

Passives of Unergatives and Ergative Marking

1 Introduction

In this paper we will propose an analysis for the passivization of unergatives in Germanic and Romance languages. We will then show that the hypothesis of a syntactically projected null object in the passives of unergatives opens the way towards a new explanation for the Ergative marking of the subjects of unergatives in the aorist in Georgian. Two distinct passive-interpreted forms will be examined, participle(-based) passives and SE-passives. These two configurations are clearly different both morphologically and regarding the syntactic constraints they are subject to. In order to capture those differences we argue that passives should not be directly encoded in a designated Voice_{pass(ive)} functional head but should be analyzed as emerging from the combination of independent components that may have different syntactic sources. We will propose that passive interpretations arise due to phi-features that are inherently valued for the phi-features of the Initiator, notated $\{\phi:\phi_{Init}\}$. This feature-valuation is however not the exclusive privilege of a particular functional category (as in approaches that tie passive to a dedicated Voice projection), but can appear either on v_{cause} or on Tense (for participle passives and SE-passives, respectively). This differentiated analysis of participle-based and SE-passives will be shown to underlie not only those passives in which the Theme surfaces overtly but also passivized unergatives. Following Postal & Perlmutter (1983) and Dobrovie-Sorin (1986, 1994), we will assume that a null cognate object is projected in the object position of passive unergatives.

2. Participle Passives of Unergatives: previous literature

Participle passives are productively used with unergatives in some languages, e.g., German, whereas that combination is ruled out in other languages, e.g., Romanian:¹

- (1) Ge. Auf der Party wurde bis spat in die Nacht getanzt.
on the party PASS.AUX.3SG until late in the night danced.past.prt
'At the party, there was dancing until late at night.' (Literally, 'it was danced')
- (2) Sp. *En la fiesta fue bailado hasta tarde.

Other languages like German that allow auxiliary+participle passives of unergatives are the Scandinavian languages (Vikner 1995), while other languages banning unergatives from the auxiliary+participle passive like Romanian are the Romance languages (to the exception of French) and English.

In analyses that take subject-demotion to be the central characteristic of passives this contrast is explained either in terms of variation of the case-assigning properties of unergative verbs in a language (see Jaeggli 1986) or to a parametric variation in the case-properties of the passive morpheme (see Baker 1988).

¹ The (im)possibility of passivizing unergatives is parallel to the (im)possibility of passivizing transitives used intransitively.

- (3) a. Jaeggli (1986): In some languages but not in others, unergatives assign accusative.
 b. Baker (1988): Some passive morphemes but not others require case.

The parametrization proposed by Jaeggli (1986) cannot account for the fact that different passive constructions within a single language can vary with respect to impersonal passivization: the unergative verbs of a language are expected to behave uniformly. This prediction is not borne out: in Spanish, the reflexive passive admits unergative verbs while the *ser*+participle passive does not (see Dobrovie-Sorin 1994). The parametrization of the passive morpheme as in (3) essentially marks passive morphemes in the lexicon as allowing or rejecting an impersonal variant. This is a mere encoding of the observation itself.

Dobrovie-Sorin (1986; 1998) proposes an alternative analysis that seeks to link the possibility of impersonal passives to the independently observable syntax of impersonal configurations, i.e. configurations in which the subject occurs in postverbal positions. Auxiliary+participle-passives are not parametrized, they uniformly apply to verbs that project a syntactically transitive structure, in which the object position is either filled by an overt DP or by a dummy *pro*. This analysis is similar to Perlmutter and Postal's (1984) proposal in postulating a dummy object and therefore views a transitive input as a defining property of passive constructions. Unlike the analysis by Perlmutter and Postal (1984), however, the analysis proposed by Dobrovie-Sorin (1986; 1998) does not assume object promotion to the syntactic subject position of canonical actives. Instead, impersonal passives are analysed as structures with a dummy *pro* licensed in a VP-internal (low) subject, a position that is widely associated with indefiniteness constraints.

In what follows we pursue this analysis as it links the possibility of passivizing unergative verbs to the independently observable syntax of VP-internal subjects in the languages under analysis.

3. Unergative passives: Case assignment and cognate objects

Following Hale and Keyser (1993) unergatives are analyzed as hidden transitives.² For passive unergatives, Dobrovie-Sorin's (1986, 1998) hypothesis is that a null pronoun *pro* is necessarily projected in the object position. This proposal corresponds to the 'null hypothesis', according to which passivization of transitives and unergatives alike involves the projection of the internal argument and an external argument that is either implicit or expressed as an adjunct (see *by*-phrases). According to Dobrovie-Sorin (1998), passive unergatives have a quasi-argumental *pro*. The (in)acceptability of passive unergatives depends on whether a *pro* in the VP-internal position can be interpreted as quasi-argumental (rather than as a fully referential null subject). And this in turn depends on the type of impersonal configurations

² The fact that unergatives can project a transitive structure with a direct object is evidenced by examples with cognate objects (i-a) and spurious reflexives in resultatives (i-b) (Levin & Rappaport 1995).

- (i) a. John lived an happy life.
 b. She danced herself into a trance.

The fact that cognate objects can be projected does not imply that they have to be projected – like lexical cognate objects, the abstract cognate object can be omitted. As pointed out by Kayne (1975), unergatives do not pattern with transitives in the marking of the agent in French *faire* causatives: the subject of unergatives appears without a preposition (ii-a) while the subject of transitives appears with the preposition *à* (ii-b)

- (ii) a. Jean fait travailler **Paul**.
 b. Jean fait manger des pommes **à Paul**.

(configurations with postverbal subjects) a given language has.

In languages like German and the Scandinavian languages, passive unergatives are available

- (4) a. dass getanzt wurde. German
b. at der er blevet danset Danish (Vikner 1995:209)
 that expl is pass danced was

According to Dobrovie-Sorin (1998), these examples are well-formed because (i) unergative verbs universally allow the projection of a transitive structure and (ii) the languages in question have syntactic structures that allow subjects in the object position inside the VP. Evidence that the object in passives in German and the Mainland Scandinavian languages need not be promoted from its VP internal position comes from personal passives. In German in double object constructions the unmarked word-order in passives is dative>> nominative, suggesting that active word order is preserved (5) (Haider 1990). In Danish the object in personal passives in an impersonal construction is in post-verbal position, like the object in the active (6). And in Swedish, in personal passives in the impersonal construction the object is in the post-verbal position (like the object in the active) and the participle is in the non agreeing form, suggesting no movement of the object has taken place (7).

- (5) German: Ich habe gehört,
 I heard
a. ok wie einem Ritter ein Einhorn beschrieben wurde.
 how indef.sg.dat knight indef.sg.nom unicorn described werden.past3sg
b. ? wie ein Einhorn einem Ritter beschrieben wurde.
 how indef.sg.nom unicorn indef.sg.dat knight.dat described werden.past3sg.
 'I heard how a unicorn was described to a knight.'

