

ON THE SEMANTICS OF AFFECTEDNESS AND ITS IMPLICATIONS FOR ARGUMENT STRUCTURE IN THE KA'APOR LANGUAGE

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ABSTRACT

This article investigates the syntactic and semantic scope of the particle [*ke*] in the Ka'apor language. The analysis shows that the semantic denotation of [*ke*] is one of affectedness, such that this is the meaning that [*ke*] contributes to the D/NP that it marks. It is also demonstrated that this particle marks agents, themes/patients and goals. Based on this distribution, the paper assumes that the main role of [*ke*] is to cover both spatial concepts and notions of control. This explains why [*ke*] groups these core arguments together as a natural class. It is also posited that [*ke*] is a morphological spell-out of an abstract Case that is used to mark patients, agents with reduced control over actions and goals. Based on Woolford (2006) and Butt (2006), the proposal is that [*ke*] instantiates an abstract inherent Case, as it is highly associated with the semantics of affectedness. Finally, assuming a bieventive analysis (Pylkkänen, 2008), it is proposed that the affected agents are not introduced by the Voice head, but by a functional head that is located between VoiceP and CausP/VP. The immediate consequence of this analysis is that Voice and Cause are not fused into one head. Another conclusion is that the main role of this head is to introduce the affected agents and to assign inherent dative Case to them.

KEYWORDS: affectedness; inherent Case; argument structure; causative; Ka'apor language; Tupi-Guarani.

SOBRE A SEMÂNTICA DE AFETAÇÃO E SUA IMPLICAÇÃO PARA ESTRUTURA ARGUMENTAL NA LÍNGUA KA'APOR

RESUMO

Este artigo tem por objetivo investigar o escopo semântico da partícula [*ke*] na língua Ka'apor. A análise desenvolvida demonstra que essa partícula denota semântica de afetação, de sorte que este é o significado semântico que [*ke*] codifica ao D/NP com o qual figura. Postula-se ainda que essa partícula marca argumentos nucleares com o papel temático de agente, tema/paciente e alvo. Tendo em conta esta distribuição, assume-se que a principal função gramatical de [*ke*] é cobrir tanto conceitos espaciais como noções de controle. Tal fato explica por que [*ke*] agrupa esses argumentos em uma mesma classe natural. Adicionalmente, postula-se que [*ke*] é o *spell-out* de um Caso abstrato que figura em

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D/NPs com o papel theta de tema/paciente, agente com controle reduzido e alvo. Acompanhando o essencial da proposta teórica de Woolford (2006) e Butt (2006), a proposta delineada neste artigo é a de que a partícula [*ke*] instancia um tipo de Caso inerente, uma vez que está muito associado à semântica de afetação. Por fim, assumindo a análise bivalente de (Pylkkänen, 2008), propõe-se que agentes afetados não são introduzidos pelo núcleo *Voice*^o, mas, ao contrário, por um núcleo funcional projetado entre *VoiceP* e *CausP/VP*. A consequência imediata desta análise é que *Voice* and *Cause* não são fundidos em um mesmo núcleo funcional no âmbito da estrutura argumental. Outra conclusão é que o principal papel deste núcleo é o de introduzir agentes afetados e atribuir a ele o Caso inerente dativo.

PALAVRAS-CHAVE: afetação; Caso inerente; estrutura argumental; causativização; língua Ka’apor; Tupi-Guarani.

1 INTRODUCTION²

The purpose of this paper is to examine the grammatical status of the particle [*ke*] in order to examine its syntactic and semantic scope within clauses. Ka’apor is spoken by about 1000 people who live in the state of Maranhão, in the northern region of Brazil. This language belongs to the Tupi-Guarani family, Tupi Stock. The empirical data collected thus far indicates that [*ke*] can semantically mark internal arguments of transitive verbs, in particular those that are affected by the events expressed by verbs of activity, such as *peel* and *eat*, as follows:

- (1) *ihẽ narãj ke³ a-pirok*
 I orange AFET 1SG -peel
 ‘I peeled the orange.’
- (2) *a’e tatu ke u-’u ta*
 he armadillo AFET 3-eat VOL
 ‘He will eat armadillo.’

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3. The following abbreviations are used in the glosses: ACC: accusative Case; AFET: affected argument; AUX: auxiliary; CAUS: causative prefix; CT: a relational prefix that signals the adjacency of the internal argument in relation to its head; DAT: dative Case; ERG: ergative Case; IMIN: a particle that conveys the future tense; INF: Infinitive; G: generic; GEN: genitive Case; LOC: locative Case; NCT: a relational prefix that signals that there is no adjacency of the internal argument in relation to its head; NOM: nominative Case; PERF: perfective aspect; PL: plural marker; PRES: present tense; PROSP: prospective suffix; REFLX: reflexive prefix; REP: particle in final sentence position that indicates repetition of the action performed by the subject; VOL: volition.

Moreover, this particle is also found in contexts where it becomes enclitic to subjects of stative and unaccusative verbs, thereby giving rise to an absolutive system, as it is illustrated by the following examples:

(3) *Ana* *ke_i* *h_i-eʔð* *ʔi*
 Ana AFET 3SG-be tired PERF
 ‘Ana got tired.’

(4) *ihē* *ke* *a-’ar*
 I AFET 1SG-fall
 ‘I have fallen.’

Based on the examples above, I will be assuming henceforth that one of the roles of the particle [*ke*] is to convey the semantics of affectedness. For this reason, this particle will constitute one of our most direct tools for diagnosing when an argument is semantically affected or not. A natural assumption is then to propose that the semantic denotation for [*ke*] is one of affectedness, such that this is the meaning that [*ke*] contributes to the D/NP that it marks. Additionally, the morphosyntactic distribution of [*ke*] in the examples above suggests that Ka’apor exhibits an absolutive alignment in such a way that the object and the intransitive subjects can be both marked with [*ke*], whereas the prototypical agents remain unmarked. According to Dixon (1979, 1994)⁴, in many languages, the absolutive tends to be the unmarked Case, whereas the ergative is the marked one. In this sense, the Ka’apor data above contradict Dixon’s prediction due to the fact that only the absolutive arguments, that is, the affected internal arguments, are the marked ones, whereas the external agent remains unmarked. This observation is reinforced by the fact that the external argument, as in example (1) above and in example (5) below, is not normally marked with [*ke*], particularly in those contexts wherein this argument does exert control over the action:

(5) *araxu* *ø-ahem* *uhu*
 Araújo 3SG-shout a lot
 ‘Araújo shouted a lot.’

