

The Passive

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Abstract

In this article, after first giving a general characterisation of the importance of the passive construction for syntactic theory, we proceed to summarise several important recent analyses. We then move on to the controversial question of the status of the external argument in the passive, again reviewing a number of recent proposals.

Keywords

passive, active, voice, grammatical function, grammatical relation, external argument, implicit argument, by-phrase, demotion, promotion.

Keypoints

- The active/passive alternation for syntactic theory
- Summary of recent generative analysis of the passive
- The question of the status of the external argument in the passive

Introduction

The distinction between active and passive voice has its origins in traditional grammar, and can be illustrated by the sentences in (1):

- (1) a. The police arrested the demonstrators.
b. The demonstrators were arrested (by the police).

The active sentence in (1a) differs from its passive counterpart in (1b) in three principal respects. First, the subject of the active, *the police*, (typically, as here, an Agent) appears as the complement of the preposition *by* in the passive. Moreover, this *by*-phrase is optional; when it is absent this argument is nonetheless implicit. Second, the object of the active appears as the grammatical subject of the passive. Third, the simple verb of the active is replaced by a periphrastic form consisting of the auxiliary *be* and the passive participle (which in (1b) happens to be homophonous with the simple past of the verb *arrest*); many languages

mark the passive voice in other ways, e.g. with special verbal inflections or with a clitic element.

The active-passive alternation thus involves a change in the distribution of grammatical functions: the subject of the active is “demoted” to a *by*-phrase or implicit argument, while the object of the active is “promoted” to subject; these alterations in grammatical function appear to be marked on the verbal complex. Nonetheless, the thematic roles are not affected by the alternation: in both the active and the passive there is an Agent argument (*the police*) and a Theme or Patient argument (*the demonstrators*).

The analysis of the passive thus involves a number of principles and processes that are central to the theory of syntax: the nature of grammatical functions in relation to thematic roles, the ways in which these functions can distribute in the clause, and the ways these functions are marked on the verb and elsewhere. For these reasons, the passive has always played a major role in the development of syntactic theory.

Recent generative analyses of the passive

Hallman & Kallulli (2013) give a thorough overview of the history of analyses of the passive, starting from pre-generative structuralist analyses including Bloomfield (1926, 1933), Wells (1947) and Harris (1946). As they point out “[t]he analysis of the passive has passed from the status of a specific construction in the American structuralist tradition to the output of a specific transformational rule in early transformational grammar, to an epiphenomenon of the interaction of independent principles in more recent studies” (p. 1). The latter approach is exemplified by the analysis in Chomsky (1981:126), according to which “such processes as “passive” are composed of more fundamental abstract features, such as the elements of Case theory, θ -theory, etc.”. This kind of approach, which in fact reduces the traditional notion of “grammatical construction” in general to an epiphenomenon of the interaction of principles and parameters, has characterized work on passives since the 1980s, including Burzio (1986), Jaeggli (1986), Baker et al. (1989) and the more recent approaches which we summarise below. In the context of the Minimalist Programme with its emphasis on the role of formal features of heads as the drivers of derivations, this has meant reducing the properties of passives to features of *v*, Voice and/or other functional heads such as Passive.

A further major development has been the joint implications of the Predicate Internal Subject Hypothesis (Koopman & Sportiche 1991) and the Uniformity of Theta Assignment

Hypothesis (UTAH, Baker 1988). The former proposes that the external argument is first-merged in a Specifier position fairly low in the clause and, in the active, raises to the surface subject position; the latter, in its strongest form, requires a unique first-merge position for each thematic role or, on a slightly weaker formulation, each class of thematic roles. Together these ideas led to the proposal that the “demotion,” or perhaps suppression, of the external argument in the passive is really *non-promotion* of this argument from the low first-merged position to the higher “surface” position; we will discuss variants of this idea and the empirical issues it raises in more detail below. These ideas link up with the minimalist emphasis on features of functional heads in analyses which attribute the features which promote (in the active) or fail to promote (in the passive and other related non-active constructions) the external argument to heads such as *v*, Voice and Passive. As Hallman & Kallulli discuss in more detail, this general approach has been advocated by Embick (1997, 2004), Folli & Harley (2005) and Kallulli (2007), as well as, in varying guises, most of the recent analyses which we now discuss.