- (6) Danish: at er blev spist et aeble
 that there was eaten an apple (Vikner 1995:202:ex 80e)

- (7) Swedish
a. Det blev skjutet /*skjutit en älg.
 expl PASS shot.NTR /shot.0 a moose
 'There was shot a moose.' (ex (68) Christensen et Taraldsen (1989, p.71))
b. Lejonet blev *skjutit/ skjutet.
 lion-DET PASS shot.0 / shot.NTR.
 'The lion was shot.' (ex (61) Christensen et Taraldsen (1989, p.70))

Turning now to the languages that ban passives of intransitives (see (2)) there is evidence that the cognate object of participle passives cannot stay in object position and has to move to a higher subject position, thus blocking the cognate object/quasi-argumental interpretation of the null object. The example in (8) shows that in Spanish, bare plurals are not allowed in the post-verbal subject position of *ser* + participle passives:

- (8) Spanish
 En el barco *fueron encontradas armas.
 in the ship were.3PL found.PCTP.FPL weapons.FPL

‘Weapons were found on the ship.’ (Mendikoetxea 1999, 1675).³

Bare plurals are known to be 'pseudo-incorporated', which according to Massam's (2001) definition means that they cannot move out of their VP-internal base position. Given this hypothesis, the unacceptability shown in (8) can be explained if we assume that the postverbal position of participle passives is VP-external in Spanish.

Similarly, English does not allow passives of unergatives and doesn't allow licensing of the underlying object of passives in object position:

- (9) a. *There was danced.
b. *There was/were baked **cakes** for Kim's birthday.

As a result, if the underlying object cannot stay in object position for syntactic reasons, passive forms of unergatives are either disallowed or interpreted as involving a transitive passive with a syntactically promoted referential object that carries the Theme role (10)

- (10) (Su glamour conquistó a los sectores mas altos de la sociedad y) **fue bailado** en casi todas las capitales europeas.
was.3sg danced in almost all the capitals European
‘Its glamour conquered the highest echelons of society and it [the tango] was danced in almost all European capitals.’ <https://buenosairesmiamor.wordpress.com/tag/carlos-gardel/>

4. The abstract syntax of participle passives

We have so far argued that the hypothesis of a null *pro* in the object position of passive unergatives allows us to analyze the crosslinguistic variation of unergative passives as being related to the way in which DPs in postverbal positions are syntactically legitimated following Dobrovie-Sorin (1986, 1998). The conceptual advantage is that a uniform analysis of passive configurations is possible. This analysis shares with Perlmutter & Postal the assumption of the projection of a null dummy object in passives but it differs from this analysis in that object promotion to subject cannot involve movement to the subject position but licensing of the null object in its VP-internal position is crucial to allow the required non-referential/quasi-argumental interpretation of the postulated null cognate object for unergative passives.

The analysis of passives of unergatives involving a null cognate object without promotion to a higher subject position contrasts with the prevalent analysis of passive unergatives as evidence against analyzing the passive as necessarily projecting the object (see Comrie 1977, Brüning 2013:35-6). In lexical and GB approaches passives were defined as involving the suppression/absorption of the external th-role. In approaches that assume functional heads such as little *v* or Voice, passives are taken to involve a Voice_{passive} head, which is responsible for adding the external th-role. In most of these ‘Voice-based’ accounts, the properties of

³ Reflexive passives contrast with *ser*-passives with respect to bare NP subjects (Mendikoetxea 1999, 1675): the *se*-passive allows bare plural post-verbal subjects

- (i) Sp. En el barco **se** encontraron **armas**.
in the ship REFL found.PFV.3PL weapons.FPL
‘Weapons were found on the ship.’ (Mendikoetxea 1999, 1675).³

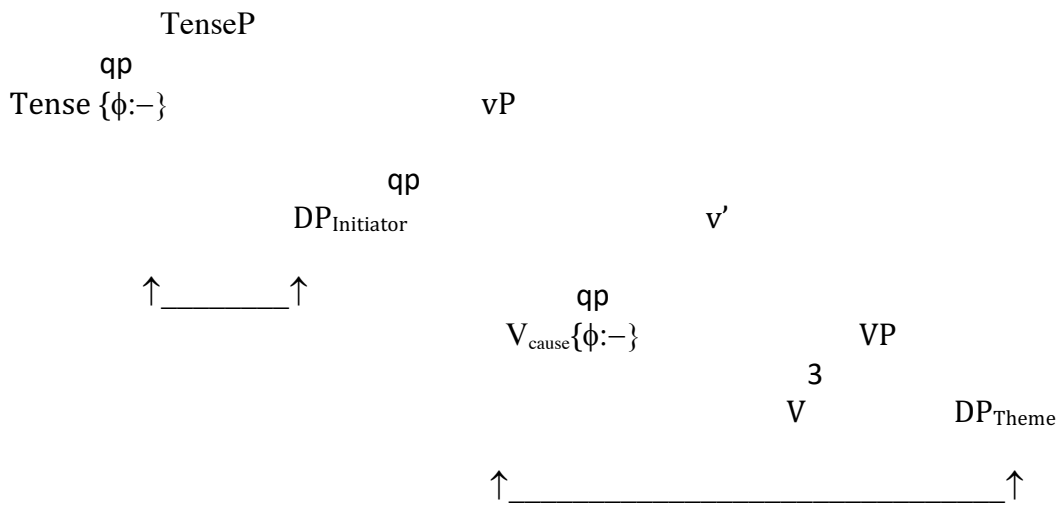
Voice_{passive} are disconnected from its Case-assigning potential.

In this section we will propose a new minimalist account of participle passives.

4.1 Little v and Voice

We will assume the AGREE relation as defined in Pesetsky & Torrego (2004): the functional categories on the verbal spine, little v and Tense, enter the derivation with unvalued ϕ -features, which get valued via the AGREE relation with a DP, which is thereby 'Case-checked'.

(11) John saw Mary.



In this representation, the unvalued ϕ -features on Tense and Voice (notated $\phi:-$) enter AGREE relations with the DP_{Initiator} and the DP_{Theme}, respectively, thereby inheriting their phi-features and at the same time Case-checking those DPs. The double arrows indicate feature-inheritance (from the valued features of the DPs to the unvalued features of Tense and Voice) and Case-checking (in the reverse direction).

Most of the current literature assumes an additional functional head, Voice on top of vP. This label was introduced by Kratzer (1996) as a mnemonic of the fact that the relevant functional head contributes the external argument -- Kratzer does *not* assume that Voice is a head that is distinct from Chomsky's (2001) little v. In contrast, most of the subsequent literature has argued in favor of a 'layered structure' of the vP domain, which means that 'agentive' verbal structures (active and passive forms of transitives, active forms of unergatives) have a Voice head in addition to little v: little v is taken to be responsible for verbalization/cause semantics, while Voice would be responsible for the introduction of the external argument (Initiator henceforth). This hypothesis finds support in languages in which the morphology indicates that transitive morphology embeds intransitive morphology (see Sundaresan & McFadden's (2009) argument that gemination in Tamil is to be analyzed as a TR little v that takes and INTR little vP as a complement). There is however no reason to assume that in Germanic or Romance languages the representation of active transitives is more complex than shown in (11). In fact, adding Voice between Tense and vP loosens the correlation between Accusative Case assignment and introduction of the Initiator, which we

take to be correct for Nominative-Accusative languages which do not morphologically distinguish between unaccusatives/anticausatives, unergatives and transitives.

