plate (that she left behind).'

b) *Aqva-t-aa* *qanta-mek* *angun*.
fetch-APPL-3SG.S/3SG.O dish-ABM.SG man.ABS.SG
'She is fetching a dish for the man.'

In (61a), we see the antipassive use of |+*(u)c*+|; here, it appears as *-t* as a result of morphophonological rules. The verb has intransitive morphology and the object is in an oblique case. In (61b), we see the applicative use, adding a benefactive argument, *angun* 'the man' which appears with absolutive case.

In addition, in the Chevak dialect of Yup'ik, Woodbury (1981) also notes that the postbase *–ute*, which adds a benefactive or recipient argument, is used as the 'half transitive' (antipassive) post-base for a number of verbs, including *aqva-* 'to fetch', *ikayur-* 'to help', *nalke-* 'to find' and *tegu-* 'to take'.

Note that if we consider that the antipassive morpheme is an intransitivizer, it is hard to explain why it can also act as an applicative morpheme, and vice versa. But considering the antipassive morpheme to be an argument introducer explains this syncretism nicely.

7 Conclusion

By considering that the antipassive morpheme introduces an argument, we explain a number of interesting phenomena. First, we explain the difference between those verbs which require an antipassive morpheme and those which do not. The former are core transitive (result) verbs that do not introduce an argument, while the latter are non-core (manner) transitive verbs that do. Second, we explain why the antipassive is associated with the inchoative as well as the applicative. In all of these cases, the morpheme introduces an argument. Finally, we explain why transitive impersonal verbs do not undergo antipassivization. Like agentive verbs, impersonal verbs introduce their argument directly, so no antipassive morpheme can be added.

We have further support that internal arguments can be introduced in the syntax. Ever since Kratzer (1996), building on Marantz (1984) and Parsons (1990), proposed to 'sever' the external argument, a lingering question has been whether or not verbs introduce any of their arguments. An alternative is that all arguments are introduced syntactically (Borer 2005; Ramchand 2008; Lohndahl 2014; Alexiadou 2014; Acedo-Mattelán and Mateu 2015). This works gives a more nuanced version of this idea; externally caused change of state verbs have their internal arguments introduced syntactically, while non-core transitive verbs can introduce their arguments.

In addition, this work shows that there are two different positions for the introduction of the internal argument, one internal to the VP and one external. This analysis asks us to revisit the syntactic characterization of the unaccusative and unergative distinction and the idea that unaccusative verbs have their single argument within the VP, with unergative verbs having theirs outside.

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References

Acedo-Matellán, Victor and Jaume Mateu. 2015. From syntax to roots: A syntactic approach to root interpretation. In Artemis Alexiadou, Hagit Borer and Florian Schäfer (eds.), *The Syntax of Roots and the Roots of Syntax*, 14-32. Oxford: Oxford University Press.

Aldridge, Edith. 2012. Antipassive and ergativity in Tagalog. *Lingua* 122. 192-203.

Alexiadou, Artemis. 2014. Roots don't take complements. *Theoretical Linguistics* 40. 287-297.

Alexiadou, Artemis, Elena Anagnostopoulou and Florian Schäfer. 2015. *External Arguments in Transitivity Alternations*. Oxford: Oxford University Press.

Alexiadou, Artermis and Florian Schäfer. 2011. There insertion: an unaccusative mismatch at the syntax-semantics interface. In Mary Byram Washburn, Sarah Ouwayda, Chuoying Ouyang, Bin Yin, Canan Ipek, Lisa Marston and Aaron Walker (eds.), *WCCFL 28 On-Line Proceedings*. https://sites.google.com/site/wccfl28pro/alexiadou-schaefer.

Basilico, David. 2004. The antipassive, strong phases and imperfectivity. Paper presented at the Annual Meeting of the Linguistic Society of America.

Basilico, David. 2012. The antipassive and its relation to scalar structure. In Maria Cristina Cuervo and Yves Roberge (eds.), *The End of Argument Structure?* 75-104. Emerald Group: Bingley, UK.

Benua, Laura. 1997. Yup'ik antipassive and the AspP hypothesis. In E. Benedicto, (ed.), *UMOP 20: The UMass Volume on Indigenous Languages*, 107-138. Amherst: GSLA.

Bittner, Maria. 1987. On the semantics of the Greenlandic antipassive and related constructions. *International Journal of American Linguistics* 43. 194-231.

Bittner, Maria. 1994. *Case, Scope and Binding*. Dordrecht: Springer.

Bok-Bennema, Reineke. 1991. *Case and agreement in Inuit*. Berlin: DeGruyter.

Borer, Hagit. 2005. *Structuring Sense Vol II: The normal course of events*. Oxford: Oxford University Press.

Borer, Hagit. 2013. *Structuring Sense Vol III: Taking Form*. Oxford: Oxford University Press.

Bowers, John. 2010. *Arguments as relations*. Cambridge, MA: MIT Press.