In sum, keeping in mind the semantic denotation of [*ke*] and its grammatical distribution in the sentences examined thus far, this paper aims to find a unified answer for the following questions:

(6a) Is it possible for this particle to mark other core arguments of the predicate, such as the agent subject of transitives and unergatives?

(6b) Does [*ke*] correspond to a Case marker? If so, which Case?

4. Dixon (1994:62) states that “in many ergative languages, the absolutive NP must obligatorily be included in each sentence, but an ergative NP may be omitted (...)”. According to Dixon, this provides further support for one to assume the following:

(i) the absolutive is the unmarked Case;
 (ii) the ergative is the marked one.

In sum, according to Dixon’s assumption, in every ergative language known to him, “the absolutive is the sole citation form.”

The article is divided into six sections. Section 2 outlines the theoretical assumption on which the analysis will be based. Section 3 presents the relevant data that will serve to advance the theoretical proposal. Section 4 demonstrates that [*ke*] can, in fact, be interpreted as being a morphological instantiation of an inherent dative Case. Section 5 explores the syntactic position of the affected agents introduced in the argument structure of unergative and transitive verbs. The final section concludes the paper.

2. THEORETICAL ASSUMPTIONS

2.1. The notion of structural Case and nonstructural Case

In this paper, I will be following the essential of Woolford's (2006) proposal that Case theory is composed of two types of abstract Case: the structural and the nonstructural. The main difference between the two types is that structural Case is dissociated from theta role and is thus licensed in a purely structural way. This proposal entails that a given structural Case can be, in principle, associated with various theta roles, whereas nonstructural Case is associated with particular θ -positions. In recent literature [Ura (2001); Woolford (1997, 2006); Legate (2006); Laka (2006)], it has been assumed that nonstructural Case comprises two distinct Cases: the lexical Case and the inherent Case. The former is idiosyncratic and cannot be predicted, whereas the latter is much more regular and predictable. According to this proposal, inherent Case is usually connected to fixed theta roles, such as the agent and the goal/experiencers. It is also assumed that ergative is the inherent Case associated with the arguments that exhibit the agent theta role, whereas dative is the inherent Case associated with the arguments that bear the goal/experience theta role, as the examples below illustrate:

Basque

(7) *Gizona-k kurritu du*
 man-ERG run AUX
 'The man ran.'
 (Levin, 1989:33)

(8) *Miren-ek atea ireki du*
 Miren-ERG door-NOM open AUX
 'Miren opened the door.'
 (Levin, 1989:20)

Japanese

(9) *Taroo-ni eigo-ga hanaseru.*
 Taro-DAT English-NOM speak-can
 'Taro can speak English.'
 (Shibatani, 1977:806)

German

- (10) *Dann hat Hans der Erna einen Kuß gegeben*
then has Hans the Erna-DAT a-ACC kiss-ACC given
'Then Hans gave Erna a kiss.'
(Czepluch 1988:92)

On the other hand, Icelandic is a good example of a language that instantiates idiosyncratic lexical Case. Within Case theory, it has been assumed that the dative in (11) and the accusative in (12) are both determined by the lexical entries of the verbs *capsize* and *drift*:

Icelandic

- (11) *Bátnum hvolfdi*
boat-DAT capsized
'The boat capsized.'
(Levin & Simpson, 1981:(1b))

- (12) *Bátinn rak á land.*
boat-ACC drifted to shore.
'The boat drifted to the shore.'
(Jónsson, 2003:(66a))

Under Woolford's (2006) approach, inherent Case cannot appear in themes/internal arguments, but only in agent/experiencer arguments. The immediate consequence of this proposal is that themes/internal arguments will not get inherent Case, nor will goals/experiencers and agents get idiosyncratic lexical Case. In sum, this generalization predicts that agents and goals/experiencers typically take ergative and dative Case, respectively.⁵ Therefore, one may conclude that internal arguments with inherent accusative Case and external arguments with lexical Case will not be found cross-linguistically.

Another issue examined by Woolford (2006) is how the two types of nonstructural Case are licensed in the syntactic derivation. She then proposes that inherent Case is licensed by little/light *v* heads in *vP* projection, whereas the idiosyncratic Cases are licensed by the lexical head *V^o* in the domain of *VP*. According to this analysis, lexical Cases are limited only to themes/internal arguments, whereas inherent Case is usually associated with external arguments. The syntactic representation below, adapted from Woolford (2006:116), aims to show the licensing mechanisms of the two types of non-structural Case in the *v-VP* domain. Notice that this theory predicts the existence of two different heads: *v_A* and *v_G*. The latter serves to introduce the arguments carrying the theta role of goal, whereas the former licenses the agent external argument:

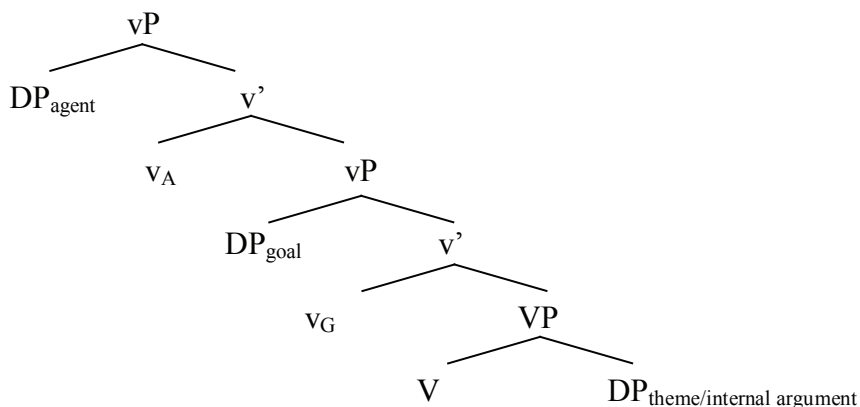
5. Woolford (2006) states this correlation by means of the following generalization:

(i) Complementary distribution of lexical and inherent Case

Lexical Case may occur on themes/internal arguments, but not on external arguments or on (shifted) DP goal arguments.

Inherent Case may occur on external arguments and on (shifted) DP goal arguments but not on themes/internal arguments.

