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# ON PASSIVES OF PASSIVES

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Perlmutter and Postal (1977 and subsequent) argued that passives cannot passivize. Three prima facie counterexamples have come to light, found in Turkish, Lithuanian, and Sanskrit. We reexamine these three cases and demonstrate that rather than counterexemplifying Perlmutter and Postal's generalization, these confirm it. The Turkish construction is an impersonal of a passive, the Lithuanian is an evidential of a passive, and the Sanskrit is an unaccusative with an instrumental case-marked theme. We provide a syntactic analysis of both the Turkish impersonal and the Lithuanian evidential. Finally, we develop an analysis of the passive that captures the generalization that passives cannot passivize.*

*Keywords*: passive, impersonal, voice, evidential, Turkish, Lithuanian, Sanskrit

**1.** INTRODUCTION. In the 1970s and 1980s, Perlmutter and Postal (Perlmutter & Postal 1977, 1984, Perlmutter 1982, Postal 1986) argued that passive verbs cannot undergo passivization. In the intervening decades, three languages have surfaced as prima facie counterexamples—Turkish (Turkic: Turkey), Lithuanian (Baltic: Lithuania), and Classical Sanskrit (Indo-Aryan) (see, inter alia, Ostler 1979, Timberlake 1982, Keenan & Timberlake 1985, Özkaragöz 1986, Baker et al. 1989, Nakipoğlu-Demiralp 2001, Öztürk 2005, Özsoy 2009).[1] Indeed, recent theoretical work in three distinct frameworks (Bruening 2013, Kiparsky 2013, Murphy 2014) have taken these three languages as evidence for the theoretical approach required to analyze the passive. Specifically, they propose that the mechanism that, in descriptive terms, demotes the agent must be quite general, able to also demote the theme of passives.[2]

We reexamine each case and demonstrate that rather than counterexemplifying Perlmutter and Postal's generalization, the cases in fact confirm it. In all three, the theme is not demoted, but rather is syntactically projected into argument position. In §2, we carefully establish a distinction in Turkish between two constructions with identical morphology: (i) a passive, which is limited in application to transitive predicates with a thematic subject and structurally case-marked object, and (ii) an impersonal, which has no argument demotion—an unpronounced impersonal pronoun fills the argument position, be it the agent or the theme (see e.g. Blevins 2003 for discussion of passives versus impersonals). We then demonstrate that purported passives of passives in Turkish

[1] Irish was also mentioned in early work, such as Nerbonne 1982, but is now understood to involve an impersonal of a passive; see McCloskey 2007, Maling 2010, Legate 2014, inter alia.

[2] We use 'agent' and 'theme' for thematic subject and thematic object, respectively (although 'initiator' is a more accurate subject θ-role; Ramchand 2008, Bruening 2013, inter alia).

are in fact impersonals of passives, and we provide a new syntactic analysis of impersonals. We discuss Lithuanian in §3, building on previous work to carefully show that an evidential construction with no argument demotion has been confused with the passive due to partially overlapping morphosyntax. Apparent passives of passives are in fact evidentials of passives; the evidential may apply to a passive, while the passive may not. We provide a syntactic analysis of the evidential. In §4, we reexamine the Sanskrit construction. While the analysis is necessarily more tentative due to the lack of native speakers, we argue that the construction involves no passivization at all, but rather instrumental case assignment to unaccusative themes, with verbal morphology shared between the passive and unaccusative.

The import of these three case studies, then, is the confirmation that the passive cannot apply to predicates that have already been passivized. In §5, we discuss the consequences for the analysis of the passive. We argue that the generalization is naturally explained by a syntactic analysis whereby active and passive are built independently using different lexical items, but not by analyses that posit passivization as a lexical or syntactic rule. We develop an analysis of the passive that accounts for our findings. Section 6 concludes.

**2.** Turkish. The prima facie passive of a passive in Turkish is exemplified in 1; note in particular the sequence of two passive morphemes (identical modulo the application of regular phonological processes; see Kornfilt 1997) and the apparent demotion of both the agent and theme.

(1) a.  Bu  oda-da      döv-ül-ün-ür.
        this room-LOC beat-PASS-PASS-AOR
          'One is beaten (by one) in this room.'
    b.  Harp-te   vur-ul-un-ur.
        war-LOC shoot-PASS-PASS-AOR
          'One is shot (by one) in the war.'                    (Özkaragöz 1986:77)

Before tackling this construction, let us take a step back and examine the properties of constructions with a single passive morpheme. We argue that these bifurcate into a passive and an impersonal, each exhibiting a distinct set of characteristic behaviors.

The passive is characterized by demotion of the agent and promotion of the accusative theme to a nominative grammatical subject. (Nominative is null in Turkish; we leave it unglossed.) The agent may be expressed in a 'by'-phrase headed by *tarafından*.[3]

(2) a.  Ali kitab-ı      hızlı  oku-du.
        Ali book-ACC quick read-PST
          'Ali read the book quickly.'
    b.  Kitap (Ali tarafından) hızlı   oku-n-du.
        book   Ali by          quick read-PASS-PST
          'The book was read (by Ali) quickly.'

Verbs without a structurally case-marked theme in the active do not passivize;[4] this includes verbs with an object that is pseudo-incorporated or marked with an oblique case.