Analyses postulating Voice in addition to little *v* are prompted by a view of the syntax-semantics interface according to which the introduction of agentivity would require a dedicated head in *all languages* and in *all configurations*, e.g., active transitives and unergatives, participle passives, SE-passives, synthetic passives, s-passives (Swedish, Norwegian), non-active Voice configurations. As we will show, this can be shown to be false even if we restrict our attention to well-studied languages (Germanic, (Balkan) Romance). One of the main points of this article is to demonstrate that the syntactic representations of participle passives and SE-passives are different, and should not be assumed to rely on a uniform structure that contains a passive Voice head as a crucial ingredient.

The introduction of the Agent is radically different in actives and passives: in actives the Agent is syntactically projected into the subject position, whereas in passives the Agent is either implicit or optionally realized as an adjunct (see Legate 2012 for an array of syntactic diagnostics that the agent-phrase in Acehnese is an adjunct). Analyses relying on Voice assume that Voice is the locus of agentive interpretation found with both actives and (various varieties of) passives. The distinction between $\text{Voice}_{\text{act}}$ and $\text{Voice}_{\text{pass}}$, merely encodes the observed difference in the syntactic realization of the agent. In contrast to this literature, we assume that for the languages under discussion little *v* can both ‘verbalize’ the root, introduce causation and allow the external argument to be merged into its Spec, as in Chomsky (2001:6). This means that at least for actives in at least certain languages, we do not need a head with the dedicated role of introducing the agentive semantics (with or without a lexical agent). We will assume a single projection *v* (for little *v*), that can be specified for syntactic features (notated using subscripts e.g., v_{cause} OR v_{result}).

4.2 The agentivity of participle passives

In tensed clauses, participle passives require support from an auxiliary (BE in English and major Romance languages, *werden* ‘become’ in German), which can be viewed as the realization of a functional head dedicated to introducing the Agent. The past participle is resultative, but does not imply agentivity in and of itself.⁴ This explains why participles can also have stative uses (frequently referred to as ‘adjectival participles’) and moreover participate to forming periphrastic past tenses:

- (12) a. The dog is already combed.
b. The dog is being/was combed.
c. Mary has just combed the dog.
d. (The vase broke.) Kim picked up the parts of the broken vase.

These well-known data show that past participles are not in and of themselves ‘passive’: past participles do not project the external argument but the agentive meaning distinctive of

⁴ Note that unlike the auxiliary *werden* the copula *werden* does not imply agentivity: with adjectives as in (i) copula *werden* has anti-causative readings:

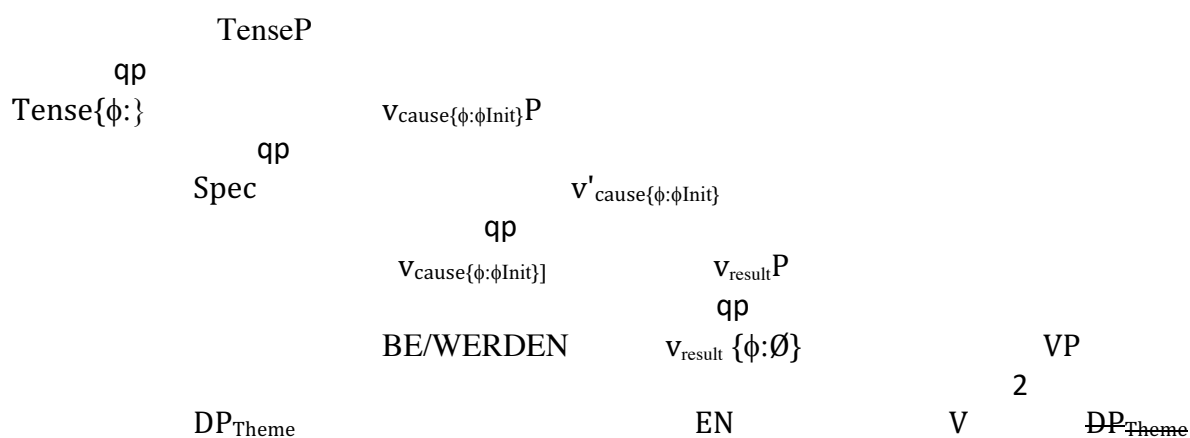
- (i) a. Kim wurde rot
Kim became red ‘Kim blushed’ b. Kim wurde krank
Kim became sick ‘Kim fell ill.’

passives is contributed by an independent head, realized as an auxiliary.

Given the AGREE implementation of Case-assignment briefly presented in §4.1, the inability of participles to assign Accusative Case can be captured by assuming that past participle morphology (realized on little *v*) is specified as $\{\text{u}\phi:\emptyset\}$, i.e., as having no unvalued ϕ -features. Before adding further structure (e.g., auxiliaries) past participles are stative, and as such they can be viewed as realizing a stative little *v*, notated v_{result} in (13).⁵

The eventive change-of-state meaning participle passives is contributed by the passive auxiliary. This is particularly clear in languages as German, where the passive auxiliary *werden* is distinct from the copula *sein* ‘BE’. In other languages, e.g. French, the passive meaning of the BE + participle combination depends on Tense/Aspect specifications,⁶ which cannot be addressed in the limits of this article. For concreteness, we will assume that the eventive interpretation of BE+participle relies on a functional head v_{cause} where the auxiliary is introduced, taking $v_{\text{result}}\text{P}$ as a complement (see (13)). Arguably, this v_{cause} also contributes the implicit external argument of participle passives. We will assume that the auxiliary of participle passives is inserted under a v_{cause} that carries the phi-features characteristic of the theta-specification ‘Initiator’ – subsuming agent and causer - which we notate as ϕ_{Init} . In contrast, the copula *be* /*Ge. sein* is not introduced under v_{cause} and as such does not introduce an initiator.⁷

(13) Passive sentences (with past participles)



⁵ This brings to mind Ramchand's three-way partition of the verbal functional domain, into Causation(initiator), Process (undergoer) and Result (resultee). Making use of these notions and assuming that some of them correspond to functional heads does not mean that we adopt Ramchand's system as it stands. One departure that is crucial for this article is that Initiator meaning is not due to the projection of some functional head specialized for introducing the Initiator. Instead, we assume that the Initiator of actives is inserted in the Spec of a unique verbal head 'little *v*' whereas the Initiator of participle passives is contributed by the $\{\phi:\text{Init}\}$ specification on a functional head that contributes causation. Another crucial difference from Ramchand's system and ours is that we keep track of Case-assignment, which Ramchand ignores, as acknowledged by herself.

⁶ As a brief illustration, note that *John is combed* can only have a stative reading, whereas the progressive version, *John is being combed*, is necessarily eventive.

⁷ This assumption is inspired by Legate's (2014) analysis of Acehnese passives. However, the correlation with lack of Accusative is not assumed by Legate nor by Legate et al. (2020). Wurmbbrand and Shimamura (2017) and Dobrovie-Sorin (2021) are among the few authors who have so far adopted Legate's proposal. The implementation proposed here differs from these previous accounts in various respects, both notational and content-wise.