(13)



2.2. On the Differential Case Marking Theory

Butt and King (1991, 2003, 2006) develop the Differential Case Marking Theory, henceforth DCMT. The core of this proposal is that semantic factors do seem to be at the root of most Case alternations among languages. For this reason, DCMT entails that the semantic contribution of Case cannot be relegated to the realm of lexical stipulation and cannot be seen as being mere spell-outs of feature bundles. Butt (2006) then assumes that Case systems are better understood if one takes semantic parameters into account. One piece of evidence in favor of this analysis is the fact that there is a tendency among languages to use Case alternations, both in subjects and in internal arguments, in order to express semantic contrasts. This happens in the Urdu examples below, wherein dative alternates with ergative to encode contrasts such as volition/purpose versus necessity/desire:

Urdu

(14a) *nadya=ko* *zu* *ja-na* *hε*
Nadya.F.SG=DAT ZOO.M.SG.LOC go-INF.M.SG be.PRES.3.SG
'Nadya has/wants to go to the zoo.'

(14b) *nadya=ne* *zu* *ja-na* *hε*
Nadya.F.SG=ERG ZOO.M.SG.LOC go-INF.M.SG be.PRES.3.SG
'Nadya has/wants to go to the zoo.'

Urdu (Butt, 2006:71)

In the examples above, the ergative serves to indicate greater control over the action, whereas the dative denotes that the subject has no control. Notice that the meaning of *volition/wanting* is directly obtained when the subject is marked with the ergative Case, whereas the meaning of *necessity/desire* is achieved by marking the subject with the dative. These examples point out that the ergative is associated with control over an action, whereas the dative is typically associated with goals and experiencers. Furthermore, Butt (2006:20) proposes a two-dimensional view of Case markers. Under this proposal, the spatial and the control/agency dimensions are crucial for one to understand the semantics encoded by Case systems. For instance, the spatial dimension refers to the level where the

arguments of an event are usually placed in a spatial relationship to one another. The control/agency dimension, on the other hand, captures the fact that Case marker choice is sensitive to whether the argument exerts more or less control. For example, if a language follows an ergative pattern, the ergative Case tends to be used to mark agents. Moreover, Butt proposes that the spatial dimension is more basic than the control/agency dimension. The immediate consequence of this theory is that the control/agency dimension is viewed as being a derivative of the spatial dimension. Then, Butt contends that arguments of an event, besides being placed in a spatial relationship to one another, also act upon each other. In short, the essential of Butt’s proposal is that Case markers must be semantically interpreted with respect to the spatial and control/agency dimensions.

In line with the theoretical proposals assumed here, the objective of the following sections is to show that Ka’apor exhibits an alternating Case system similar to Hindi, Bengali and Urdu. The purpose is to show that the particle [*ke*] is a dative Case marker that is triggered whenever the external arguments of unergative and transitive verbs exert low control over the action. Before presenting the details of this analysis, the next section aims to provide the reader with some descriptive facts that will be crucial for the discussions in sections 4 and 5.

3. THE RELEVANT DATA⁶

3.1. The agreement pattern

To facilitate the understanding of the agreement pattern, Table 1 shows the complete set of the personal pronouns and the agreement prefixes. It is important to mention that both intransitive and transitive verbs may trigger these prefixes, whose role is to cross-reference those nominals that appear in the syntactic position of subject. However, as Ka’apor does not exhibit object agreement, there is no set of agreement affixes for cross-referencing objects:

Table 1

Personal Markers	
Personal Pronouns	Subject Agreement Prefixes
ihẽ “I”	a- “I”
ne “you _{singular} ”	ere- “you _{singular} ”
jane “we”	ja- “we”
pehẽ “you _{plural} ”	pe- “you _{plural} ”
a`e “he/she”	o-/u- “he/she” – used in monosyllabic stems
	ø- “he/she” – used in stems with more than one syllable

6. For more detailed analyses on the Ka’apor grammar, I would direct the reader to Kakumasu (1990); Silva (2001); Caldas (2001, 2009); Duarte e Garcia (2006, 2009); Garcia (2009); and Cabana (2014).

The subject agreement prefixes encode both the intransitive subject and the transitive subject, regardless of whether the verb s-selects a theme/affected argument or an agent. Thus, the verbal agreement pattern shown below clearly indicates that the Ka'apor agreement system is not dependent on the morphosyntactic distribution of the particle [*ke*]:

Unergative

(15)	<i>ihē</i>	<i>a-por</i>	“I jumped”
	<i>ne</i>	<i>ere-por</i>	“You _{singular} jumped”
	<i>jane</i>	<i>ja-por</i>	“We jumped”
	<i>pehē</i>	<i>pe-por</i>	“You _{plural} jumped”
	<i>a'e</i>	<i>u-por</i>	“He jumped”

Unaccusative

(16)	<i>ihē</i>	<i>ke</i>	<i>a-'ar</i>	“I fell”
	<i>ne</i>	<i>ke</i>	<i>ere-'ar</i>	“You _{singular} fell”
	<i>jane</i>	<i>ke</i>	<i>ja-'ar</i>	“We fell”
	<i>pehē</i>	<i>ke</i>	<i>pe-'ar</i>	“You _{plural} fell”
	<i>a'e</i>	<i>ke</i>	<i>u-'ar</i>	“He fell”

Transitive

(17a)	<i>ihē</i>	<i>ta'yn</i>	<i>ke</i>	<i>a-mu-'e</i>
	I	child	AFET	1SG-CAUS-learn
	I taught the child. [lit: caused her to learn]			

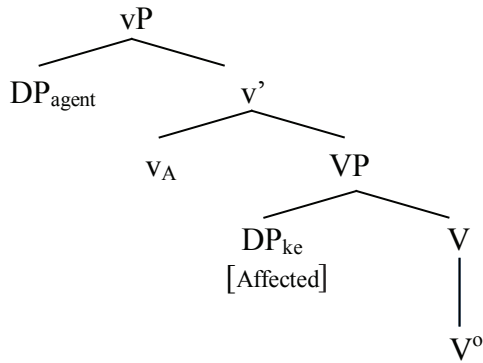
(17b)	<i>ne</i>	<i>ta'yn</i>	<i>ke</i>	<i>ere-mu-'e</i>
	you	child	AFET	2SG -CAUS-learn
	You taught the child. [lit: caused her to learn]			