Legate (2012) focuses on Acehnese, a Malayo-Polynesian language spoken in Sumatra, originally analysed by Lawler (1977), who claimed that subject agreement in this language tracked the underlying external argument rather than the surface subject. *Pace* Durie (1988), Legate argues, on the basis of novel evidence and new arguments, that Lawler’s conclusion was essentially correct: a verbal prefix bears person and politeness features of the external argument, i.e. the (possibly implicit) agent of the passive and the subject of the active. She proposes that this prefix realizes features of the functional head that introduces the external argument, which she takes to be *v* (although she points out that “the VoiceP versus *v*P distinction is not central to this article” (2012: 512)). As she points out, “Acehnese understood in this way clearly demonstrates the existence in the passive of the functional head that introduces the external argument” (2012: 521). She argues that the introducer of the external argument, *v*, is modified, by predicate modification in the sense of Chung & Ladusaw (2004), rather than saturated by the features instantiated on the prefix. In the active, *v*’s external argument is saturated by an argumental DP and in the passive it is bound by existential closure.

In a similar vein, Bruening (2013: 22) proposes that “passive is a head (Pass) that selects a projection of Voice that has not yet projected its external argument ... This means that the complement of Pass is an unsaturated Voice projection.” Note that this is a second-

order selection operation: Pass selects a head that itself has an unsatisfied selectional feature. Bruening goes on to say that the Pass head “has the property of requiring that all of the arguments be saturated. This means that if the external argument of Voice has not been saturated, Pass will have to saturate it. It does this by existentially binding it” (2013:23). The key aspect of this analysis is, then, that Pass existentially closes the external argument, thereby preventing it from being projected. He analyses the *by* phrase as being like Pass in selecting an unsaturated Voice. Since the *by*-phrase is an adjunct, it does not saturate Voice by selecting it, therefore Pass can and must appear too. However, in this case, Pass cannot bind the external argument by existential closure; this property of Pass must therefore be treated as optional. The function of non-existential Pass is then simply to identify the correct morphology.

Alexiadou, Anagnostopoulou & Schäfer (2015, AAS henceforth) present an analysis of non-active constructions, including passives, across several languages. Like Bruening, they treat the passive (in English and German; the passive in Greek and other languages is different, as we will see directly) as involving a Passive head which selects Voice:

(2) English/German passive:

[_{PassiveP} Passive [_{VoiceP} Voice+D [_{VP} Root+v]]]

As in Bruening’s analysis, Passive selects VoiceP and binds the EA, represented here by the D-feature on Voice (AAS adopt from Embick 1997, 2004, the idea that non-active Voice has no Specifier by definition; see Note 1 on this). For passives in Greek and similar languages, AAS propose a structure without a Passive head, as in (3):

(3) [_{VoiceP} Voice_{MIDDLE} [_{VP} Root + v]]

Here the label Voice_{MIDDLE} subsumes several morphologically syncretic Voice heads (i.e. it is Non-Active). This kind of Voice is also found in marked anticausatives in Greek, as well as reflexives. On the other hand, (4) is the structure for “SE-reflexives” such as the Romance and Germanic counterparts of *wash oneself*, which feature a clitic/weak-pronoun monomorphemic reflexive morpheme (of a kind not found in English):

(4) [TP T [VoiceP DP_{AGENT} Voice [vP v SE_{PATIENT}]]]

These are semantically and syntactically transitive predicates. In contrast, the semantically intransitive but syntactically transitive structure in (5) generates reflexively marked anticausatives as in Romance (e.g. Italian *si affonda* 'sinks' in *La nave si affonda* 'The ship sinks') or Germanic (e.g. German *Die Tür öffnet sich* 'The door opens'), with the reflexive marker being a kind of expletive.

(5) [TP T [VoiceP SE_{EXPL} Voice [vP v DP_{THEME}]]]

Grestenberger (2021) applies this approach to Vedic Sanskrit and Ancient Greek.

Müller (2019, to appear) and Murphy (2016) exploit the notion of structure removal in their analyses of passives. Structure removal is the opposite operation to Merge: where Merge adds structure, Remove takes it away. In passives, the external argument is merged to v', just as in actives; however, at a later stage of the derivation it is removed/sliced away from the structure. Again, this is formally captured by a Remove-triggering feature which is present on passive, but not active, v. In between these two stages, "there is an option of carrying out other operations, including in particular those that require the presence of DP_{ext} [i.e. the external argument] ... once the derivation has moved on beyond the vP domain, there is no DP_{ext} anymore that could be accessed by syntactic operations" (Müller, to appear: 146). This analysis makes very clear predictions regarding what Müller refers to as the "accessibility" of the external argument.