Combined with the theory of AGREE, the feature specification of the two verbal heads assumed here derives as a consequence Burzio's generalization (the correlation between absorption of the external role and suspension of the assignment of Accusative case): since the features on the verbal head are non-existent (see $\{\phi:\emptyset\}$) or already valued (see $v_{\text{cause}}\{\phi:\phi_{\text{Init}}\}$), no AGREE relation can be established between these heads and DP_{Theme} and correlatively DP_{Theme} cannot be assigned Accusative Case. This implies that DP_{Theme} has to be licensed by an alternative mechanism. In (13) the relevant mechanism is movement from the VP-internal position into the first available Spec, which we assume to be the Spec of the auxiliary little v^8 . From this position, DP_{Theme} enters an AGREE relation with Tense, thereby valuing the unvalued feature of Tense and getting Case-checked at the same time. Since Spec,vP is filled with DP_{Theme} , the EA cannot be inserted in Spec,vP. Depending on the language, there is an alternative legitimation with nominative assigned to the DP VP internally. Even in such configurations the EA is banned, since its being inserted in Spec,vP is would block AGREE between Tense and DP_{Theme} .

At this point it is worthwhile comparing participle passives with active verbs. In both structures, eventivity is assumed to be contributed by a functional head that introduces causation (v_{cause}). The features of this head are however different in the two configurations: intrinsically valued $\{\phi:\phi_{\text{Init}}\}$ in passives vs. unvalued $\{\phi:-\}$ in actives, with the consequence that the Initiator is implicit in passives but syntactically projected in the active. Note moreover that depending on whether v_{cause} is specified as $\{\phi:\emptyset\}$ or as $\{\phi:-\}$, it takes $v_{\text{result}}\text{P}$ as a complement or directly combines with the root. In cases where v_{cause} specified as $\{\phi:\phi_{\text{Init}}\}$ combines directly with the root we obtain a synthetic passive verb form.

The system proposed here differs from other 'Voice'-based accounts insofar as the correlation between the postulated features of the functional heads and their Case-assignment potential are correlated. In addition to the unvalued features of mainstream minimalism we have proposed a ϕ_{Init} feature, which encodes implicit Initiators.⁹

4.3 Participle Passives with unergatives

In contrast with English, German and the Scandinavian languages allow participle passives of unergatives (see (4)a/b).

We propose that passives of unergatives project a null cognate *pro* in object position (see section 3). As the cognate *pro* is referentially deficient, it is incompatible with DP movement out of VP and has to be licensed *in situ*, resulting in the structure in (14). As shown in (5) / (6), German and Danish participle passives allow the licensing of the lexical Theme DP in VP internal position. In the parallel structure with a cognate *pro* in object position we assume that the same licensing mechanism legitimates *pro* in situ, rendering the structure (14) well-

⁸ We think this is the simplest solution: whenever several little v 's occur on the clausal spine, only the highest one projects a Spec position. Various other technical alternatives are possible (Spec positions for all of the functional heads, or a Spec position for the lower but not for the upper head), which are probably compatible with our main claims.

⁹ This leaves room for a third possibility, absence of phi-features (which we will notate as $\{\phi:\emptyset\}$, which according to several authors (Schäfer (2008), Alexiadou et al. (2015), Wood (2015)) characterizes anticausatives (see § 5.2 below).

formed.

According to this analysis, unergative passives are structurally parallel to passives of transitives with a lexical Theme DP licensed in object position (5) / (6). The bracketed structures given in (14)a-b, which correspond to the tree representation in (13), differ from each other only by the presence of *pro* vs. overt DP in the object position:

- (14) a. Participle passive of an unergative V (cf. ex. (4)a)
 $T_{\{\phi:--\}} [V_{\text{cause}\{\phi:\phi\text{Init}\}} [V_{\text{result}} [VP [\textit{pro}_{\text{cog}} \quad V]] \quad \textit{getantzt}] \textit{wurde}$]
- b. Participle passive of a transitive V (cf. ex. (5))
 $T_{\{\phi:--\}} [V_{\text{cause}\{\phi:\phi\text{Init}\}} [V_{\text{result}} [VP [\textit{ein Einhorn} \quad V]] \quad \textit{beschrieben}] \textit{wurde}$]

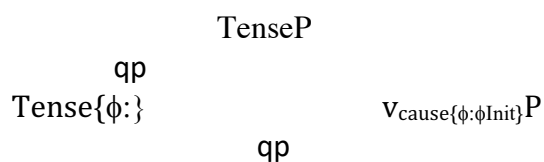
Let us now turn to those languages, e.g. Romanian, in which participle passives with unergatives are unacceptable. In order to explain this impossibility Dobrovie-Sorin (1986, 1994) builds on the easily observable fact that the use of a participle passive with an unergative is acceptable if the null subject is interpreted as referential but completely unacceptable, viz. uninterpretable by Romanian speakers, as a passive unergative, i.e., as involving a quasi-argumental underlying null object.

- (15) a. Ieri la petrecere invitatii au dansat mult.
 Yesterday at the party the guests danced a lot.
 b. Ieri la petrecere a fost dansat mult.
 Yesterday at the party was danced a lot.
 OK 'Yesterday some (contextually retrievable) dance was danced a lot'.
 * 'Yesterday there was a lot of dancing going on'.

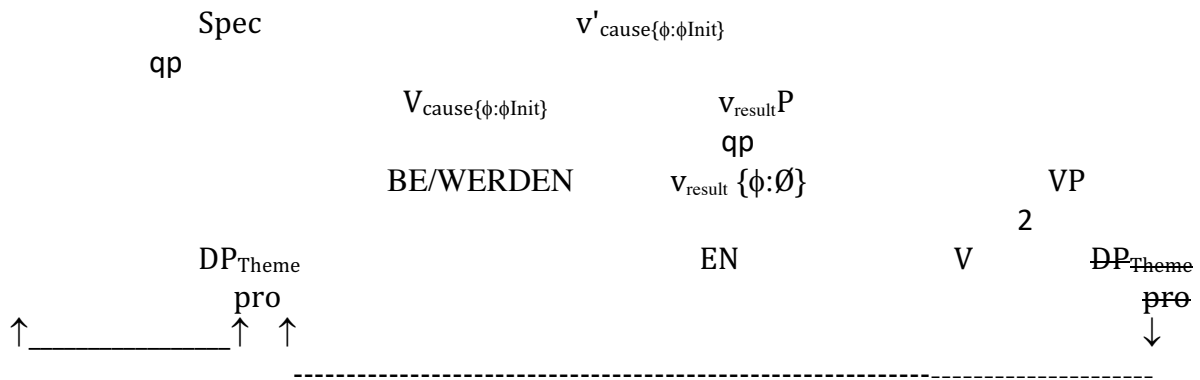
The same observation extends to 'intransitively used' transitives. Thus, the interpretation of *Ion a mâncat mult* 'Ion ate a lot' involves a prototypical object, whereas its passive variant, if at all interpretable, involves a contextually retrievable referential object. The parallelism between the passivization of unergatives and the passivization of transitives in intransitive uses is evidence against explanations that attribute the (im)possibility of passive unergatives to the hypothesis that unergatives differ from one language to the other regarding the possibility of assigning Accusative Case.

Turning now to the explanation of the facts, Dobrovie-Sorin's (1986, 1994) proposal is that (i) in Romanian (and arguably in other null subject languages with VSO word order) a postverbal DP in a configuration with a passive participle cannot be assigned Nominative in the VP-internal position,¹⁰ but must move to Spec,_{V_{cause}} and (ii) a moved *pro* is necessarily interpreted as referential rather than as a quasi-argumental/prototypical object.