In typological literature, active-stative languages usually mark intransitive subjects differently. Thus, in such languages, the affected intransitive subjects and objects usually receive the same Case marker, whereas agentive intransitive subjects and transitive subjects exhibit a different Case marker. This grammatical pattern is usually called a split-intransitive system. Even though not all split-intransitive systems are necessarily ergative, it is possible to imagine a situation in which split-intransitive languages activate two Cases for intransitive subjects. This seems to be the situation with Ka'apor, as agent subjects remain unmarked, whereas the non-agentive and affected agent subjects are usually marked with [*ke*]⁷. Based on this typological viewpoint and on the semantic denotation of [*ke*] shown thus far, I will hypothesize that Ka'apor presents a split-S intransitive system. In such a system, the intransitive verbs are divided into at least two different subclasses: the class of the unaccusatives/statives and the class of the unergatives. Observe that this division is based on the

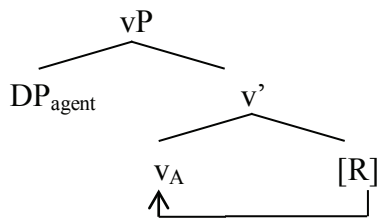
7. See section 3.2 for a detailed analysis of contexts wherein the unergative and transitive subjects can be marked with [*ke*].

fact that the unaccusative verbs s-select a patient/affected subject, usually marked with [*ke*], whereas the unergatives s-select an agent subject. The syntactic configurations proposed below show this syntactic-semantic contrast:

(18) Transitive



(19) Unergative



(20) Unaccusative

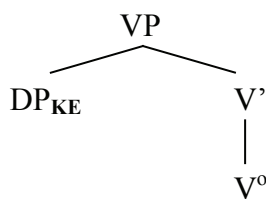


Table 2 below provides a detailed inventory of some verbs that comprise the two subclasses of intransitive verbs:

Table 2: subclasses of intransitive verbs

Intransitive verbs whose subjects are marked with the enclitic particle [ke]		Intransitive verbs whose non-affected agent subjects are not marked with the enclitic particle [ke]
Statives	Unaccusatives	Unergatives
-e'ō: be tired	-kajum: go away, be lost	-xe: come in
-yaj: be sweaty	-pen: be broken	-jahuk: have a bath
-pahar: be in a hurry	-karuk: urinate	-pikūj: row
-ky'a: be dirty	-manō: die	-por: jump
-pya'i: be sad, miss	-mano:ḃano: struggle	-hem: exit, leave
-aku: be hot	-pak: awake	-wata: walk
-juhar: be ticklish	-pyhyj: to snooze	-je'en: speak
-pu'i: be thin	-jixi'u: cry	-wapik: sit down, sink
-katu: be good	-hyk: arrive	-ninō: lay down
-ahy: to have pain	-siryk: slide	-pu'ām: stand up
-akym: be humid	-'ar: fall	-ker: sleep
-axer: be bad	-pyrii: stumble	-jengar: sing
-taj: be energetic	-'e: blow out	-wa:wak: spin
-nge: be hungry		-jan: run
-risan: be cold		-purahaj: dance
-ka'u: be dizzy		-hendu: listen
-membek: be soft		-hem: shout
		-jawir: make a mistake

The next section aims to examine other contexts of occurrences of the particle [ke] in order to demonstrate that it is, in fact, possible for [ke] to mark other core arguments of the verb, in particular affected subjects of unergative and transitive subjects. In such contexts, there is a subject-marking alternation in that [ke] encodes an agent with reduced control, whereas the default marker may signal the existence of a prototypical agent.

3.2. The occurrence of [ke] to mark affected agents and goals

In addition to marking unaccusative subjects and objects, it is also possible to find contexts in which [ke] marks the subject of agentive verbs (in principle, a situation the reader might have thought to be impossible). Interestingly, in the examples (a) below, the particle [ke] can become enclitic to the

subject of unergative verbs. In such contexts, the subject does not correspond to a prototypical agent, but to an argument whose θ -role is hybrid in nature. In other words, although it is an argument of a verb of activity, it does display some degree of affectedness. As such, this external argument corresponds to what Saksena (1980) describes as being the affected-agent in languages such as Hindi⁸. Notice that the presence or absence of [*ke*] in the examples below serves to encode contrasts, such as volition/purpose versus necessity/obligation:

(21a) *Purutu ke Ø-ahem*
 Purutu AFET 3SG-shout
 ‘Purutu shouted.’ [with some affectedness]

(21b) *Purutu Ø-ahem*
 Purutu 3SG-shout
 ‘Purutu shouted.’ [on purpose]

(22a) *Maíra ke Ø-wata*
 Maíra AFET 3-walk
 ‘Maíra walked.’ [with some effort]

(22b) *Maíra Ø-wata*
 Maíra 3-walk
 ‘Maíra walked.’ [voluntarily]

Thus, in the (a) examples above, the meaning is that the subject performed the action with some affectedness. In (21a), for example, there is an entailment that something (a stone, a knife, a chair, etc.) might have fallen on Purutu’s foot, such that he did not have a chance to avoid it. The same interpretation holds for (22a). In this sentence, the subject performed the action of walking with affectedness. The reason is that he might have done it either because he was forced or because he needed to. However, the agentive meaning is obtained when the subject does not co-occur with the particle [*ke*], as in the examples in (b). In such contexts, since [*ke*] is omitted, the meaning of affectedness cannot be inferred. Owing in particular to the semantic scope of [*ke*] within the intransitive clauses, as shown above, one can conclude that Ka’apor grammar exhibits a fluid-S system.⁹ This means that any subject of unergative verbs can, in the same way as subjects of unaccusative and stative verbs, be, in principle, marked with [*ke*]. This then allows us to conclude that action intransitive verbs (=unergatives), as well as transitive verbs, can select either an affected agent or a prototypical agent. Either choice will depend, of course, on whether or not the unergative subject can control the activity denoted by the predicate. According to Dixon (1994:81), “fluid-S characteristics have been reported for at least one language from South America – Baniwa do Içana (. . . .Arawak family).” Hence, in

8. Saksena (1980:821) assumes that affected agents “undergo a change of state physically (as in the activity expressed by running) or psychologically (as in the activity of studying). In other words, these agents have some of the properties that one typically expects of patients. These agents are not only doers (performers of their activities) but also ‘doees’ (recipients of these same activities).”

9. Dixon (1994:71) proposes that the fluid-S system employs semantically-based marking so that an unergative subject can be marked as Sa, that is, like the agent subject of transitive verbs A, or as So, that is, like the transitive object O, depending on the semantics of a particular instance of use.

addition to Baniwa do Içana, one can conclude that Ka'apor can be added to the typological inventory of the world languages as being another language from South America with a fluid-S system.