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[3] This is morphologically decomposable.

    (i) taraf-ı   -ndan
        side -3SG-ABL

[4] We have encountered two native speakers of Turkish with a more permissive grammar than our ten primary consultants; for these speakers, verbs with oblique or pseudo-incorporated objects can undergo passivization, unergatives marginally can, and unaccusatives cannot. We focus on the variety spoken by our primary consultants, which they consider standard, but return to the grammar of these two speakers when it provides insights. Variation within Turkish requires further study.

Example 3b illustrates pseudo-incorporation (cf. 2b above), with the positioning of the unmarked object below the low manner adverb and the lack of accusative case on the object used as diagnostics; see Massam 2001 on pseudo-incorporation and Kornfilt 2003 and Öztürk 2005 on the Turkish instantiation. Example 4b illustrates the oblique object subcase using the verb 'kick', which takes a dative object. Example 4c illustrates that passivization of 'kick' is possible for some speakers, with the dative patterning as structural in promoting to a nominative grammatical subject.

(3) a.  Ali hızlı  kitap oku-du.
        Ali quick book read-PST
        'Ali did book-reading quickly.'
    b. *Ali tarafından hızlı  kitap oku-n-du.
        Ali by          quick book read-PASS-PST
        'Book-reading was done quickly by Ali.'

(4) a.  Çocuk top-a    vur-du.
        child  ball-DAT kick-PST
        'The child kicked the ball.'
    b. *Top-a   çocuk tarafından vur-ul-du.
        ball-DAT child by          kick-PASS-PST
        'The ball was kicked by the child.'
    c. %Top çocuk tarafından vur-ul-du.
        ball child by          kick-PASS-PST
        'The ball was kicked by the child.'

Verbs whose sole internal argument is a (non-case-marked) finite clause also cannot passivize.[5]

(5) a.  Onlar [ben Ali-yi  gör-dü-m]  san-ıyor-lar.
        they   I   Ali-ACC see-PST-1SG think-PROG-3PL
        'They think that I saw Ali.'
    b. *Onlar tarafından [ben Ali-yi  gör-dü-m]  san-ıl-ıyor.
        they  by           I   Ali-ACC see-PST-1SG think-PASS-PROG
        'That I saw Ali is thought by them.'

Verbs that are unergative or unaccusative also lack a structurally case-marked object and so cannot passivize, as illustrated in 6 and 7, respectively.

(6) a.  Çocuk-lar bütün gece  dans  et-ti-ler.
        child-PL  whole night dance do-PST-PL
        'The children danced the whole night.'
    b. *Bütün gece  çocuk-lar tarafından dans  ed-il-di.
        whole night child-PL  by          dance do-PASS-PST
        'It was danced the whole night by the children.'        (Özsoy 2009:263)

(7) a.  Kaza-lar-da     adam-lar öl-ür-ler.
        accident-PL-LOC man-PL   die-AOR-PL
        'Men die in accidents.'
    b. *Kaza-lar-da     adam-lar tarafından öl-ün-ür.
        accident-PL-LOC man-PL   by          die-PASS-AOR
        'It is died by men in accidents.'

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[5] Verbs that take a nominalized clause pattern as expected: if the complement is accusative in the active, the verb can be passivized, like *bilmek* 'know', whereas if the complement is oblique, the verb cannot be passivized, like *inanmak* 'believe', which takes a dative clause.

When a (cognate) object is added to an unergative verb, passivization becomes possible; thus in 8 passivization of 'run' is grammatical only in the presence of 'race'.[6]

(8) a.  Ali (koşu-yu) koş-tu.
        Ali  race-ACC run-PST
        'Ali ran (the race).'

    b.  *Ali tarafından koş-ul-du.
         Ali  by         run-PASS-PST
         'It/There was run by Ali.'

    c.  Koşu Ali tarafından koş-ul-du.
        race Ali by         run-PASS-PST
        'The race was run by Ali.'

Further evidence that the possibility for passivization is determined by the presence of a structurally case-marked object, rather than being lexically determined, comes from restructuring. George and Kornfilt (1977) argue that *iste-* 'want', *başla-* 'begin', and *çalış-* 'try' in Turkish can function not only as control verbs but also as restructuring verbs, presenting evidence from scrambling, rightward movement, and the (im)possibility of embedded temporal adverbs. Most relevantly for our purposes, they also show that passivization of the restructuring verb yields a long passive (see Wurmbrand 2001 on restructuring and long passives in German). Thus, in 9a, the 'applaud' embedded under 'want' has an accusative theme, allowing passivization of 'want' in 9b. The embedded theme raises to become the matrix nominative grammatical subject; the 'by'-phrase realizes the subject of 'want', not 'applaud'.[7]

(9) a.  dinleyici-ler [yazar-lar-ı      alkışla-mak] isti-yor-lar.
        audience-PL  author-PL-ACC applaud-INF  want-PROG-3PL
          'The audience wants to applaud the authors.'   (George & Kornfilt 1977:66)

    b.  yazar-lar  (dinleyici-ler tarafından) [alkışla-n-mak]
        author-PL audience-PL  by           applaud-PASS-INF
            iste-n-iyor-lar.
            want-PASS-PROG-3PL
        'The authors were wanted to be applauded by the audience.'
                                                   (George & Kornfilt 1977:68)

In contrast, when the embedded predicate lacks a structurally case-marked object, passivization of the matrix verb becomes impossible. In the following, 'board' takes a dative object, so matrix 'want' cannot be passivized.