- (16) Participle passives with unergatives in Romanian



¹⁰ Empirical evidence in favor of this assumption is related to examples built with BPs in Spanish (see example (8) in section 3 above). The Romanian counterparts of such examples seem acceptable in Romanian, but this could be due to particular properties of the Romanian information structure.



5. Romance SE-passives

The existence of several types of passives across languages and even within a single language is well known. Thus, Romance languages have passives formed with the clitic SE/SI (SE-passives henceforth), in addition to participle passives. In the relatively recent literature on VOICE, it is assumed that all syntactic passives rely on a common structure involving Voice_{pass} (Alexiadou et al 2017). This uniform analysis of the two passives cannot account for a striking contrast regarding the (im)possibility of combining with unergative verbs, which is moreover reversed from one language to the other (§ 5.1). In order to understand this contrast and the crosslinguistic variation, we will propose (§ 5.2) an analysis of SE-passives that is clearly different from the analysis of participle passives in §3. In §5.3 we show that the proposed analysis extends to unergative passives provided that we assume that a null cognate object is merged in the object position. Based on this analysis we explain the (im)possibility of unergative SE-passives as following from constraints on the (im)possibility of a non-referential interpretation of that null object.

5.1 SE-passives with unergative verbs: the data

SE-passives with transitive verbs are very colloquial in all Romance languages:

- (17) a. Las paredes se pintaron con óleo en color vainilla.
The walls se painted with oil in colour vanilla
- b. en 1985 se compraron obras para el Museo del Prado por valor de ...US\$
in 1985 refl buy.pfv.past.3pl works for the Museo del Prado for a value of
(attested examples CREA corpus)

The existence of SE-passives built with unergatives is difficult to establish for languages such as Italian or Spanish, in which SE is ambiguous between an Accusative marked clitic and a (Nominative-marked) impersonal subject clitic,¹¹ which can combine with the copula (see (18)a). The unacceptability of (18)b indicates that unlike Italian, Romanian does not have

¹¹ As demonstrated by Dobrovie-Sorin (1994, 1998), the existence of unergative SE-passives can be demonstrated for Italian and Spanish non-finite clauses: the relevant data are carefully described by Cinque (1988) in terms of a [+arg] Nominative SE and reanalyzed by Dobrovie-Sorin (1998) as involving an (Accusative-marked) SE-passive.

Nominative SE:

- (18) a. It. Non si e mai contenti.
 not SI is ever satisfied 'One is never satisfied.' (Cinque 1988:522, 1e)
 b. Rom.*Nu se este niciodata mullumit.
 not SI is never satisfied 'One is never satisfied.' (D-S 1998 :405, 5a)

Given the unacceptability of (18)b, the SE that shows up unergatives, e.g. (19), cannot be analyzed as an impersonal subject clitic (see SI in (18)a)

- (19) S-a dansat mult la petrecere asearà.
 SE-has danced a lot at party last evening
 'There was a lot of dancing going on at the party yesterday evening.'

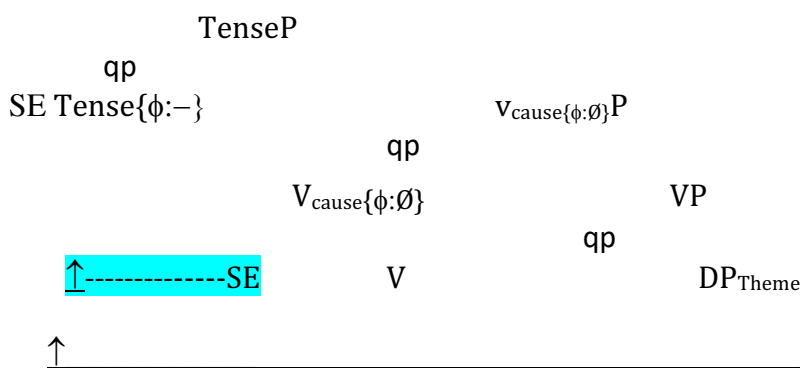
Dobrovie-Sorin's (1986, 1994, 1998) proposal was that examples of the type in (19), built with unergative verbs, were to be analyzed as involving a passive SE.

5.2 Analysis of SE-passives

Romance SE-forms are syncretic, expressing anticausativity, reflexivity, middle and passive meanings. As usual, syncretism can be analyzed as involving a common core component, which in this case is assumed by most authors to be anticausativity.

According to Schäfer (2008), Alexiadou et al. (2015), Wood (2015) a.o., anticausatives rely on a little *v* that contributes eventive/causative meaning, but no (syntactically realized or implicit) external argument. These authors capture this descriptive characterization by assuming that the little *v* that underlies anticausatives represents expletive Voice, i.e., it lacks ϕ -features. We will take up this view by assuming that the v_{cause} underlying anticausatives is marked as $\{\phi:\emptyset\}$. Unlike the authors just cited, we will *not* assume that anticausative markers, e.g., SE in Romance, occur in Spec,Voice. We will instead propose that SE is inserted under $v_{\text{cause}\{\phi:\emptyset\}}$ itself.¹²

- (20) Anticausative SE with postverbal subjects



¹² In the preminimalist framework, which lacked little *v*, Kayne (2000) proposed that SE is base-generated (externally merged) in Tense. Kayne (2000) assumes this hypothesis for all object clitics in Romance. This view is most plausible for SE, the pronominal analysis of which is debatable (see Burzio 1986, who treats it as an 'affix'): see in particular the fact (established by clear tests) that the postverbal subjects of SE-verbs sit in the direct object position. Compare *sich*-verbs in German, which do not allow their postverbal subjects to occupy the direct object position.

Since $v_{\text{cause}\{\phi:\emptyset\}}$ lacks unvalued ϕ -features, DP_{Theme} cannot get Accusative Case. It will instead enter a downward AGREE relation with the unvalued ϕ -features of Tense, thereby being assigned Nominative Case. Here and elsewhere we assume that the functional heads on the verbal spine do not project Spec positions unless required.

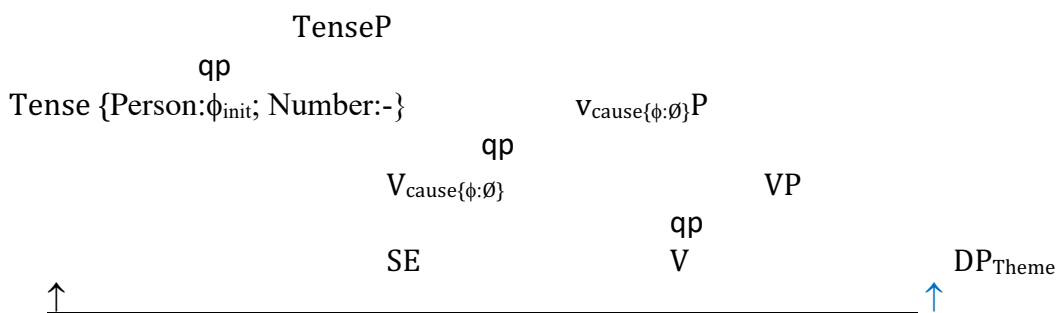
SE-passives differ from anticausatives by their agentive interpretation. The question is what is the locus of a SE-configuration that is responsible for agentivity. The answer given by most of the minimalist proposals that assume that the Initiator is *not* syntactically projected in a subject position¹³ is that the Initiator of passives is introduced by a ‘Voice_{passive} head’ (Schäfer 2008, Alexiadou et al. 2015, Wood 2015, Legate et al. 2020). According to this type of analysis, morphosyntactically different passives (participle passives, SE-passives, passive interpretation of non-active/middle Voice morphology) are basically alike in ‘abstract’ syntax, which makes it impossible to explain the differential behavior with respect to (im)possible combination with unergative verbs.