Another context in which the unergative verbs may select an affected agent is in causative constructions. Notice that the agent of the former occupies a causee position in the related causative construction due to the addition of the causative morpheme {*mu-*}. Consequently, the subject of the unergative verb becomes the internal argument of the causativized construction. Since this argument corresponds to the affected agent, it must then be marked with [*ke*], as shown in (23b):

(23a) *a'e ta a-jengar*
 he PL 1SG-sing
 'They sang.'

(23b) *ihē a'e ta ke a-mu-jengar*
 I he PL AFET 1SG-CAUS-sing
 'I made them sing.'

Here, the causative morpheme {*mu-*} encodes what Saksena (1980:819) defines as the contactive causation. The semantics of contactive causation implies that the causativized unergative verb selects an affected agent in the slot of the internal argument. According to Saksena's proposal, the selection of an affected agent (=causee) forms a necessary condition for the occurrence of contactive causation. Furthermore, the fact that the affected agent is marked with [*ke*] is clear evidence that the causative constructions of Ka'apor really correspond to the Hindi contactive causatives described by Saksena.¹⁰

Similar semantic alternation is also found in transitive constructions. For example, the verb *-pu eat* can select an affected agent or a prototypical agent that has control over the action. Then, in (24a) below, the subject has control over the action of eating and, as a consequence, [*ke*] need not appear. Thus, the action of eating armadillo suggests that the agent does it gladly and without being forced. In (24b), on the other hand, the subject is an affected participant. The reason is that, in the Ka'apor culture, to eat owl always involves being affected. The examples below illustrate this semantic contrast:

(24a) *a'e tatu ke u-'u ta*
 he armadillo AFET 3-eat VOL
 'He will eat armadillo.'

(24b) *a'e ke u-'u ta pypyhu ke tĩ*
 he AFET 3SG-eat VOL owl AFET REP
 'He is going to eat the owl.'

10. Saksena (1980:819) argues that the semantics of direct causation has an important prerequisite: "the verb must license an affected agent." Because of this, he posits that contactive causation must be directly associated with verbs that project an affected agent. To illustrate such a situation, Saksena (1980:819) provides us with the following example:

(i) *mar-nee larkee-koo parh-aa-yaa*
 I-AGT boy-OBL-D/A study-DC-PAST(m.)
 'I taught the boy.'

Because of these data, one can arrive at the conclusion that the affected agents share a common semantics: they are all the recipient of some causing event and constitute the goal towards which the action is directed. More precisely, these agents have some of the properties that one typically expects of patients and goals, as they are not only agents, but also recipients of the event represented by verbs such as “shout”, “walk”, “sing”, “eat”, among others.

More importantly, in addition to marking unaccusative subjects, transitive objects and affected agents, it is also possible to find [*ke*] marking goals in ditransitive verbs, as follows:

(25) *a'e ta Ø-ma'e Ø-jukwa-há ihẽ ke pe Ø-me'ẽ*
 3 PL G-thing CT-kill-NOML I AFT to 3-give
 ‘They gave poison to me.’

(26) *ihẽ kamanai a-panu ne ke pe*
 I bean 1SG-ask you AFT to
 ‘I asked (some) bean to you’.

Notice that the occurrence of [*ke*] to mark goals brings further evidence for Butt’s (2006:20-21) localist theory, according to which the spatial dimension is more basic than the control/agency dimension. Based on this view, one may be tempted to postulate that [*ke*] originates from a spatial relation, marking goal arguments, and then extends further to mark theme/patient arguments, as well as agents with low control. This proposal, in turn, helps us to understand the syntactic distribution of [*ke*] within transitive clauses, as it can even mark both the subject and the object simultaneously in the same clause, as follows:

(27) *a'e ke u-'u ta pypyhu ke tĩ*
 he AFET 3SG-eat IMIN owl AFET REP
 ‘He will eat owl.’

(28) *ne ke u'i ke re-karãj ta*
 2SG AFET manioc AFET 2SG-toast IMIN
 ‘You will toast manioc.’

(29) *a'e ta ke u-'u ta moj ke tĩ*
 he ASS AFET 3SG-eat IMIN snake AFET REP
 ‘They will eat snake.’

(30) *a'e ke i-py ke Ø-tukwa*
 he AFET NCT-foot AFET 3-hit
 ‘He has hurt his own foot.’

- (31) *a'e ke Ø-eha ke Ø-tukwa iĩ*
 he AFET CT-eye AFET 3-hit REP
 'He has hurt his own eye.'

In sum, based on the data examined thus far, one can conclude that the main role of [*ke*] is to cover both spatial concepts and notions of control. In turn, this explains the reason why [*ke*] can mark patients, affected agents and goals, grouping them together as a natural class of core arguments. This view conforms to Butt's (2006:20-21) localist theory that the arguments of an event can establish either a spatial relationship to one another or act upon each other.¹¹

The objective of the next section is to demonstrate that [*ke*] is an instantiation of a semantic/inherent Case. As it will be shown, this Case is semantically predicted due to the fact that it is always associated with arguments that bear the affected theta role.

4. DOES [*KE*] CORRESPOND TO A CASE MARKER?

Taking into consideration the fact that external arguments (affected agents), internal arguments (affected patients) and indirect object arguments (goals/recipients) can all be marked with [*ke*], I will assume henceforth that this particle is a morphological spell-out of an abstract Case that is used to mark patients, agents with reduced control and goals. We can further admit that it corresponds to a dative Case in the sense of Woolford (1997, 2006), in that it is not exactly a structural Case, but a semantically-oriented Case.¹² Strong evidence in favor of this proposal comes from the fact that the occurrence of [*ke*] is highly predictable, inasmuch as it cannot be associated with various theta roles, but only with a fixed semantic interpretation, usually the one related to the semantics of affectedness.

Another piece of evidence is that there is a tendency among languages to use Case alternations, both with subjects and with internal arguments, in order to express semantic contrasts. This is the situation in Urdu, for example, where the dative alternates with the ergative, and in Bengali, where the genitive alternates with the nominative.¹³ Since there is no dative available in Bengali grammar, the genitive is used to cover the meaning of affectedness. Butt (2006:74) calls our attention to the fact that Bengali uses the genitive Case where other languages tend to employ the dative. Thus, in Bengali, the nominative acts as the default marker for agents, whereas the genitive is used to express an argument that has reduced control over the action, as follows:

11. Butt (2006:84) proposes that 'genitives tend to express possession, which is basically a notion of place: x be at y.' Ergatives are also sometimes observed in conjunction with possession (...) Instrumentals can express both place and path because 'with x' can be interpreted both as 'x be at y' and as 'x goes along with y.' Comitative uses are therefore also included in this use."

