

Towards A Unified Structural Account for Passives and Antipassives

Evidence from Case Marking

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ABSTRACT

This paper provides suggestions for a parallel structural account of passives and antipassives in nominative-accusative and absolutive-ergative languages, motivated by observations from case marking. In contrast to previous approaches, it will be argued that passives and antipassives are not derived from their active transitive counterparts, but that verbs in these constructions only select one argument, while the second argument can be optionally realized as an adjunct PP. In order to account for the semantic saliency of the second argument, it is proposed to focus further research on the valency reducing operation in a dynamic lexicon, as e.g. suggested by Reinhart & Siloni (2005). The proposed analysis avoids unnecessarily complicated derivations and offers a straightforward explanation for the observed θ -roles and case marking. At the same time, it allows for a parallel account of passives and antipassives that holds across alignment systems, which have often been analysed separately.

1. Introduction¹

Numerous papers as early as Chomsky (1957) have tried to explain how to derive a passive sentence, such as ‘The dog is fed by me’, from its active counterpart, ‘I feed the dog’. The present paper will take observations from case marking as a motivation to challenge that view of the passive, and as a chance to connect it with accounts of the antipassive, a related phenomenon.

Given their meaning, it seems sensible to assume that active and passive sentences are structurally related. As can be observed in example (1), the arguments in the active and passive sentences carry the same θ -roles. However, the passive sentence in (1b) sets itself apart in at least three ways from the active counterpart in (1a): the inflectional morphology of the verb differs, the arguments have switched Case, and the logical agent is part of an optional by-phrase. Similar issues can be observed in passives of absolutive-ergative languages such as Labrador Inuit in example (2). A derivational account of passives would need to account for these differences with syntactic operations, e.g. with transformational rules, as Chomsky (1957) proposes.

¹ I would like to thank the teachers and fellow students of the 2020 Syntax Interfaces course at Utrecht University, the audience at the virtual 68th StuTS, as well as three anonymous reviewers for their valuable feedback. All remaining errors are my own.

(1) *German* (NOM-ACC alignment)

a. Ich füttere den Hund *Active*
 1SG.NOM feed.1SG DET.ACC dog.ACC²
 'I feed the dog.'

b. Der Hund wird (von mir) gefüttert
 DET.NOM dog.NOM AUX (by 1SG.DAT) feed.PTCP
 'The dog is fed (by me).'

Passive

(2) *Labrador Inuit* (ABS-ERG alignment; Smith, 1982:165)

a. Anguti-up annak taku-janga *Active*
 Man-ERG woman.ABS see-3SG.SUBJ.3SG.OBJ.PRS
 'The man sees the woman.'

b. Annak (anguti-mut) taku-jau-juk *Passive*
 Woman.ABS (man-DAT) see-PASS-3SUBJ.PRS
 'The woman is seen (by the man).'

Despite being treated as a separate, almost unrelated phenomena in the literature, passives and antipassives have in common that one of their arguments changes: in passives, it is usually the agent, in antipassives it is usually the patient. Like the passive example above, the derivation of antipassives poses the same theoretical challenges, as illustrated by the examples in (3). The verb exhibits different inflectional morphology, usually a special antipassives marker (AP), and the case marking on the arguments changes. Depending on the language, the logical patient might be present, but less important to or less impacted by the event, and can be found in something like a by-phrase, as in (4), or even be omitted entirely (Polinsky, 2017).

(3) *Inuktitut* (ABS-ERG; Spreng, 2006:252)

a. Piita-up nanuq kapi-jaa *Active*
 Peter-ERG polar bear.ABS stab-PTCP.3SG/3SG
 'Peter stabbed the polar bear.'

b. Piita kapi-si-vuq nanur-mik *Antipassive*
 Peter.ABS stab-AP-IND.3SG polar bear-OBL
 'Peter stabbed a polar bear.'