The analysis to be proposed below aims at distinguishing between the abstract syntactic representations of SE-passives and participle passives, taking into account the difference in morphosyntactic make-up, in particular the difference between presence/absence of an auxiliary.

In Section 4.2 above we have proposed a ‘split vP’ representation for participle passives, which is supported, viz, forced on us, by the presence of the auxiliary: past participle morphology is inserted inside a v_{result} head, distinct from the v_{cause} head in which the participle morphology is introduced and which is also responsible for agentive meaning.

Given the synthetic form of SE-passives, the null hypothesis is that little *v* is not split, which means that the agentive meaning cannot arise vP-internally, due to a dedicated functional head. Following Dobrovie-Sorin (2021) we will assume that the feature $[\phi_{\text{init}}]$ introducing the implicit Initiator can value inherently/directly not only the Person-features of v_{cause} (see the analysis of participle passives given in section 4.2., the representation in (12), where the feature $[\text{Person}:\phi_{\text{init}}]$ is on the auxiliary in v_{cause}) but also the the Person-features of Tense. Regardless of whether $[\text{Person}:\phi_{\text{init}}]$ appears on the passive auxiliary (as in past participles) or on T (as in SE-passives), it is interpreted by existential closure over the Initiator (Brüning 2012, Legate et al 2020).

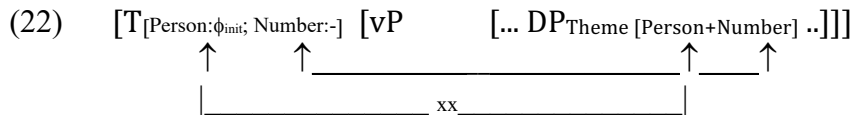
(21) Passive SE with postverbal subjects



The inherent valuation $\{\text{Person}:\phi_{\text{init}}\}$ of Tense makes it impossible for Tense to enter an AGREE relation in ϕ -Person-features. But Tense also has unvalued Num(ber) features, which get valued via an AGREE relation with DP_{Theme} , which is thereby assigned Nominative

¹³ We do not adhere to an alternative line of inquiry according to which the external argument of passives is projected in the subject position of the corresponding active configuration (Collins 2005).

Case. The fact that the AGREE between Tense and the DP_{Theme} of SE-passives can only concern Number explains the Person Constraint,¹⁴ namely the observation that a DP_{Theme} that has ϕ -features for Person (see in particular 1st, 2nd person pronouns)¹⁵ cannot rely on those features for the AGREE relation, and the derivation crashes, yielding unacceptability:



- (23) Romanian
M-am invitat ieri la petrecere. *passive
[I] me AUX invited yesterday to the party
'I invited myself to the party/*I was invited to the party'

We can also explain why the DP_{Theme} of SE-passives cannot go to Spec,TP (Raposo & Uriagereka 1996):

- (24) European Portuguese
a. Vai ser dificil [[os documentos]; serem aceites ti]
will be difficult the documents be.3pl accepted.ptcp
'It will be difficult for the documents to be accepted.' (aux+ptcp passive)
b. * Vai ser dificil [[os documentos]; aceitarem-se ti]
will be difficult the documents accept.3pl-refl
(exs (8)a./b. Raposo & Uriagereka (1996, p.754)) (refl passive)

As R&U point out, in non-finite complements topicalization is not available and preverbal subjects can only be in Spec TP. The ungrammaticality of (24)b therefore shows that the DP in se-passives cannot occupy the spec TP subject position.

Arguably, the Spec-head relation requires AGREE not only in Number-features but also in Person features. And since the Person features of the Tense of SE-passives is inherently valued as ϕ_{init} , DP_{Theme} cannot access Spec,TP.

It is interesting to observe that none of the other meanings of SE-verbs (anticausative, middle, reflexive) is constrained wrt the position or the features of the DP_{Theme} . Given the proposal made here, this is expected: since no Initiator needs to be supplied for anticausative and middle *se*, Tense can project spec TP and DP_{Theme} can access this position. Note moreover that participle passives are also immune to these constraints. This is also expected given the differentiated analyses proposed here for the two passive configurations: with participle passives the feature $[Person:\phi_{init}]$ values the Person-feature of v_{cause} ; since the Person-feature of Tense is unvalued, Tense can enter an unconstrained AGREE relation with DP_{Theme} .

In sum, the present analysis shares with some other proposals the view that passive configurations involve an Initiator that is implicit, in the sense that it is not projected onto a subject position. However, we differ from most, maybe all existent proposals insofar as we do

¹⁴ On the Person Constraint see Burzio 1986, d'Alessandro 2007 and Dobrovie-Sorin 2021.

¹⁵ As observed by Cornilescu (1998) and Mendikoexea (2008), the Person constraint should be understood in a more general sense, which includes the ban on Human specific DPs, e.g., proper names:

(i) Ion s-a invitat ieri la petrecere.
Ion SE-AUX_{Tense} invited yesterday to the party
John invited himself to the party/*John was invited to the party.

not assume a specialized $\text{Voice}_{\text{pass}}$ head, but instead we assume that depending on the syntax of the passive construction, the implicit initiator can be introduced at different levels of the syntax: v for participles, and T for reflexive passives in Romance. When the feature $[\text{Person}:\phi_{\text{init}}]$ appears on Tense, it inherently values the Person features of Tense, and consequently will affect AGREE between Tense and DP_{Theme} . Hence the observed constraints. No such effect appears in participle passives, because in those configurations $[\text{Person}:\phi_{\text{init}}]$ appears on the passive auxiliary, which does not enter AGREE with DP_{Theme} . Thus, passive auxiliaries can be viewed as 'dedicated' Voice heads, but such a dedicated head is not necessary for passivization to occur.

5.3 SE-passives with unergative verbs

Romanian allows se-passives with unergative verbs. According to the hypothesis defended here, a cognate null *pro* is projected in the object position. The null *pro* enters an AGREE relation with a Tense specified as $\{\text{Person} : \phi_{\text{init}}, \text{Number}:-\}$: because the Spec of $v_{\text{cause}\{\phi:\emptyset\}}$ is not projected, Tense can enter AGREE with the null *pro* in the VP-internal position. Since null *pro* has completely underspecified features, Tense has the default morphology for number corresponding to 3sg agreement form:



5.4. Conclusion

The present analysis of passives assumes three functional heads: Tense, v_{cause} , v_{result} . This is similar to Ramchand's (2008) decomposition of verb-meanings, but crucially, her Init-phase does not correspond to any of the dedicated functional heads assumed in the present proposal.

In our system there is no dedicated functional head for the introduction of the external argument. We have assumed, following Kratzer (1996), that the external argument of active verbs is inserted in the Spec of a non-splitting little v and assigned Nominative Case via AGREE with Tense. As to the implicit external argument of passives, we have assumed that it is read off a variety of configurations, as summarized immediately below. In some cases Init is contributed by Tense, which according to Ramchand is not responsible for the representation of argument-structure.