12. Ura (2000:336) argues that, while the structural Case is dissociated from the theta role and assigned in a purely structural way, the inherent Case is closely linked with the theta role. Hence, various theta roles may, in principle, be assigned to an element with a given structural Case. This captures a well-known fact concerning a difference between structural Case and inherent Case. In accusative languages, such as English, Latin and Japanese, nominative marked arguments may usually have various kinds of theta role. Inherent marked arguments, on the other hand, can only have a fixed theta role.

13. Butt (2006:84) proposes that the dative may be interpreted both "as a goal (place) and, in contrast to another case marker, as an agent with reduced control over the action. (...). In Urdu, the dative contrasts with the ergative. In Bengali, the genitive contrasts with the nominative. Given that Bengali has no ergative case, the nominative acts as the default marker for agents; and the genitive, in contrast with the nominative, indicates reduced control over the action."

(32a) *ami tomake cai*
 I.NOM you.ACC wants
 ‘I want you.’ (Klaiman, 1980:279)

(32b) *amar tomake cai*
 I.GEN you.ACC wants
 ‘I need you.’ (Klaiman, 1980:279)

Interestingly, the same Case alternation also seems to hold in Ka’apor, since the dative Case, instantiated by [*ke*], alternates with the unmarked nominative subject, both in unergative and transitive sentences, as repeated below:

(33a) *Purutu ke Ø-ahem*
 Purutu DAT 3SG-shout
 ‘Purutu shouted.’

(33b) *Purutu Ø Ø-ahem*
 Purutu NOM 3SG-shout
 ‘Purutu shouted.’

(34a) *a’e ke u-’u ta pypyhu ke tĩ*
 he DAT 3SG-eat VOL owl AFET REP
 ‘He is going to eat the owl.’

(34b) *a’e Ø tatu ke u-’u ta*
 he NOM armadillo AFET 3-eat VOL
 ‘He will eat armadillo.’

Based on data like these, it thus seems quite plausible to postulate that Ka’apor exhibits the same Case alternation as Hindi, Urdu and Bengali. However, as Ka’apor is not exactly an ergative language like Urdu, it will be the unmarked nominative that alternates with the dative to indicate prototypical agents with high control over the action. Based on these lines of reasoning, I will assume hereafter that the inherent dative Case, which is expressed by the enclitic particle [*ke*] in Ka’apor, bears the following semantic interpretations:

(35a) It marks arguments that are goals (spatial dimension relation).

(35b) In subject Case alternation contexts, the dative will be used to encode an agent with reduced control, whereas the nominative will indicate a prototypical agent.

(35c) It can mark affected objects (internal affected causee) to contrast it with the non-affected object.

Before closing this section, it is important to recall that, in many languages, distinct syntactic functions are usually expressed by form-identical Case markers. This occurs, for example, in Urdu where the Case marker *ko* is used for marking both the dative and the accusative.¹⁴ In other languages, the markers of instrumentals and ergatives, or instrumentals and genitives, also tend to be form-identical. A similar situation also holds in Ka’apor, as [*ke*] covers different syntactic slots, thereby resulting in homophony of the Case markers of subject and direct/indirect object. A clear piece of evidence in favor of this is the fact that [*ke*] can occur even twice in the same sentence, marking both the subject and the object, as follows:

- (36) *a'e ke Ø-eha ke Ø-tukwa ãĩ*
 he DAT CT-eye DAT 3-hit REP
 ‘He has hurt his own eye.’

Therefore, based on the empirical data examined thus far, one is led to conclude that [*ke*] is a dative Case marker that spreads over several cells, occurring in the slots of subjects, direct objects and indirect objects.¹⁵ In sum, it seems quite reasonable to assume that [*ke*] is, in fact, an instantiation of the inherent dative Case that engages in competition with the unmarked nominative Case in order to encode a system of semantic contrasts, a situation that is quite pervasive in languages such as Hindi, Urdu and Bengali, among others.

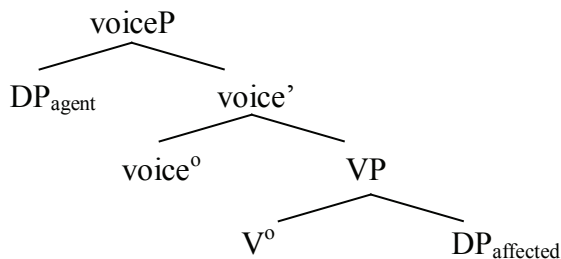
5. WHICH HEAD INTRODUCES THE AFFECTED AGENT?

The analysis outlined in the previous section poses an additional problem for our analysis concerning how to reconcile the fact that transitive and unergative verbs select an affected agent with the current assumptions, according to which action verbs usually s-select an agent. Kratzer (1996), for example, proposes that the functional domain of these verbs contains a Voice head, which denotes a thematic relation and conjoins to the VP. Furthermore, Kratzer (1996:125) observes that the external argument is not an argument of its verb, but an argument of the functional projection VoiceP. According to Kratzer, this projection denotes “the canonical denotation for a sentence within an extensional semantics.” In line with this reasoning, Kratzer (1996:126) assumes that Voice is a functional head located directly above VP. This head introduces the external argument and assigns the accusative Case to the object in transitive verbs. In accordance with this proposal, one can assume that the main role of the Voice head is to introduce the external argument, as is indicated by the syntactic structure below:

14. See Butt (2006) for a detailed analysis on the Urdu Case system.

15. Notice that, in Butt’s (2006) proposal, this is expected as part of language change, when new case markers enter the language or engage in competition in a system of semantic contrasts. According to Butt’s theory, “if a Case marker can express both low control (affectedness) and the dimension of place and path, then this Case marker can take over the semantic space of the accusative as well as the dative, thus resulting in homophony of the accusative and dative.”