Similarly to AAS for Greek-type languages and unlike Bruening (2013), Legate et al. (2020) analyse the passive even for English as a subtype of the Voice head, and -- contrary to Bruening -- place the existential quantifier there. Following AAS, Legate et al. take the Voice_{PASS} head to introduce the external θ -role without syntactically projecting this argument in its specifier. Therefore, the external θ -role is compatible with a *by*-phrase optionally adjoined to VoiceP. Legate et al. indicate the difference between active and passive voice featurally as in (6a) vs. (6b), using [\bullet D \bullet] to indicate selection of a DP specifier, thus avoiding the technical

problem that AAS run into by adopting Embick’s proposal that non-active Voice is defined by the absence of an external argument in its Specifier.¹

- (6) a. [Voice_{ACTP} [DP] [Voice_{ACT'}] Voice_{ACT} [θ • D•] [VP V DP]]]
 b. [Voice_{PASSP} [Voice_{PASSP}] [(PP) [P by] NP] Voice_{PASS} [θ] [VP V DP]]]

Furthermore, Legate et al. show that the so-called “passives of passives” in Turkish, Lithuanian, and Sanskrit are in fact three very different constructions, with the Turkish construction being an impersonal of a passive, the Lithuanian an evidential of a passive, and the Sanskrit an unaccusative with an instrumental case-marked theme, thus corroborating Perlmutter and Postal’s (1977 et seq.) contention that passives cannot passivize (see below).

Finally, on the basis of data from Greek and English involving reflexive binding, as in (7), Angelopoulos et al. (2020) propose an analysis in which passive *by*-phrases are merged as the arguments of the active with the corresponding theta roles.

- (7) The packages were sent by the children₁ to themselves₁.

We note, however, that if binding in (7) happens from an A-position as Angelopoulos et al. (2020) claim, then by the same token the *from*-phrase in (8) occupies an A-position, too. This fact thus has the potential to undermine the Angelopoulos et al.’s analysis.

- (8) The letter was sent with love from no one to anyone.

What all the accounts of passive summarised here share is the idea that the active-passive alternation (and, in the case of AAS at least, other voice alternations) are mediated by features

¹ AAS (2015: 102) state the rule as follows:

(i) Voice -> Voice[NonAct]/ ___No DP specifier

What (i) states is that no DP can merge to Voice[Non-Act] forming a further projection of Voice. In other words, Voice[Non-Act] must be able to project (provide a label for the category formed by merging some XP to it), but not if that XP is a DP. It is unclear how to formulate this notion in terms of bare phrase structure and a Labelling Algorithm of the kind proposed in Chomsky (2013, 2015): in that system, where a DP is merged to Voice/v, its feature-incompatibility with Voice/v causes it to raise to SpecTP; there is no obvious way to prevent merger of DP to SpecVoice/v in the first place. Hence (i) seems to be an impossible rule in the context of this theory of phrase structure and projection.

of the head which introduces the external argument. This in turn shows that the question of the nature of the external argument in passives is central.

The status of external argument in the passive

There are four reasons why the external argument is central to the analysis of the passive. First, the optional presence of a *by*-phrase indicates, at the very minimum, that the external argument can be structurally present as the complement of *by*. This becomes particularly clear if we consider the evidence that the external argument in the passive *by*-phrase can bear exactly the same compositional thematic role as the active external argument (Roberts 1987: 27):

- (9)
- a. A baseball was thrown by Fernando.
 - b. Support was thrown behind the candidate by the CIA.
 - c. The match was thrown by the prize-fighter.
 - d. The party was thrown by the department.
 - e. A fit was thrown by the countess.

Second, when the *by*-phrase is absent, the external argument is still understood, and in fact is usually interpreted as an existential indefinite: hence *John was arrested* means “Someone arrested John”. This indefinite has obligatory narrow scope in relation to negation, so *John wasn’t arrested* means “Noone arrested John” and not “Someone didn’t arrest John”. This indefinite external argument is usually called the implicit argument of the passive.

Third, implicit arguments show a degree of “syntactic activity”, although the nature and degree of this “activity” are unclear. Implicit arguments appear to be able to control into purpose adjuncts, license agent-oriented adverbs, bind anaphors (at least to some extent) and enter into secondary predication relations:

- (10)
- a. The boat was sunk [to collect the insurance].
 - b. The boat was deliberately sunk.
 - c. Such privileges should be kept to oneself.
 - d. Breakfast was eaten naked.