Another distinctive feature of our proposal, by which we differ not only from Ramchand but also from practically all of the existing Voice-based accounts, is that we do not assume a dedicated Voice head (for either active or passive) and the presence of the $\{\phi:\phi_{\text{init}}\}$ feature (which is responsible for implicit external arguments with) impacts Case assignment to the DP against the background of the principles that govern AGREE within the feature-

valuation minimalist system.

	ϕ -specification	meaning	Case on Theme DP	Initiator	Example
V _{result}	{ ϕ : \emptyset }	stative	--	--	past participle
V _{cause}	{ ϕ : -}	causative (active)	vP: acc	DP in spec vP	active transitive & unergative
V _{cause}	{ ϕ : \emptyset }	no initiator	T: nom	--	anticausative, unaccusative
V _{cause}	{ ϕ : ϕ_{init} }	implicit initiator	T: nom	implicit initiator on vP	passive auxiliary
Tense+SE	{Person: ϕ_{init} , Number:-}	implicit initiator	T: nom	implicit initiator on T	SE-passive
Tense	{ ϕ : -}	--	n/a	DP in spec vP	active transitive (no argument reduction)

Table 1: Summary

To conclude, let us stress that according to our proposal passive meaning can be computed not only at the vP level (as is currently assumed) but also at the sentential level (TenseP domain): the Initiator is contributed by $v_{cause}\{\phi: \phi_{init}\}$ for participle passives and by $Tense\{\text{Person} : \phi_{init}, \text{Number:-}\}$ for SE-passives.

6. From Passivized Unergatives to Unergatives in the Aorist in Georgian

The analysis of passivized unergatives proposed above supports the hypothesis that the Ergative marking that is obligatory for Georgian unergatives in the aorist is due to the syntactic projection of a null cognate object. Nash (2021:1) envisages this analysis, but immediately discards it: 'At first sight, Georgian, where unergative and transitive predicates are lumped for case purposes, conforms to Hale & Keyser's (1993) analysis of unergatives as transitives with hidden Theme. Yet, structural properties of Georgian unergatives indicate the absence of internal argument.' We would like to suggest a reconsideration of the pro's and con's.¹⁶

Let us first observe that the syntactic projection of the cognate object of unergatives cannot be attributed to Hale & Keyser (1993), which postulates that the cognate object of unergatives is present in the lexical representation, but not syntactically projected. This proposal is of no help for explaining Ergative marking on the external argument of unergatives in the aorist. Indeed, Ergative marking can only be explained if we assume that in the aorist the cognate object of unergatives is obligatorily projected. In the other Aspect/Tense structures (imperfective present and future), on the other hand, we would need to assume that the null cognate object is not projected, hence the Nominative/Absolutive marking on the external argument of unergatives. Thus, the variation in the Case marking of the external argument of unergatives in Georgian can be explained provided that we assume that *the syntactic (non-)projection of the cognate object of unergatives depends on Tense/Aspect*.

¹⁶ Because of space limitations we cannot discuss Nash's observations a Hale & Keyser-inspired analysis of unergatives regarding (see her § 2.5.2 and §7.1).

Stipulative as it may seem at first sight, this assumption is in line with 'constructionist minimalist theories' according to which syntactic configurations are not determined by the lexical class (transitive, unaccusative, unergative, stative, etc.) of a given item but rather by functional categories. For the case at hand we need to assume that the aorist involves the obligatory projection of the internal argument (Theme), generated as the argument of a low little *v* and assigned Absolutive/Nominative. This minimal structure underlies unaccusatives, the only argument of which is marked as Nominative. For transitives and unergatives, a further functional head is needed, which hosts the Ergative-marked external argument. The configuration suggested here for the aorist is similar to Nash's configuration in (5)b in that a split vP (notated as a split VoiceP in Nash's article) is assumed. We would however like to avoid the ambiguous label 'Voice' (as we did in our analysis of passives in the previous sections) and use instead v_{result} for Nash's lower Voice and v_{Erg} for her upper Voice. The label v_{result} captures the perfectivity characteristic of the aorist (perfective Aspect focuses on the Result of the event) and Erg is mnemonic of the fact that the DP in its Spec is assigned Ergative Case. We propose further to view v_{Erg} on a par with Applicative heads: just like Applicative heads are dedicated functional projections for Dative-marked DPs, the Erg head is dedicated for Ergative-marked DPs. As such, v_{Erg} is radically different from those heads that introduce the implicit external arguments of passive configurations (see §4.3, §5.3, and the Tableau 1 in §5.4). Turning now to those Aspect/Tense values that require Nominative/Accusative alignment, we would need to assume a non-split vP (recall that we disregard the lowest little *v* assumed by Nash) not only for the imperfective present (as proposed by Nash) but also for the future (which according to Nash is perfective and as such has the same structure as the aorist). According to Nash, verbal constituents in imperfective Tenses are headed by a unique functional head labelled Asp-Voice, obtained by the fusion of Asp and Voice (see Nash's figure (5)a on p 4). These imperfective configurations are structurally similar to active configurations in Nominative/Accusative languages: see the structure in §4.1, which relies on a non-split little *v* marked as unvalued for phi-features.

In sum, *modulo* slightly different labels, we adopt Nash's analyses for the aorist and the imperfective present, according to which (i) the syntactic structure corresponding to the aorist is complex, involving two functional verbal heads, whereas the imperfective present relies on a simplex structure, headed by a non-split little *v*. This structural difference correlates with a difference in Case-alignment for both transitives and unergatives. In contrast, we depart from Nash's assumption that the Georgian future has the same structure as the aorist.¹⁷ The reason is that we would like to link sameness of structure to sameness of Case alignment. We would also depart from Nash regarding the analysis of unergatives in the aorist. Our analysis is extremely simple: v_{Result} , which underlies the aorist, forces the projection of the Theme argument, which gets Absolutive, hence the Ergative marking of the external argument (the Case alignment is thus perfectly parallel to that of transitives in the aorist). Nash's proposal is radically different: it is not the Theme that is projected, but rather a Holder role (as in statives), which gets identified to the external argument via a reflexivization

¹⁷ Nash's empirical evidence in favor of assuming that future and aorist pattern together is based on perfectivity. Note that the example contains the punctual verb *arrive* in the when-clause. The equivalent ex. in French would also receive a sequential interpretation (i-a), with a durative verb, however, a simultaneous reading is possible:

- (i) a. Quand tu arriveras je ferai la cuisine.
When you arrive.fut I do.fut the kitchen
When you arrive I will cook. (sequential)
- b. Quand ils joueront dans le jardin je ferai à manger.
When they play.fut in the garden I make.fut to eat.
When they are playing tennis I will be cooking.

rule marked by the *i-* prefix (glossed RMP for 'reflexive-mediopassive' by Nash). Nash insists on the fact that in this analysis Ergative is a dependent case (as in transitive configurations), but quite clearly, this is different from the canonical type of Ergative Case alignment with transitive verbs. Under our alternative proposal, on the other hand, Ergative Case is assigned exactly in the same way with transitives and with unergatives in the aorist.