(37)

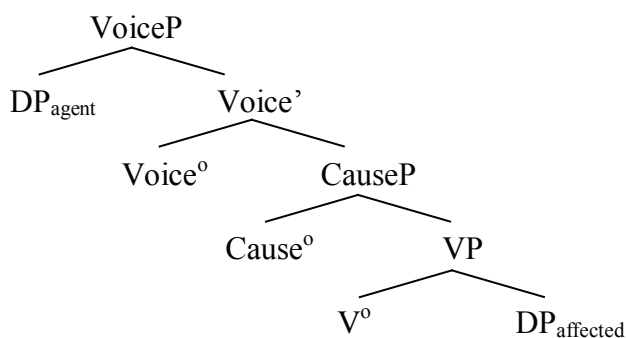


Keeping in mind that unergative and transitive verbs in Ka'apor do project an “external” argument with the semantic property of affectedness, we are led to conclude that the affected agent cannot be equivalent to the external argument of the structure in (37). To be more precise, this argument cannot be introduced by the Voice head in Ka'apor. For this reason, the main objective of this section is to find a coherent explanation for the following question:

(38) Which head introduces the **AFFECTED AGENT** in the external argument positions of transitive and unergative verbs in Ka'apor?

To answer this question, an alternative is to adopt Pykkänen's (2008) bieventive analysis and to postulate the existence of a head **CAUSE**, which is responsible for introducing a causing event in the argument structure of action verbs. According to this approach, the head **CAUSE** is responsible for a thematic relation between the causing event and the individual expressed as the external argument. In line with this theory, the difference between **CAUSE** and **VoiceP** is that only the latter introduces an external argument, whereas **CAUSE** introduces the event argument, as depicted by the syntactic tree below:

(39)



Based on the structure above, we can then propose that the constructions with the affected agent do convey a causative meaning, which, in turn, entails the existence of two events: a causing event and a caused event. As a consequence of this proposal, the meaning of the sentences in (a) below is roughly as shown in the explanation in (b):

(40a) *ihẽ ke u'i¹⁶ a-karãj*
 I AFET manioc 1SG-toast
 'I toasted manioc.'

(40b) ['I' was an agent of a causing event, but 'I' performed it while being affected. 'I' did it with some suffering and 'I' had no control over this suffering. The reason: in the Ka'apor culture, manioc is toasted on an adobe stove so that the person suffers from the heat of the stove, which can be extreme.]

(41a) *Purutu ke Ø-ahem*
 Purutu AFET 3SG-shout
 'Purutu shouted [because he was feeling pain].'

(41b) [= Purutu was an affected agent of an event that caused him to shout.]

We can admit that the causative meaning in the sentences above reflects, after all, the fact that Voice is not projected. Based on this, I contend that the constructions with the affected agents lack the head Voice, a situation which signals that Voice is not bundled with CAUSE in Ka'apor. A piece of evidence in favor of this analysis comes from the contexts below, in which the presence of an external argument, in the sense of Kratzer (1996), is not so obvious, even though the head CAUSE is morphologically realized by the causative prefix {*mu-*}:¹⁷

(42) *myra Ø-pirer ke te'e pira-wan Ø-mu-wak*
 tree GEN-bark AFET really fish-PROSP 3-CAUS-turn
 'The bark of the tree will really turn into a fishlike being.'¹⁸

(43) *ihẽ ke a-ju-mu-kahem*
 I AFET 1SG-REFLX-CAUS-frighten
 'I was frightened.'

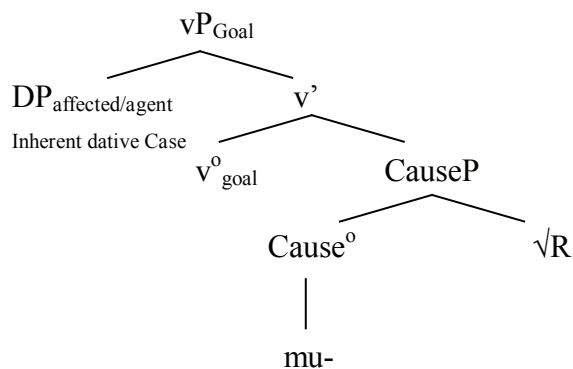
Based on examples such as these, I will then propose that the affected agents in Ka'apor are not introduced by the Voice head, but by a head that is located between VoiceP and CauseP. We can further admit that this head corresponds to the little/light v_G head. Recall that, in Woolford's (2006) theory, the main role of this head is to introduce goals and to assign the inherent dative Case to them. Hence, adapting Woolford's (2006) proposal with Pykkänen's (2008) bieventive analysis, I will thus argue that the affected agent must sit in the specifier of vP_{goal} , a position in which the affected agent has its inherent dative Case checked, as follows:

16. Manioc is a kind of flour that is usually made from the thick fleshy roots of a tropical plant. More importantly, manioc is also known as cassava in English.

17. Pykkänen (2008:99-100) posits that "while Cause and Voice are separate pieces in the universal inventory of functional heads, they can be grouped together into a morpheme in the lexicon of a particular language." She further assumes that "in the English causative head, (...), the causative relation and the external θ -role are 'packaged' into one morpheme and consequently into one syntactic head. In other words, the English Cause is 'Voice-bundling'." Notice that Ka'apor data contrasts with English in this respect due to the fact that Voice and Cause are projected separately in the former.

18. Notice that this sentence is used in a mythical narrative, in which animals and the vegetation of the forest are usually characters and, thus, can speak and participate actively in the plot.

(44)



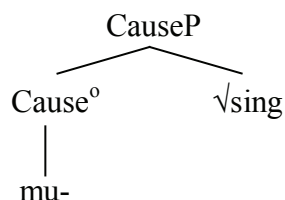
In sum, the proposal in (44) entails that Ka'apor allows a parametric option in the sense that CAUSE and VOICE are not *packaged* into one syntactic head. A strong piece of evidence in favor of this assumption comes from the fact that it is possible to causativize unergatives by means of the prefix {*mu-*}, as we see in sentence (46):

(45) *a'e ta a-jengar*
he PL 1SG-sing
'They sang.'

(46) *ihẽ a'e ta ke a-mu-jengar*
I he PL AFET I 1SG-CAUS-sing
'I made them sing.'