(10) *Hasan tarafından [otobüs-e bin-il-mek]      iste-n-di.
      Hasan by          bus-DAT board-PASS-INF want-PASS-PST
       'The bus was wanted to be boarded by Hasan.'

Thus, it is the presence of a structurally case-marked object that allows passivization, not the identity of the lexical verb itself.

Importantly, verbs lacking a structurally case-marked object can in fact be affixed with the passive suffix, provided that no 'by'-phrase is included. We provide an example below for each predicate type.[8]

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[6] Similarly, when a transitive verb is detransitivized through the reflexive or reciprocal suffix, passivization becomes impossible. See Kornfilt 1997 on these suffixes.

[7] George & Kornfilt 1977 argues that the passive morpheme on the embedded verb is due to a morphological copying operation rather than passivization of the embedded predicate. See Wurmbrand & Shimamura 2017 for a recent implementation of such an operation.

[8] Nakipoğlu-Demiralp (2001) argues that the aorist is required for impersonals (her 'impersonal passives') with unaccusatives, but other tense/aspect combinations are possible with unergatives. Our investigations ac-

(11) Hızlı    kitap oku-n-ur.
    quickly book read-PASS-AOR
      'One does book-reading quickly.'

(12) Her    gece top-a      vur-ul-ur.
    every night ball-DAT kick-PASS-AOR
      'One kicks the ball every night.'

(13) Her    gece dans   ed-il-ir.
    every night dance do-PASS-AOR
      'One dances every night.'

(14) Türkiye-de her    gün trafik kaza-lar-ı-nda        öl-ün-ür.
    Turkey-LOC every day traffic accident-PL-CM-LOC die-PASS-AOR
      'In Turkey it is died in traffic accidents every day.'

                                       (Nakipoğlu-Demiralp 2001:140)

(15) [Ben Ali-yi   gör-dü-m] san-ıl-ıyor.
    I     Ali-ACC see-PST-1SG think-PASS-PROG
      'People think that I saw Ali.'

Such constructions have been analyzed as impersonal passives, that is, passives in which the agent is demoted, but there is no promotion to the grammatical subject position (Özkaragöz 1986, Kornfilt 1997, Nakipoğlu-Demiralp 2001, Öztürk 2005, Özsoy 2009, Kiparsky 2013). In contrast, we argue that these are impersonals, in which no demotion has taken place; rather, the missing argument is syntactically projected as a null impersonal pronoun.[9] We provide eight arguments supporting our analysis whereby the passive agent is demoted, whereas the impersonal agent (or theme, in the case of unaccusatives) is syntactically present as a null impersonal pronoun.

We have already seen the first argument in 3b, 4b, 5b, 6b, 7b versus 2b—a 'by'-phrase is impossible in the impersonal, but possible in the passive, indicative of demotion in the latter but not the former. While some languages have been claimed to exhibit passives but no 'by'-phrases, Turkish crucially does have 'by'-phrases, but these are limited to predicates that take a structurally case-marked object in the active. Our analysis explains this pattern—'by'-phrases are possible when the agent is demoted, in passives, but not when the agent is projected as an impersonal pronoun, in impersonals.

A referee suggests that 'by'-phrases may be disallowed only in impersonal passives, citing Icelandic as an exemplar. This is not an alternative analysis of the distribution of Turkish 'by'-phrases. As mentioned in n. 4, we have consulted two native speakers of Turkish with a more permissive grammar than our ten primary consultants; for these speakers, verbs with oblique or pseudo-incorporated objects may undergo passivization, unergatives may marginally do so, and unaccusatives cannot. These two speakers do not allow 'by'-phrases with unaccusative impersonals, but do allow 'by'-phrases with impersonal passives with oblique and pseudo-incorporated objects, demonstrating that there is not a general restriction against 'by'-phrases with impersonal passives in the language. (We annotate the first example as % since it is ungrammatical for our primary consultants.)

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cord with this, with two additions. First, the progressive may be used instead of the aorist, due to an ongoing progressive-to-imperfective shift whereby the progressive is extended to the domain of the imperfective aorist (Kornfilt 1997:339–40, Deo 2015, inter alia). Second, verbs with pseudo-incorporated or oblique objects pattern with unergatives, suggesting that the distinction is due to the base-generated position of the impersonal as thematic subject or object.

   [9] Maling 2010 also proposes this analysis, on the basis of the first two arguments presented here, as well as the aspectual properties mentioned in n. 8; thank you to Joan Maling for alerting us to this paper.

(16) %Top-a      çocuk-lar tarafından  vur-ul-du.
   ball-DAT child-PL   by            kick-PASS-PST
   'The ball was kicked by the children.'

(17) *Savaş-ta çocuk-lar tarafından öl-ün-ür.
   war-LOC child-PL   by           die-PASS-AOR
   'It is died by the children in the war.'