2 The following glosses are used in this paper: ABS – absolutive, ACC – accusative, AP – antipassive marker, ASP – aspect marker, AUX – auxiliary, DAT – dative, DET – determiner, ERG – ergative, FOC – focus marker, IN – intransitive marker, M – masculine, NOM – nominative, OBJ – object, OBL – oblique, PASS – passive, PRS – present, PST – past, PTCP – participle, REFL – reflexive, SG – singular, SUBJ – subject, THV – thematic vowel, TR – transitive marker, Q – question particle

(4) *Ukrainian* (NOM-ACC; Polinsky, 2017)

a. Did sxopyv ripk-u *Active*
 Grandfather.NOM.M grab.PST.M turnip-ACC
 ‘Grandfather grabbed the turnip.’

b. Did sxopyv-sja za ripk-u *Antipassive*
 Grandfather.NOM.M grab.PST.M-REFL at turnip-ACC
 ‘Grandfather grabbed at the turnip.’

This paper will revisit the hypothesis that passives and antipassives are built on the structure of actives and move on to propose an alternative analysis, which will be based on the comparable observations of case marking across the different voice types and across alignment systems. Out of the three main challenges pointed out above, focusing on Case has several advantages. For example, assuming that case assignment rules are syntactic rules, languages that morphologically mark Case give us insights about the underlying structure. For the purpose of this paper, the following principles are assumed: in nominative-accusative languages, the internal argument of a transitive verb receives accusative Case from *v*, the external argument moves to the subject position Spec, TP and receives nominative Case. Following the Uniform Theta-Assignment Hypothesis (UTAH; Baker, 1988), which states that specific θ -roles should always be assigned in the same specific position, it can generally be expected that the external argument will be the agent and the internal argument the patient. In absolutive-ergative languages, the agent argument receives ergative case, opposing the absolutive, which can be object case in transitive or the subject case in intransitive constructions.

This set of rules yields clear predictions about what Case we expect on arguments in passive and antipassive constructions, under the assumption that they are derived from the same transitive *vP* as their active counterparts: in nominative-accusative languages, the agent argument should be marked for nominative, the patient for accusative Case. In absolutive-ergative languages, the agent should be marked for ergative, the patient for absolutive Case. If one now compares these expectations with the observations from the passives and antipassives in both alignment systems from examples (1-4), again summarized in Table 1, two cases of interest emerge: in the nominative-accusative passive and the absolutive-ergative antipassive, the predicted Case differs from the observed morphological marking. In addition, it can be observed that the optional argument is often marked with oblique case. From this comparison, the question arises how the discrepancy between expected and observed Case in passives and antipassives arises in syntax.

Table 1
Predicted vs. Observed Case in Passives and Antipassives

Alignment System	Argument	Predicted Case	Observed Case (Passive)	Observed Case (Antipassive)
NOM-ACC	Agent	NOM	(ACC/OBL)	NOM
	Patient	ACC	NOM	(ACC)
ABS-ERG	Agent	ERG	(OBL)	ABS
	Patient	ABS	ABS	(OBL)

Round brackets (): optional omission of the argument, bold: expectation/observation mismatch

In section 2, previous explanations will be explored and their main strengths and weaknesses will be discussed. Section 3 will then put forward an alternative proposal that unifies accounts of passives and antipassives and holds in both alignment systems. Finally, section 4 will summarize and conclude.

2. The Case Assignment Problem in Previous Accounts of Passive and Antipassive Syntax

While the general syntactic structure of passive sentences has received a lot of attention in the literature, most accounts have other focal points than case assignment. Nevertheless, there are accounts that do touch on the problem and suggest solutions for it, which will be explored in this section.

Jaeggli (1986) centers his account of the syntactic structure of passives on the passive morpheme that is base-generated in I, but has less inflectional properties than properties driving the specific structure of passives. The morpheme lowers from I to V, so that V will assign it the θ -role of the external argument, as well as the objective Case. The passive morpheme ‘absorbs’ the θ -role and Case. As a result, the internal argument cannot receive Case from the verb anymore, which is why it needs to move to the subject position, where it receives subject Case. The passive morpheme’s θ -role and Case percolate to the *by*-phrase, where its head *by* then assigns them to its NP complement, the logical agent. Any variation of this process, such as the optionality of the *by*-phrase or other observed Case patterns, is language-specific according to Jaeggli.