In (10a), the subject of the infinitival purpose clause (PRO on standard analyses) can be interpreted as controlled by the implicit argument of the passive *sunk*. In (10b), the property of “deliberation” can be attributed to the same implicit argument. In (10c), the anaphor *oneself* is interpreted as bound by the implicit argument of *kept* and in (10d) the eaters of breakfast are the subject of the secondary predicate *naked*.

Fourth, it was originally proposed by Perlmutter & Postal (1977) that passives require an external argument. Hence, while some languages, e.g. German, allow passives of unergative intransitives, passives of unaccusatives are not allowed:

- (11) a. Es wurde getanzt.
it was danced
'There was dancing.'
- b. *Es wurde angekommen.
it was arrived

Perlmutter & Postal formulated this as a universal constraint on passives. This implies that, in addition to passives of unaccusatives, passives of passives and passives of raising verbs are disallowed. Various apparent counterexamples to this generalisation, notably from Turkish, Lithuanian and Sanskrit, have been observed, but, as we saw above, Legate et al. (2020) have shown that the constructions in question are passives of impersonals, passives of evidentials or simple unaccusatives.

Three different ways of analysing the behaviour of the external argument in passives have been proposed. One proposal is to treat the external argument as structurally represented but simply not “promoted” from its low, vP- or VoiceP-internal position. This approach is advocated by Collins (2005), Roberts (2019), Angelopoulos et al (2020). It has the immediate advantage of accounting for the first property above - the fact that the *by*-phrase faithfully tracks the external argument of the active – because it *is* the external argument. This approach also satisfies a strong version of the UTAH. It can also account for the existential interpretation of implicit arguments if these arguments are taken to be existentially interpreted null pronouns. However, this approach, unless more is said, predicts more binding and control possibilities for the implicit argument than are observed (see Williams 1985, 1987,

Lasnik 1988). Furthermore, it raises a minimality problem for object-raising. We can see this in the following schema:

(12) [TP ... [VoiceP/vP EA ... [VP V IA]]

Since the first-merged position of the EA asymmetrically c-commands that of the IA, the IA cannot move across the EA to SpecTP without incurring a violation of relativized minimality (Rizzi 1990, 2013). This led Collins (2005) to propose that the VP, or some non-argumental category containing the IA, raises across the EA without incurring a minimality violation. The IA is then raised to SpecTP from the moved category. This kind of derivation is known as “smuggling” (see Belletti & Collins 2021).

A second way of handling the properties of the external argument is to treat the relevant head, *v* or Voice, as instantiating this argument without it being projected in a Specifier position. Kallulli (2007), Legate (2012), Bruening (2013), AAS and Legate et al. (2020) all adopt versions of this approach, as, in an earlier framework, did Baker et al. (1989). This approach requires a special statement for the relation between *v*/Voice and the *by*-phrase, which is typically treated as an adjunct. However, it satisfies a weak version of UTAH (but one arguably compatible with bare phrase structure in not taking the distinction between heads and XPs as primitive), and is readily able to handle the existential interpretation of implicit arguments by treating the head either as an existential quantifier or as a variable bound under existential closure. It may also be able to capture the binding, control and predication properties of implicit arguments. In this context it should be pointed out that facts of the kind in (10) have been contested. In particular, Williams (1985) pointed out examples like the following:

(13) Grass is green to promote photosynthesis.

Here one would be hard-pressed to posit a structurally present implicit argument controlling the subject of the purpose clause. Instead, as Kallulli (2007) proposes, an animate event participant of some kind, entailed by the semantics of the predicate, suffices. More generally, this approach may give greater flexibility than the strict structural representation approach in handling the complex and recalcitrant facts in this domain (for example, Müller (to appear)

observes that the German counterpart of (13) is ungrammatical; it is hard to see what the difference between German and English might be here).

Finally, Müller (2019, to appear) and Murphy (2016) propose that the external argument is present for part of the derivation before undergoing Remove and thereby disappearing. As we noted above, this approach makes very clear predictions concerning “downward” accessibility (possible since the external argument is able to interact with material it c-commands in virtue of being merged later than this material) vs. “upward” accessibility (not possible since material merged after the external argument has been removed cannot interact with it). Here again, though, downward accessibility involves control, binding and secondary predication, and we have already observed some of the empirical difficulties in this domain.

Conclusion

The importance of the passive for syntactic theory remains undiminished in current approaches. As we have seen, in recent years the issues have largely centred around the properties and representation of the external argument. It is fair to say that much remains unclear, both at the empirical and the theoretical level, in this domain. There seems little doubt that the passive will continue to be reanalysed in order to develop syntactic theory for some time to come.

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