Further, 'by'-phrases are possible in impersonal passives in Icelandic, provided that the agent expresses new information and/or is phonologically heavy (Ingason et al. 2016). In the following, the agent is both heavy and new information, and the impersonal passive with a 'by'-phrase is not only grammatical but indeed preferred over the active.

(18) [Context: What happened when inflation went up after the wall fell?]
   Það    var stigið   á  bremsurnar [af sameinuðum seðlabanka Austur-
   there  was stepped on the.brakes    by united         central.bank East-
    og   Vestur-Þýskalands].
    and West-  Germany
   'The United Central Bank of East and West Germany hit the brakes.'
   ('There was stepped on the brakes by the United Central Bank of East
   and West Germany.')                                   (Ingason et al. 2016:49)

In Turkish, in contrast, manipulating the discourse status and phonological weight of the agent does not facilitate inclusion of the 'by'-phrase.[10]

(19) [Context: What happened when inflation skyrocketed?]
   Ekonomi-de   (*Merkez Bankası ve  geçici  hükümet      tarafından)
   economy-LOC   central  bank     and interim government by
    fren-e      bas-ıl-dı.
    brake-DAT step-PASS-PST
   'One stepped on the brake on the economy (*by the Central Bank and the
   interim government).'

Therefore, the availability of a 'by'-phrase is a valid test for passive agent demotion in Turkish.

Second, while the passive may demote a nonhuman agent, the impersonal may not. Instead, it patterns like overt impersonal pronouns in requiring a human interpretation (cf. Italian *si*, German *man*, English *one*). Thus, the following cannot be interpreted as passives since they are unergative, and they are semantically anomalous as impersonals since the predicate takes a nonhuman theme.

(20) a. #Dağ-lar-da        ulu-n-uyor.
    mountain-PL-LOC howl-PASS-PROG
    'One howls in the mountains.'

  b. #Çöl-ler-de      hısla-n-ıyor.
    desert-PL-LOC hiss-PASS-PROG
    'One hisses in the deserts.'

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[10] Given that 'by'-phrases in Turkish are medial, rather than final as in Icelandic, we might expect that new phonologically light agents would facilitate inclusion of a 'by'-phrase. This is also not the case.

  (i) [Context: What happened when inflation skyrocketed?]
   Ekonomi-de   (*biri       tarafından) fren-e      bas-ıl-dı.
   economy-LOC   someone by           brake-DAT step-PASS-PST
    'One stepped on the brake on the economy (*by someone).'

Passives, in contrast, do allow nonhuman agents, even without a 'by'-phrase.[11] In 21, the most natural interpretation of the agent is nonhuman.

(21) Ali orman-da  yürü-r-ken       ısır-ıl-dı.
     Ali forest-LOC walk-AOR-while bite-PASS-PST
       'While walking in the forest, Ali was bitten.'

A referee notes that impersonal passives in, for example, Dutch and German have also been claimed to require a human agent. This is not a plausible alternative analysis for the Turkish pattern. The two Turkish speakers mentioned above who allow impersonal passives do allow nonhuman agents of these impersonal passives. The following illustrates (see also n. 38).

(22) %Çöl-ler-de      yılan-lar tarafından hısla-n-ıyor.
       desert-PL-LOC snake-PL by          hiss-PASS-PROG
       'It is hissed by snakes in the deserts.'

In addition, as noted by the referee, nonhuman agents of impersonal passives are possible in Dutch and German, provided that the nonhuman agents have control over the event (Primus 2011).

(23) Dutch
     Maar goed, gepiept wordt er al lang niet meer. De muizen hebben zich, met de rest van de muizenfamilie, met stille trom uit mijn leven teruggetrokken.
       'Well, there has long been no squeaking any more. The mice and all the rest of the mouse family have disappeared from my life silently.'

                                                                    (Primus 2011:91)

Such examples in Turkish, by contrast, are semantically anomalous, as we predict.

(24) #Burada uzun zamandır ciyakla-n-mı-yor.        Fare-ler  ve  öteki bütün
      here    long time     squeak-PASS-NEG-PROG mouse-PL and other all
        kemirgen-ler hayat-ım-dan sessizce yok ol-du-lar.
        rodent-PL     life-1SG-ABL quietly  disappear-PST-PL
      'One hasn't squeaked here in a long time. The mice and all the other rodents have disappeared from my life silently.'

Thus, the demoted passive agent may be nonhuman in Turkish, but the impersonal pronoun may not.

The third argument comes from control. The impersonal agent may be controlled PRO, supporting its analysis as syntactically projected. Two examples follow. Note that these involve control rather than restructuring. The embedded predicates cannot undergo passivization, since the first has a dative object and the second is unergative. Furthermore, while 'want' in 25b can function as a restructuring predicate, 'get used to' in 25a cannot.[12] Also note that 'want' and 'get used to' are not in the class of predicates expected to exhibit predicative control,[13] and that predicative control is not expected with an embedded temporal adverb distinct from the matrix, as in 25b (cf. Chierchia 1995b on Italian impersonal *si*); see Landau 2015 for recent discussion.[14]

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[11] Cf. Kiparsky 2013, which claims that a nonhuman passive agent crosslinguistically is possible only when specified through a 'by'-phrase. The most natural interpretation of the English translation also involves a nonhuman agent, indicating that the claim is also incorrect for English.