Baker, Johnson & Roberts (1989) build on Jaeggli’s (1986) approach, specifying that the passive morpheme is a clitic that is ‘downgraded’ from I to V. They are more hesitant towards the term ‘case absorption’, as the clitic does not absorb the case, but simply receives it. The passive clitic and the NP in the *by*-phrase form a chain, so that case in the *by*-phrase follows the rules of clitic doubling.

The noun incorporation or case absorption theory was also proposed for the antipassive by Baker (1988). An abstract nominal element, the antipassive morpheme (AP), is base-generated in the VP, where it moves to V and absorbs the Case that the internal argument would otherwise receive. The object can be optionally realized as an adjunct.

The case absorption accounts are problematic because they rely on the process of ‘downgrading’, which is essentially rightward movement. Additionally, it remains unclear how and why the passive morpheme differs from its homophonous counterpart, the past particle inflection. Finally, the approach violates UTAH, as θ -role assignment varies between actives and passives.

Collins (2005) picks up primarily on this last point of criticism, circling back to the essential core of Chomsky’s (1957) assumption that the passive and active are derivationally related, building on the structure dictated by UTAH. He rejects the concept of case absorption. Instead, he proposes that the internal argument is hidden in a PartP, in which it can be ‘smuggled’ across the external argument to subject position, where it can receive subject Case. While Collins is adamant about upholding UTAH, he allows the active and passive to have different rules for Case assignment: while in the active, Case is assigned by *v*, it is associated with the VoiceP in the passive, and thus not assigned by *v*, but the functional Voice head. This head is occupied by a purely functional *by*, which then assigns accusative Case to the DP in Spec,VP.

While Collins reconciles the critical points of Jaeggli’s (1986) and subsequent accounts, such as re-enforcing UTAH, his approach comes with its own issues. For example, it is not clear why he takes UTAH to be universal, but not Case assignment. More importantly, the ‘smuggling’ operation is a postulation that specifically derives passives, but cannot be found elsewhere in language. Gehrke & Grillo (2009) point out that smuggling also creates a look-ahead issue: the packaging of the internal argument only takes place so that it can move later, before there is something in the structure that could trigger this movement, and not accounting for languages that can passivize without movement. However, while Gehrke & Grillo make interesting remarks about passive structure in general, their explanations are only peripheral to the cause of this paper, as they do not offer any alternative explanations concerning the Case assignment problem.

Alexiadou, Anagnostopoulou & Schäfer (2018) also reject Collins’ smuggling approach, agreeing with Bruening (2012) that the *by*-phrase should be a PP, not a DP. They show that it is not just a purely functional dummy link, but forms a proper PP in which Case assignment follows from P and not the Voice head. This is illustrated in (5): German allows different Ps to head the *by*-phrase, and the DP’s case marking depends on the properties of this P. Collins’ approach cannot account for this observation, as it predicts that the *by*-phrase will always be accusative, because in his approach, that is the Case Voice assigns instead of *v*.

(5) *German*

a. Die Geschichte wird von dir erzählt
 DET.NOM story.NOM AUX by 2SG.DAT tell.PTCP
 'The story is told by you.'

b. Die Geschichte wird durch dich erzählt
 DET.NOM story.NOM AUX by 2SG.ACC tell.PTCP
 'The story is told by you.'

Alexiadou, Anagnostopoulou & Schäfer (2018) further criticize that Collins' approach predicts that all transitive verbs would be able to passivize, and present counter-evidence from Greek. This leads to their own suggestion that passives are not always derivationally related to actives, but that languages differ in how they build passives. While in some languages such as English, the passive indeed builds on the active, other languages such as Greek have different kinds of Voice heads, which select active, passive or unaccusative complements. These different language-internal options arise from individual selectional restrictions that are specified for each verb in the lexicon. While this approach reflects cross-linguistic variation more accurately than e.g. Collins', it does so to the expense of multiple different structures for the same phenomenon.