Interestingly, when we add the causative morpheme {*mu-*}, the agent becomes the causee (the affected agent). Thus, if we assume Pylkkänen's (2006:104) and Hale and Keyser's (2002) analyses that there are causatives that do not involve two VPs, then the construction in (46) must have a functional element CAUSE that directly takes a category-neutral root as its argument. If this analysis is really on the right track, then the main role of the causative prefix {*mu-*} is simply to derive an unergative verb from a category-neutral root.¹⁹ In line with this view, I will thus propose that the abstract syntactic structure of a root-causativized unergative in Ka'apor has the following format:

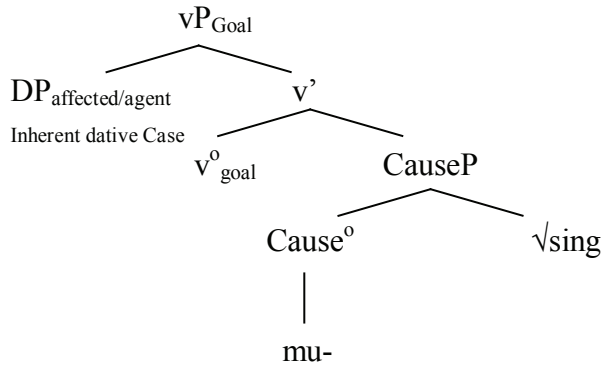
(47)



19. Pylkkänen (2006:104) assumes that "there are causatives that are syntactically derived but do not involve two VPs. In other words, the functional element Cause could take a category neutral root as its argument directly (...). In this structure, the causative head is v ("little v"), that is, it bears verbal category and therefore derives a verb from the category-neutral root". In line with this, she further assumes that root-selecting causatives do not allow VP modification of a caused event to occur in root-selecting causatives. In addition, she proposes that there cannot exist any verbal morphology between the root and Cause, neither agent-oriented modification of a caused event, nor high applicative morphology between the root and cause.

Since a root-selecting causative head must combine directly with a root, the affected agent marked with [ke] cannot intervene between the root and Cause. Consequently, this argument must be introduced above Cause but below the Voice head. Along these lines, a natural assumption is then to posit that the little/light vG head introduces this argument and assigns the inherent dative Case to it, as follows:

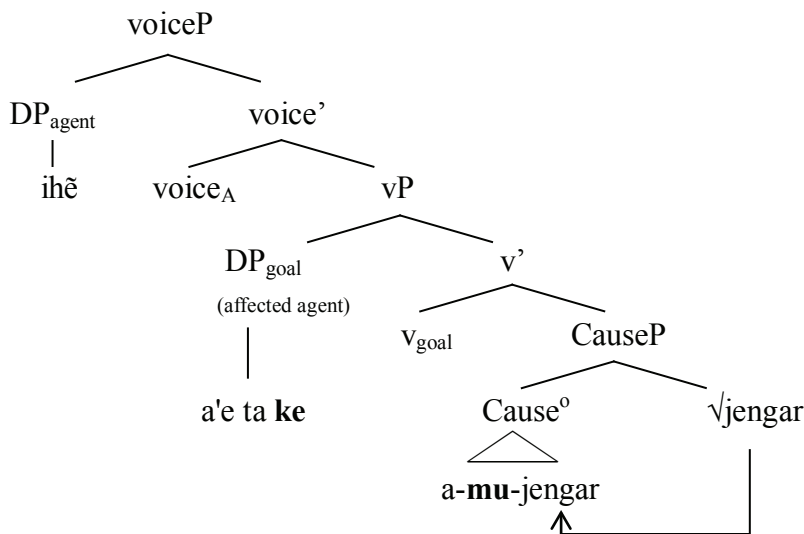
(48)



Further empirical evidence in favor of the separation of CauseP and VoiceP is the fact that the non-affected agent can even co-occur with the affected agent, as it is the case of the root-causativized unergative. Then, sentence (49) must have the structure depicted in (50). In such a configuration, the root \sqrt{jengar} conflates into the head $Cause^0$ to form the unergative verb; the head v_G projects the affected agents and assigns the inherent dative Case to it; and the Voice head introduces the external non-affected argument:

(49) *ihē a'e ta ke a-mu-jengar*
 I he PL AFET 1SG-CAUS-sing
 'I made them sing.'

(50)



A final piece of evidence in favor of the proposal in (50) has to do with verbal morphology. According to Pylkkänen (2008:105), “with root-selecting causatives, no verbal morphology should be possible between the causative morpheme and the root. Any such morphology would verbalize the root and form a constituent that a root-selecting causative head would not be able to combine with.” This predicted situation is confirmed by the verb template below, wherein no morpheme intervenes between the root and causative prefix {-*mu*-}, as follows:

Table 3: Linear order of verbal morphemes

PREFIX 1	PREFIX 2	PREFIX 3	VERBAL ROOT	SUFFIX 1
Subject agreement	Reflexive	Causative	verb	Negation
a- “I” <i>re</i> ~ <i>ere</i> ~ <i>e</i> - “you” <i>ja</i> - “we” <i>pe</i> - “you” <i>o</i> - ∞ <i>u</i> - ∞ ∅ - “they”	<i>ju</i> -	<i>mu</i> -		-’ym

Finally, it is important to point out that the proposal outlined in this section brings further evidence to Pylkkänen’s claim that the main role of causativization is not necessarily to introduce an agent to the structure, but simply to encode the existence of a causing event. In this sense, the causative constructions of Ka’apor are, in a certain way, quite parallel to the adversative causatives of Japanese, inasmuch as it is not always obvious that there is an agent of the causing event. These are the grounds that allow one to separate the head Voice from the head Cause, both in Ka’apor and in Japanese, as opposed to languages such as English, in which Voice and Cause are packaged into one head.

6. FINAL REMARKS

This paper shows that one of the main roles of the particle [*ke*] is to convey the semantics of affectedness. Furthermore, the analysis presents evidence that [*ke*] can mark affected agents, patients and goals. Another conclusion is that [*ke*] can be formally interpreted as an inherent dative Case marker that engages in competition with the unmarked nominative Case in order to encode a system of semantic contrasts, such as high control versus low control. It is also assumed that the appearance of [*ke*] to mark goals is evidence in favor of a proposal that there is a Case homophony in that the dative Case may mark subjects, objects and goals. This fact allows us to posit that [*ke*] originates as a spatial relation marker to encode goal arguments so that its usage is extended to mark theme/patient arguments, as well as agents with low control. This proposal provides us with new evidence in favor of Butt’s (2006:20-21) localist theory that the arguments of an event can establish either a spatial relationship to one another or act upon each other. Finally, it is argued that the appearance of

the affected subject with verbs of activity is only possible due to the fact that CAUSE and Voice are not fused into one head. The consequence of this approach is that the affected agent and non-affected agent are not introduced by the same head during the derivation. To be more precise, the affected agent is introduced by the little/light v_G head, whose main role is to assign the inherent dative Case, whereas the non-affected agent is merged in the specifier position of the Voice Head.

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