[12] According to the tests established for Turkish in George & Kornfilt 1977; see above. Further, crosslinguistically, 'get used to' is not expected to pattern as restructuring (e.g. Wurmbrand 2001:6–9).

[13] That is, a structure that achieves the semantics of control without controlled PRO.

[14] Control is indeed required here, rather than this being accidental identity of two subjectless clauses. For example, 25a with the matrix verb changed to 'want' cannot express the natural situation wherein tour bus drivers want the passengers to board the bus.

(25) a. IMP$_i$ [PRO$_i$ otobüs-e bin-il-me]-ye      alış-ıl-dı.
          PRO  bus-DAT  board-PASS-INF-DAT get.used.to-PASS-PST
      'One got used to boarding the bus.'

   b. IMP$_i$ [PRO$_i$ yarın      ayrıl-ın-mak] iste-n-di,      ama yarın
          PRO tomorrow leave-PASS-INF want-PASS-PST but   tomorrow
       için hava    tahmini çok   kötü.
       for   weather forecast much bad
      'One wanted to leave tomorrow, but the weather forecast for tomorrow
       is too bad.'

As expected, 'by'-phrases cannot be added in 25, whether related to the embedded or matrix predicates.

   The Turkish impersonal here provides an important glimpse into the properties of impersonal pronouns. McCloskey (2007:835) reports that '[o]ne of the threads which runs all through the literature on arbitrary [impersonal] pronouns is the intuition that such pronouns are similar to, or identical with, the "arbitrary" understanding of PRO'. That work demonstrates that the Irish null impersonal pronoun can act as a controller (McCloskey 2007:829) and that in finite contexts impersonal pronouns can serve as antecedents only for impersonal pronouns, not personal (McCloskey 2007:835); these two facts together suggest that PRO is impersonal when controlled by an impersonal pronoun. The work further demonstrates that the Irish null impersonal pronoun is treated as equivalent to arbitrary PRO for the identity condition required for ellipsis licensing (McCloskey 2007:835). In Irish, though, we cannot directly observe the null impersonal pronoun as PRO, since the presence of the impersonal pronoun is identified through designated agreement with finite T.[15] In Turkish, however, the morphology identifying the presence of the impersonal pronoun is independent of finiteness. We therefore have the rare opportunity to confirm that the impersonal pronoun can serve as controlled PRO. (See below for our analysis, which explains this property of the impersonal pronoun.)

   The passive agent, in contrast, cannot be controlled PRO, indicating that it is syntactically unprojected. (These verbs do not have an exceptional case-marking use in Turkish; Kornfilt 1997.)

(26) a. *Hasan [kitap hızlı  oku-n-mak]    iste-di.
          Hasan  book quick read-PASS-INF want-PST
       'Hasan wanted to read the book quickly.'

   b. *Hasan [kitap hızlı  oku-n-ma]-ya      alış-tı.
          Hasan  book quick read-PASS-INF-DAT get.used.to-PST
       'Hasan got used to reading the book quickly.'

Note that control of the passive agent remains ungrammatical when the theme has an independent source of case. Nominalization of the embedded clause above the passive provides genitive case for the theme, but the result does not involve control, as illustrated by the felicitous continuation.

(27) Hasan kitab-ın    oku-n-ma-sı-nı              iste-di,   ama (o) kendisi
     Hasan book-GEN read-PASS-NMLZ-POSS-ACC want-PST but    he himself
          oku-mak    iste-me-di.
          read-NMLZ want-NEG-PST
       'Hasan wanted the book to be read, but he himself didn't want to read it.'

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[15] In many other languages, the impersonal pronoun is overt and does not trigger designated morphology within the clausal spine, so is not visible in nonfinite control clauses.

Fourth, consider binding of the reciprocal *birbirleri*.[16] As background, while the reflexive *kendi* is logophoric, the reciprocal *birbirleri* is not (Kornfilt 1997, 2001). Kornfilt provides 28a as illustration of the logophoric licensing of *kendi*; *birbirleri* cannot be so licensed (28b).

(28) a.  [Oya-nın kendi-si-ni$_i$    beğen-me-si]         Ahmed-in$_i$
         Oya-GEN self-3POSS-ACC admire-NMLZ-3POSS Ahmet-GEN
             hoş-un-a            git-ti.
             liking-3POSS-DAT go-PST
         'Oya's admiring self$_i$ was to Ahmet$_i$'s liking.'          (Kornfilt 2001:204)

   b. *[Öğrenci-nin birbirleri-ni$_i$    beğen-me-si]         öğretmen-ler-in$_i$
         student-GEN each.other-ACC admire-NMLZ-3POSS teacher-PL-GEN
             hoş-un-a            git-ti.
             liking-3POSS-DAT go-PST
         'The student's admiring each other$_i$ was to the teachers$_i$' liking.'