Some accounts of antipassive syntax, such as Spreng's (2006) analysis of Inuktitut (see example (3)), also assume at least two strategies to build the structure within the same language. Spreng disagrees with the noun incorporation account of Baker (1988) and instead argues that the structure depends on whether or not the antipassive morpheme is present: if that is the case, it can occupy *v* and license structural accusative, so that this kind of antipassive would be derived like the usual transitive verb phrase. When the antipassive morpheme is not present, and thus not in *v*, *v* cannot assign structural accusative to the internal argument, which instead realizes oblique case. While this account accurately captures the distribution of the antipassive morpheme, it has weaknesses in accounting for the presence of oblique case. In addition, it builds on the assumption that *v* does not always assign Case, in fact, that *v* never assigns structural Case in ergative languages. This implies that *v* can have differing, language-dependent properties, which again requires an explanation and questions the universality of the functional head.

In some languages, such as K'iche' (Mayan), the transitive verb usually agrees with both the subject and object, as in (6a). However, in the antipassive, the verb only agrees with one argument, the agent, as in (6b). This interesting pattern of verbal agreement can also be observed in other languages such as Inuktitut (Spreng, 2006) or West Greenlandic (Schmidt, 2003), and has given rise to comparisons of the antipassive syntax with the structure of intransitives: There may be two arguments like with transitive verbs, but the verb agrees with the subject only, like an intransitive verb.

(6) *K'iche'* (Davies & Sam-Colop, 1990)

- a. La x-∅-a-chap le tz'unun? *Active*
 Q ASP-3ABS-2ERG-catch DET hummingbird
 'Did you catch the hummingbird?'
- b. La at x-at-chap-o-w le tz'unun? *Antipassive*
 Q 2SG ASP-2ABS-catch-THV-AP DET hummingbird
 'Was it you who caught the hummingbird?'

As additional evidence, Davies & Sam-Colop (1990) show that in verb-final anti-passive *K'iche'* clauses only the intransitive suffix can be used, while the transitive suffix is ungrammatical, as can be seen in (7).

(7) *K'iche'* (Davies & Sam-Colop, 1990)

- a. Are' le kab'raqan x-∅-wuli-n-ik *Antipassive*
 FOC DET earthquake ASP-3ABS-crumble-AP-IN
 'It was the earthquake that crumbled it.'
- b. *Are' le kab'raqan x-∅-wuli-n-o *Antipassive*
 FOC DET earthquake ASP-3ABS-crumble-AP-TR
 (It was the earthquake that crumbled it.)

The *K'iche'* data give rise to the question why transitive verbs should behave like intransitive verbs in certain contexts. Davies & Sam-Colop (1990) apply Perlmutter & Postal's (1977) demotion analysis that was originally conceptualized for passives, to antipassives. The proposal was formulated within the framework of Relational Grammar, which describes syntactic dependencies as abstract relations between the elements of a clause: if a verb is passivized, the relations to its arguments change. Passive verbs start the derivation with relations to two arguments, and end it with relations to only one argument. While it is unclear how this process would be translated into operations of Generative Grammar, the general idea of comparing antipassives to intransitives prevails.

While many of the accounts of passive and antipassive syntax necessarily touch on the case assignment problem, none of them can fully or uniformly explain the mismatch between predicted and observed case. In the following section, the Case patterns described above will be taken as a motivation to argue for a unified account of passives and antipassives that builds on their parallels with intransitive verbs.

3. Evidence from Case Marking for a Non-Derivational Account

3.1 The Proposal

Passives and antipassives resemble sentences with intransitive verbs in certain properties, some of which were established above already. The two arguments, which are usually both obligatorily overt in the transitive active sentence, do not have the same syntactic status or semantic relevance in passives and antipassives.