Nash's proposal is prompted by the attempt at explaining the distribution of the RMP prefix *i-*: in the aorist this prefix is obligatory with unergatives, and since *i-* is a reflexivity marker when used with transitives, Nash proposes a reflexivizing operation that identifies the Holder and the external argument of unergatives. Despite the merits of this analysis, we think that it is worthwhile trying to pursue the alternative proposed here, which has the advantage of relying on the canonical rule of Ergative Case assignment.

Our alternative must of course explain the distribution of *i-* with unergatives: obligatory in the aorist and in the future, banned in the imperfective present (in the same way as the projection of the cognate object *pro* is forced in Romance unergative SE-passives and in copula passives in Scandinavian and German), which gets the Absolutive/Nominative, and the external argument is assigned Ergative Case.¹⁸

An apparent disadvantage of this proposal is that the *i-* that appears with unergatives cannot be analyzed as a reflexive or a non-active Voice marker (as it clearly is when appearing with transitives and unaccusatives, respectively) but rather as an Absolutive marked pronominal element, homophonous with the reflexive/non-active marker *i-*. We believe that this homonymy may have resulted from a grammaticalization process similar to that by which the Romance SE came to be reanalyzed as a Nominative-marked SE in some of the Romance languages (Italian and Spanish, but not in Romanian).

References

- Alexiadou, Artemis, Elena Anagnostopoulou & Florian Schäfer. 2015. *External arguments in transitivity alternations: a layering approach*. Oxford: Oxford University Press.
- Bruening, Benjamin. 2012. By-phrases in passives and nominals. *Syntax* 16: 1–41.
- Burzio, Luigi. 1986. *Italian Syntax. A Government-Binding Approach*. Dordrecht: Reidel.
- Cinque, Guglielmo. 1988. On *Si* Constructions and the Theory of *arb*. *Linguistic Inquiry* 19: 521–581.
- Chomsky, Noam. 2001. Derivation by phase. In Michael Kenstowicz (ed.), *Ken Hale: A life in language*, 1–52. Cambridge, MA: MIT Press.
- Christensen, Kirsti Koch & Tarald Taraldsen. 1989. Expletive chain formation and past participle agreement in Scandinavian dialects. In Paola Benincà (ed.), *Dialect Variation on*

¹⁸ An alternative explanation would be to assume that *i-* is a passive marker in the aorist. Under this hypothesis we would identify aorist unergatives with passive unergatives *modulo* the different realization of the external argument: Ergative marked vs. implicit. We will not pursue this line, which is clearly problematic. First, we do not want to identify passives in Nominative/Accusative languages with Ergative configurations, the main reason being the clear difference between implicit vs syntactically projected external arguments. Second, *i-* is present not only in the aorist, but also in the future, which is even more difficult to assimilate to passives than the Ergative structure in the aorist.

- the Theory of Grammar*, 53–83. Dordrecht: Foris.
- Collins, Chris. 2005. A smuggling approach to the passive in English. *Syntax* 8: 81–120.
- Cornilescu, Alexandra. 1998. Remarks on the Syntax and the Interpretation of Romanian middle Passive *se* sentences. *Revue roumaine de linguistique* 43: 317–342.
- D'Alessandro, Roberta. 2007. *Impersonal "si" constructions: Agreement and Interpretation*. Berlin. New York, NY: Mouton de Gruyter.
- Dobrovie-Sorin, Carmen. 1986. A propos du contraste entre le passif morphologique et se "moyen" dans les tours impersonnels. *Linguisticae Investigationes* X(2). 289–330.
- 1994. *The Syntax of Romanian*. Berlin, NY: Mouton de Gruyter.
- 1998. Impersonal *si* constructions in Romance and the passivisation of intransitives. *Linguistic Inquiry* 29(3). 399–437.
- 2021. Implicit Agents and the Person constraint on SE-passives. In Grant Armstrong & Jonathan E. MacDonald (eds), *Unraveling the complexity of SE*. Dordrecht: Springer.
- Haider, Hubert. 1990. Null subjects and expletives in Romance and Germanic languages. In Werner Abraham, Wim Kosmeijer, & Eric Reuland (eds.), *Issues in Germanic Syntax*, 49–66. Berlin, NY: Mouton deGruyter.
- Hale, Ken & Samuel Jay Keyser. 1993. On argument structure and the lexical expression of grammatical relations. In Ken Hale & Samuel Jay Keyser (eds), *The view from Building 20. Essays in honor of Sylvain Bromberger*, 53-110. Cambridge, MA: MIT Press.
- Kayne, Richard. 1975. *French Syntax*. Cambridge, MA: MIT.
- 2000. *Parameters and Universals*. New York, NY: Oxford University Press.
- Kratzer, Angelika. 1996. Severing the external argument from its verb. In Johan Rooryck & Laurie Zaring (eds.), *Phrase structure and the lexicon*, 109-137. Springer: New York.
- Legate, Julie Anne. 2012. Subjects in Acehnese and the nature of the passive. *Language* 88(3): 495-525.
- 2014. *Voice and v. Lessons from Acehnese*. Cambridge: MIT Press.
- Legate, Julie Anne, Faruk Akkuş, Milena Šreikaitė & Don Ringe. 2020. On passives of passives. *Language* 96(4): 771-818.
- Levin, Beth & Malka Rappaport Hovav. 1995. *Unaccusativity. At the syntax-lexical semantics interface*. Cambridge, MA MIT Press.
- Massam, Diane. 2001. Pseudo Noun Incorporation in Niuean. *Natural Language and Linguistic Theory* 19(1). 153-197.
- Mendikoetxea, Amaya. 1999. Construcciones inacusativas y pasivas. In Ignacio Bosque & Violeta Demonte (eds.), *Gramática descriptiva de la lengua española*, vol. 2, 1575–1629. Madrid: Espasa-Calpe.
- 2008. Clitic impersonal constructions in Romance. *Transactions of the Philological Society* 106: 290–336.
- Nash, Léa. XXX. Nonunitary structure of unergatives verbs in Georgian. XXX
- Perlmutter, David M. & Paul M. Postal. 1983. Toward a universal characterization of passivization. In David M. Perlmutter (ed.), *Studies in Relational Grammar*, 3–29. Chicago, Illinois: Chicago University Press.
- Pesetsky, David & Esther Torrego. 2004. Tense, Case and the nature of syntactic categories. In Jacqueline Guéron & Jacqueline Lecarme (eds.), *The Syntax of Time*, 495-538. Cambridge, Mass: MIT Press.
- Ramchand, Gillian. 2008. *Verb meaning and the lexicon: A first-phase syntax*. Cambridge: Cambridge University Press.
- Raposo, Eduardo & Juan Uriagereka, 1996. Indefinite SE. *Natural Language and Linguistic Theory* 14(4). 749–810.
- Sundaresan, Sandhya, & Thomas McFadden. 2009. DP distribution and finiteness in Tamil and

- other languages: selection vs. Case. *Journal of South Asian Linguistics* 2. 5–34.
- Vikner, Sten. 1995. *Verb Movement and Expletive Subjects in the Germanic Languages*. New York/ Oxford: Oxford University Press.
- Wood, Jim. 2015. *Icelandic Morphosyntax and Argument Structure*. Dordrecht: Springer.
- Wurmbrand, Susi & Koji Shimamura. 2017. The features of the voice domain: actives, passives, and restructuring. In Roberta d'Alessandro, Irene Franco & Ángel Gallego (eds.), *The verbal domain*, 179-204. Oxford: Oxford University Press.