The following examples illustrate further, using typical logophoric contexts (see Sells 1987, Charnavel 2019); these examples use the reciprocal in the dative benefactive (29a) and postpositional benefactive (29b) constructions that we employ in our test cases below.[17]

(29) a.  Zavallı [Hasan ve  Ali]$_i$. *Anne-ler-i$_i$       birbirleri-ne$_i$   pilav
         poor   Hasan and Ali    mother-PL-POSS each.other-DAT pilaf
             pişir-me-yecek.
             cook-NEG-FUT
         'Poor [Hasan and Ali]$_i$. Their$_i$ mothers won't cook pilaf for each other$_i$.'

   b. *Çocuk-lar$_i$ [anne-ler-i-nin          birbirleri$_i$ için pilav
         child-PL     mother-PL-POSS-GEN each.other for   pilaf
             pişir-me-yeceğ-i-nden]   kork-uyor-lar.
             cook-NEG-FUT-POSS-ABL fear-PROG-PL
         'The children$_i$ are afraid that their$_i$ mothers won't cook pilaf for each other$_i$.'

As expected, 29a and 29b are grammatical with the logophoric reflexive *kendileri* in place of the nonlogophoric reciprocal *birbirleri*. Given that the reciprocal is not a logophor, but an anaphor that requires a syntactic binder, we use binding of the reciprocal as a test for syntactic projection.

The impersonal agent behaves as syntactically projected in that it can bind the reciprocal. One illustration contrasts oblique themes with themes that are accusative in the active and nominative in the passive. The following attested example involves the idiomatic expression *birbiri-ne gir-* 'fight tooth and nail', composed of the verb 'enter' and its dative reciprocal object 'each other'. With the passive morpheme the structure must be impersonal, given the oblique object, and the reciprocal is bound by the impersonal subject.

(30) Herkes-in     gör-eceğ-i    şekil-de     birbiri-ne       gir-il-ir
     everyone-GEN see-NMLZ-POSS manner-LOC each.other-DAT enter-PASS-AOR
         mi?
         Q
     'Why would people fight tooth and nail in a way everyone could see?'[18]

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[16] This can also appear as *birbiri*, without the plural suffix, to our knowledge without consequence.

[17] These are grammatical on the irrelevant interpretations 'Their mothers$_k$ won't cook pilaf for each other$_k$' and 'The children are afraid that their mothers$_k$ won't cook pilaf for each other$_k$'.

[18] Retrieved October 30, 2019, from https://www.haber61.net/trabzonspor/sosyal-medyada-trabzonspor-yoneticileri-birbirine-girdi-h298270.html.

In contrast, the verb 'beat' takes an accusative theme in the active; with the passive suffix the structure is a passive and the reciprocal theme is not bound.

(31) *Birbirleri   döv-ül-dü(-ler).
        each.other beat-PASS-PST-PL
          'Each other was/were beaten.'

Another illustration uses reciprocal beneficiaries. The examples in 32 must be impersonals: in 32a 'pilaf' is pseudo-incorporated, and in 32b 'dance' is unergative. The impersonal pronoun binds the reciprocal, and the sentences are grammatical.

(32) a. Bayram-lar-da birbirleri-ne    pilav pişir-il-ir.
         holiday-PL-LOC each.other-DAT pilaf cook-PASS-AOR
           'During holidays, people pilaf-cook for each other.'
     b. Düğün-ler-de    birbirleri-ne   dans ed-il-ir.
         wedding-PL-LOC each.other-DAT dance do-PASS-AOR
           'During weddings, it is danced for each other.'

The structure here is indeed anaphor binding, not reciprocal predicate formation (cf. Chierchia 1995b on Italian impersonal *si*). Reciprocal predicate formation uses the suffix *-(I)ş* (Kornfilt 1997:159 characterizes this as 'not very productive'). Furthermore, the reciprocal need not be an argument of the predicate; 33 illustrates embedding in a PP adjunct.

(33) a. Bayram-lar-da birbirleri için pilav pişir-il-ir.
         holiday-PL-LOC each.other for pilaf cook-PASS-AOR
           'During holidays, people pilaf-cook for each other.'
     b. Düğün-ler-de    birbirleri için dans ed-il-ir.
         wedding-PL-LOC each.other for dance do-PASS-AOR
           'During weddings, it is danced for each other.'

Binding of the reciprocal by the passive implicit agent, in contrast, is impossible.[19]

(34) a. *Pilav bayram-da   birbirleri-ne    pişir-il-di.
          pilaf holiday-LOC each.other-DAT cook-PASS-PST
           'During the holiday, pilaf was cooked for each other.'
     b. *Pilav bayram-da   birbirleri için pişir-il-di.
          pilaf holiday-LOC each.other for cook-PASS-PST
           'During the holiday, pilaf was cooked for each other.'

In sum, the impersonal agent behaves as syntactically projected in that it can bind a reciprocal, while the passive agent behaves as syntactically unprojected in that it cannot.

   Fifth, we find a contrast between passive and impersonal agents in the licensing of depictives.[20] The impersonal agent licenses a depictive, as illustrated here with a dative object verb and an unergative.

(35) a. Tatil      merkez-ler-i-nde, otobüs-e sarhoş bin-il-ir.
         vacation center-PL-CM-LOC bus-DAT drunk  board-PASS-AOR
           'At vacation spots, one boards the bus drunk.'

---

[19] The reciprocal is not subject-oriented.