Like unaccusatives, the main argument in passives is non-agentive, usually a patient. Like unergatives, antipassives usually have an agent argument. In either case, that one argument morphologically realizes nominative or absolutive Case. The second argument, which usually cannot be dropped in their transitive active counterpart, is optional, usually marked with oblique case, and in certain antipassives like the K'Iche', Inuktitut or West Greenlandic ones, does not agree with the verb anymore. As established in the previous section, attempts to account for these differences of passives and antipassives by deriving them from their transitive active counterparts could not be done in a fully convincing and uniform way yet. By viewing the Case assignment problem as less of a problem and more of a solution, I am arguing for a non-derivative analysis of passives and antipassives that is based on the parallel properties of passives, antipassives and intransitives.

In contrast to passives and antipassives, the Case assignment by intransitive verbs is established better, starting with Burzio's generalization (8), according to which nominative/absolutive Case is trivially expected for unaccusatives.

(8) *Burzio's Generalization* (Burzio, 1986:178)

Only verbs that assign a θ -role to the subject can assign accusative Case to an object.

Marantz extends this observation, noting that if there is only one base-generated argument, it has to receive nominative or absolutive Case, as accusative and ergative are only assigned opposing a second argument (Marantz, 1991:24). If one now reconsiders the observed case marking in passives and antipassives, there is another parallel to intransitive verbs: the relevant arguments have the same Case as one would expect from the argument of an intransitive verb.

With Burzio's Generalization and Marantz' theory of dependent case at hand, case marking on the main argument in passives and antipassives is not problematic anymore, but can be explained trivially. That is, if one takes the observed patterns as evidence that passives and antipassives are not derived from a transitive structure, but rather resemble the structure of intransitives. This conclusion raises the question how to account for the second argument in passives and antipassives, which is at least semantically salient if not realized overtly.

Given the fact that the second argument usually realizes oblique case and in many languages is part of something like a by-phrase, it will be assumed that it is part of an optional adjunct PP³ where it receives case from P, as has been suggest before, e.g. by Alexiadou et al. (2018). For those examples which have no overt P, it must be assumed that there is an underlying covert PP anyway, following the Invisible Category Principle ((9); Emonds, 1987).

3 Due to limited space, the exact syntax of the by-phrase cannot be treated in this paper beyond case assignment. It will be assumed that adjuncts are by definition optional and that the argument can be realized whenever there is a pragmatic reason for it.

(9) *Invisible Category Principle* (Emonds, 1987:615)

A category may remain empty throughout the syntactic derivation, if its features are alternatively realized on a phrasal sister.

With the Invisible Category Principle in mind, one can account for case assignment on the second argument, even when it does not appear with an overt P, such as the patient in the Inuktitut antipassive (example (3b)). The NP 'polar bear' is part of a PP, and receives oblique case from the covert P. The PP analysis can also account for those examples in which the suppressed argument exhibits the accusative, such as example (4b). As the German example in (5) showed, accusative marking in by-phrases does not arise from structural Case, but is inherent to P.

In some passives, the patient argument appears with quirky case, such as in example (10). The phenomenon can be accounted for with the hierarchy of case realization (Marantz, 1991), which orders lexical case over dependent, unmarked and default case. As a result, quirky dative, which is generally taken to be inherent to the verb, is preferred over the default nominative at morphological spell-out.

(10) *German*

Dem	Kind	wird	(von mir)	geholfen
DET.DAT	child.DAT	AUX	(by 1SG.DAT)	help.PTCP

'The child is helped (by me).'

The proposed analysis results in the following derivation: the verb in passives and antipassives only selects one argument. Given the respective θ -positions involved, this results in structures that look like unaccusatives for passives and like unergatives for antipassives. This, however, does not mean that the verb involved is lexically intransitive, which will be further discussed in the following section. The second, semantically salient argument is part of an adjunct PP and receives case from P.