Dowty, David. 2001. Thematic protoroles and argument selection. *Language* 67. 547-619.

Erteschik-Shir, Nomi. 2007. *Information structure: The syntax-discourse interface*. Oxford: Oxford University Press.

Fortescue, Michael. 1984. *West Greenlandic*. Croom Helm: Kent, UK.

Hale, Ken and Samuel Jay Keyser. 2002. *Prolegomenon to a theory of argument structure*. Cambridge: MIT Press.

Johns, Alana and Ivona Kučerová. 2017. Towards an information structure analysis of ergative patterning in the Inuit language. In Jessica Coon, Diane Massam and Lisa Travis (eds.), *Oxford handbook of ergativity*. Oxford: Oxford University Press.

Kratzer, Angelika. 1996. Severing the external argument from its verb. In Johan Rooryck and Laurie Zaring, (eds.), *Phrase Structure and the Lexicon*, 109-137. Dordrecht: Kluwer.

Legate, Julie Anne. 2008. Abstract and morphological case. *Linguistic Inquiry* 39. 55-101.

Levin, Beth. 1999. Objecthood: An event structure perspective. In Sabrina J. Billings, John P. Boyle & Aaron M. Griffith (eds.), *Papers from the 35th Regional Meeting of the Chicago Linguistic Society, 1: The Main Session*. 223-247. Chicago: Chicago Linguistic Society.

Levin, Beth and Malka Rappaport Hovav. 1995. *Unaccusativity: At the Syntax Lexical Semantics Interface*. Cambridge, MA: MIT Press.

Lohndahl. Terje. 2012. *Without specifiers: Phrase structure and events*. PhD thesis. College Park, MD: University of Maryland, USA.

Lohndahl, Terje. 2014. *Phrase structure and argument structure: a case study of the syntax-semantics interface*. Oxford: Oxford University Press.

Marantz, Alec. 1984. *On the Nature of Grammatical Relations*. Cambridge, MA: MIT Press.

Marantz, Alec. 2013. Verbal argument structure: Events and participants. *Lingua* 130. 152-168.

Mateu, Jaume and Victor Acedo-Matellán. 2012. The manner/result complementarity revisted: A syntactic approach. In Maria Cristina Cuervo and Yves Roberge (eds.), *The End of Argument Structure?* 209-228. Emerald Group: Bingley, UK.

Miyoaka, Osahito. 2011. Impersonal verbs in Central Alaskan Yupik. In Andrej L. Malchukov and Anna Siewierska (eds.), *Impersonal Constructions: A Cross-linguistic Perspective*, 459-488. Amsterdam: John Benjamins.

Miyoaka, Osahito. 2012. *A Grammar of Central Alaskan Yupik (CAY)*. 2012. Berlin: De Gruyter Mouton.

Nagai, Tadataka. 2006. *Agentive and Patientive Verb Bases in North Alaskan Iñupiaq*. PhD thesis. Fairbanks, AK: University of Alaska Fairbanks, USA.

Parsons, Terence. *Events in the Semantics of English: A Study of Subatomic Semantics*. Cambridge, MA: MIT Press.

Polinsky, Maria. 2016. *Deconstructing Ergativity: Two Types of Ergative Languages and Their Features*. Oxford: Oxford University Press.

Pylkkänen, Liiana. 2008. *Introducing arguments*. Cambridge, MA: MIT Press.

Ramchand, Gillian. 2008. *Verb Meaning and the Lexicon: A First Phase Syntax*. Cambridge: Cambridge University Press.

Rappaport Hovav, Malka and Beth Levin. 1998. Building verb meanings. In Miriam Butt and Wilhem Geuter, (eds.), *The Projection of Arguments: Lexical and Compositional Factors*, 97-134. Stanford: CSLI Publications.

Spreng, Bettina. 2006. Antipassive morphology and case assignment in Inuktitut. In Alana Johns, Diane Massam and Juvenal Ndayiragije (eds.), *Ergativity: Emerging Issues*, 247-270. Dordrecht: Springer.

Spreng, Bettina. 2012. *Viewpoint aspect in Inuktitut: The Syntax and Semantics of Antipassives*. PhD thesis. Toronto, ON: University of Toronto, Canada.

van Valin, Robert and Randy LaPolla. 1997. *Syntax: Structure, meaning and function*. Cambridge: Cambridge University Press.

Wood, Jim and Alec Marantz. 2017. The interpretation of external arguments. In Roberta D'Alessandro, Irene Franco and Ángel Gallego (eds.), *The Verbal Domain*. Oxford: Oxford University Press.

Woodbury, Anthony. 1981. *Study of the Chevak dialect of Central Yup'ik Eskimo*. PhD thesis. Berkeley, CA: University of California at Berkeley, USA.

Zeller, Joachim. 1996. On verbal modifiers and their thematic properties. Manuscript, Amherst, MA: University of Massachusetts, USA.