   (i) Ben çocuk-lar-a$_i$  birbirleri$_i$-ni    göster-di-m.
        I     child-PL-DAT each.other-ACC show-PST-1SG
          'I showed the children$_i$ each other$_i$.'

[20] There is some debate on the licensing of depictives by the English passive agent; see Roeper 1987, Landau 2010, Pitteroff & Schäfer 2019, inter alia.

    b.  Sahil-ler-de,   hep       sarhoş  koş-ul-ur.
       beach-PL-LOC always drunk  run-PASS-AOR
         'On beaches, one always runs drunk.'

The passive agent, in contrast, does not license a depictive.

  (36)  a.  *Mektup (Ahmet tarafından) sarhoş yaz-ıl-dı.
         letter   Ahmet by       drunk  write-PASS-PST
           'The letter was written drunk (by Ahmet).'
      b.  *Böylesine önemli    karar-lar    asla   sarhoş tartış-ıl-ma-malı.
         such      important decision-PL never drunk  discuss-PASS-NEG-must
           'Decisions of such importance should never be discussed drunk.'

Turkish patterns like English in not allowing depictive licensing by the object of an ad-position, so the 'by'-phrase itself cannot license the depictive.

  (37)  Ben araba-yı Murat için sarhoş sür-dü-m.
     I     car-ACC Murat for  drunk drive-PST-1SG
       'I drove the car drunk for Murat.'
       NOT: Murat was drunk./YES: I was drunk.

The pattern of depictive licensing provides further evidence for projection of the agent in the impersonal but not in the passive.

    Sixth, consider adverbial gerundives expressing simultaneity with the verbal suffix *-arak*, henceforth ArAk clauses (see Özkaragöz 1980, Knecht 1985, Biktimir 1986, Kornfilt 1997).[21] The interpretation of the grammatical subject of the ArAk clause is de-termined by the grammatical subject of the matrix clause. The previous literature inves-tigates restrictions related to the status of the subject as underlying versus derived, without fully resolving the issue. Examples that match in voice and in the status of the subjects as underlying or derived, however, are uniformly accepted as grammatical. The following illustrate active predicates with thematic subjects.

  (38)  a.  Çocuk [sakız çiğne-yerek] anne-sin-i         öp-tü.
         child   gum chew-ARAK  mother-3SG.POSS-ACC kiss-PST
           'The child kissed his mother (while) chewing gum.'
      b.  Kız [(top) oyna-yarak] şarkı söyle-di.
         girl   ball play-ARAK   song sing-PST
           'The girl (while) playing (ball) sang.'          (Özkaragöz 1980:417)

Derived subjects are also possible; the following illustrate with the themes of unac-cusatives and passives.

  (39)  a.  Adam [sayıkla-yarak] öl-dü.
         man   rave-ARAK    die-PST
           'The man died raving.'                  (Biktimir 1986:62–63)
      b.  Çocuk [okşa-n-arak]      öp-ül-dü.
         child   caress-PASS-ARAK kiss-PASS-PST
           'The child was kissed (while) being caressed.'   (Biktimir 1986:62–63)

However, when the matrix grammatical subject is a passive theme, it does not allow for an ArAk clause with a null active theme.[22]

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[21] For other uses of *-arak*, see especially Kornfilt 1997.

[22] We have changed the verb to *anla*, which is a better choice for 'to understand', in our estimation. (Özkaragöz 1980 uses *anlaş*.)

(40) *Gazete    [anla-yarak]    oku-n-du.
      newspaper  understand-ARAK read-PASS-PST
        'The newspaper, (while pro) understanding (it), was read.'

(Özkaragöz 1980:414)

Nor does a matrix theme of an active transitive allow for an ArAk clause with a null un-accusative theme.

(41) *Adam çorba-yı  [kayna-yarak] servis  et-ti.
      man   soup-ACC  boil-ARAK     service do-PST
        'The man served the soup (while it was) boiling.'

Crucially, a matrix impersonal agent allows for an ArAk clause with a null subject of an active verb, whereas a matrix passive agent does not. Thus, 42 is grammatical because the matrix verb is unergative 'speak', hence an impersonal. Example 43 is ungrammatical because the matrix verb is transitive 'call', hence a passive.[23]

(42) [Sakız çiğne-yerek] hoca-yla    konuş-ul-maz.
      gum   chew-ARAK    teacher-with speak-PASS-NEG.AOR
        'One does not speak with the teacher while chewing gum.'

(Biktimir 1986:64)

(43) *[Sakız çiğne-yerek] hoca   öğrenci tarafından çağır-ıl-maz.
      gum   chew-ARAK    teacher student by         call-PASS-NEG.AOR
        'The teacher is not called by a student while (the student is) chewing gum.'

The passive remains ungrammatical with an inanimate matrix grammatical subject (44).

(44) *[Kahve iç-erek]    gazete    hoca   tarafından oku-n-ur.
      coffee drink-ARAK newspaper teacher by         read-PASS-AOR
        'The newspaper is read by a teacher while (the teacher is) drinking coffee.'

The theme of a matrix unaccusative impersonal allows an ArAk clause with a null theme of an unaccusative (45), indicating that the unaccusative impersonal theme is syntactically projected.