3.2 Accounting for Semantically Transitive Verbs in an Intransitive Structure

The proposed analysis leaves the question why and how verbs that are usually transitive only select one argument. Instead of the analysis as an optional adjunct, one could still assume that something blocks the slot of the suppressed argument and prevents its normal realization, similar to the case absorption analysis described above. For passives, something would need to block Spec, vP as the external agent argument is missing. For antipassives, the blocking would need to happen before v merges and checks Case of the internal argument. In previous analyses, a functional Voice head was supposed to account for the properties of non-active voice. However, Voice only merges with an already assembled vP, which means that it cannot alter or influence the structure within the vP anymore, in accordance with the Extension Condition (Chomsky, 1995). This is also the reason why any approaches that delete the second argument should be rejected. The entire issue of altering the structure in syntax vanishes if one assumes that the verb only selects one argument from the beginning.

The ideal of syntactic uniformity (Chomsky, 2001) already suggests that the alteration of the verb's selectional behaviour should not take place in syntax, as that would require language-specific syntactic rules. In addition and more specifically, the Lexicon Interface Guideline ((11); Reinhart & Siloni, 2005), prohibits any operation that would alter the θ -grid of a verb in syntax.

(11) *The Lexicon Interface Guideline* (Reinhart & Siloni, 2005:403)

The syntactic component cannot manipulate θ -grids: elimination, modification, and addition of a θ -role are illicit in the syntax.

The above observations lead to the conclusion that valency reduction cannot be motivated in syntax, but that syntactic structure only reflects reduced valency. In turn, the phenomenon must be traced back to the lexicon. Alexiadou et al. (2018) assume that selectional specifications of the verb in the lexicon determine with which kind of Voice the vP merges. However, this approach would predict several lexical entries for semantically identical verbs, which is inefficient. Instead of an active, passive and antipassive version of the same verb it would be more efficient to have a valency reducing operation that can apply to whichever verb allows it. Which verbs allow (anti-) passivization could e.g. be specified in their lexical features. Assuming that an (anti)passivized verb undergoes a valency changing operation, but could be lexically transitive, could also explain why the implicit agent/patient can still be interpreted, and also allows to select the correct kind of argument in case the second argument is optionally realized. This approach however requires a concept of a non-static lexicon, as assumed e.g. by Reinhart & Siloni (2005), in which such operations can apply to lexical entries before any syntactic structure is built.⁴ Processing economy further supports this view: it would make sense to eliminate the respective θ -role from the θ -grid before syntax, so that the structure never has to be built, and no additional syntactic operations are required to alter the transitive active structure. It is subject to further research how this idea can be operationalized.

4. Conclusion

The present paper critically reviewed previous accounts of passives and antipassives that derive them from their transitive active counterparts. However, none of the approaches succeeded in uniformly explaining the initially presented case marking patterns. In combination with parallels to intransitives, these patterns instead deliver evidence for a non-derivational approach: passives behave like unaccusatives in terms of θ -roles and case marking, antipassives like unergatives. The suppressed argument can be optionally added in an adjunct PP, where it receives inherent case from P. This explains why the suppressed argument usually realizes oblique case. It was

4 Given that this concept is rather unconventional in Generative Grammar, Reinhart & Siloni's (2005) account should be understood as just an example already going into this direction. As their proposal still differentiates between language-specific rules, it should only be taken as a direction-giving indication, not as the ultimate solution to the problems discussed in this paper. The exact algorithm and potential language-specificity or universality of such an operation are yet to be established.

concluded that active, passive and antipassive verbs may originate from the same lexical entry for reasons of efficiency in the lexicon, but that valency reduction applies before the start of a derivation in order to avoid building unnecessary structure. Due to the limited scale of this paper, some details of the (anti)passive syntax, such as deriving the verbal inflection or the exact properties of the by-phrase, must remain for further research. In conclusion, the present paper can be viewed as a first step towards a unified account of passives and antipassives across alignment systems that keeps the required syntactic operations at a minimum and thus ensures simplicity. ■

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