(45) [Sayıkla-yarak] öl-ün-ür.
      rave-ARAK       die-PASS-AOR
        'One dies raving.'                                    (Biktimir 1986:65)

Next, consider quantificational variability effects, whereby the interpretation of an argument is determined by a quantificational adverb. (See Lewis 1975, Heim 1982, Diesing 1992, de Swart 1993, Chierchia 1995a.) Quantificational variability effects in other languages are found with impersonal pronouns but not passive implicit agents (Chierchia 1995b, Malamud 2013, Rezac & Jouitteau 2016, inter alia), and Turkish shows exactly this pattern. In 46, 'bump into' takes a dative object, and hence forms an impersonal whose agent shows quantificational variability effects. In 47, 'push around' takes an accusative object in the active, and hence forms a passive whose agent does not show quantificational variability effects.

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[23] A referee asks if 43 improves if the 'by'-phrase is removed; it does not, unless 'teacher' is pseudo-incorporated, allowing for an impersonal analysis.

(46) Istanbul-da,   metrobüs durağı-nda  genellikle yolcu-lar-a
     Istanbul-LOC metrobus station-LOC usually     passenger-PL-DAT
       çarp-ıl-ır.
       bump.into-PASS-AOR
     'In Istanbul, at metrobus stops, one usually bumps into passengers.'
      (i)  YES: Most people bump into other passengers.
     (ii)  YES: People bump into other passengers at most times.

(47) Istanbul-da,   metrobüs durağı-nda  yolcu-lar       genellikle
     Istanbul-LOC metrobus station-LOC passenger-PL usually
       it-il-ir.
       push.around-PASS-AOR
     'In Istanbul, at metrobus stops, passengers are usually pushed around.'
      (i)  NOT: Most people push around other passengers.
     (ii)  YES: People push around other passengers at most times.

Finally, consider sluicing. In line with crosslinguistic patterns (Merchant 2001, inter alia), sluicing in Turkish requires voice matching.[24] When the antecedent is active, the WH-remnant must be a DP, as in 48a; when the antecedent is passive, the WH-remnant must be a 'by'-phrase, as in 48b.

(48) a. Dün        biri      Kemal-i     öldür-dü, ama tam olarak kim-di
      yesterday someone Kemal-ACC kill-PST but exactly      who-PST
        /*kim  tarafından-dı bil-mi-yor-um.
        /*who by-PST         know-NEG-PROG-1SG
      'Someone killed Kemal yesterday, but I don't know who/*by who.'
   b. Kemal dün        öldür-ül-dü,  ama tam olarak kim tarafından-dı
      Kemal yesterday kill-PASS-PST but   exactly      who by-PST
        /*kim-di    bil-mi-yor-um.
        /*who-PST know-NEG-PROG-1SG
      'Kemal was killed yesterday, but I don't know by who/*who.'

Strikingly, impersonals pattern as active for sluicing, despite the passive morphology. In 49, the antecedent is unergative, forming an impersonal with the passive morpheme; the WH-remnant must be a DP, and cannot be a 'by'-phrase.

(49) Dün        parti-de    çılgınlarca dans ed-il-di,      ama tam olarak
     yesterday party-LOC crazily     dance do-PASS-PST but   exactly
       kim-ler-di   / *kim-ler tarafından-dı hatırla-mı-yor-um.
       who-PL-PST / *who-PL by-PST         remember-NEG-PROG-1SG
     'Yesterday people danced like crazy in the party, but I don't remember exactly who/*by who.'

In summary, verbs suffixed with passive morphology have two distinct structures: (i) the passive, in which the agent is demoted; and (ii) the impersonal, in which the agent is syntactically projected as a null impersonal pronoun. We have seen eight tests supporting this analysis. The passive agent may be realized in a 'by'-phrase, may be nonhuman, cannot be controlled PRO, cannot bind a reciprocal, cannot license a depictive, does not allow for a null subject of an ArAk clause, is not subject to quantificational variability effects, and has a 'by'-phrase remnant in sluicing. The impersonal agent, in contrast, cannot be realized in a 'by'-phrase, cannot be nonhuman, can bind a reciprocal, can be controlled PRO, can license a depictive, does allow for a null subject of an

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[24] Turkish sluicing may retain tense and agreement morphology; see İnce 2006, inter alia.

ArAk clause, is subject to quantificational variability effects, and has a DP remnant in sluicing. Of the two constructions, the passive is more restricted in its distribution, applying only to verbs that have a structurally case-marked object in the active.[25]

Now we return to the prima facie passives of passives, and discover that the agent is demoted through passivization, while the theme is syntactically projected as a null impersonal pronoun. Focusing first on the theme, it is necessarily human (50) and cannot be expressed in a 'by'-phrase (51).

(50) a. #Burada tamir  ed-il-in-ir.
          here     repair do-PASS-PASS-AOR
          'Here one is repaired by one.'                                      (Knecht 1985:74)

     b. #Burada güd-ül-ün-ür.
          here     herd-PASS-PASS-AOR
          'Here one is herded.'

(51) a. Harp-te   askerler tarafından vur-ul-un-ur.
          war-LOC soldiers by          shoot-PASS-PASS-AOR
          NOT: 'In war, soldiers are shot by one.'                    (Knecht 1985:74)
          YES: 'In war, one is shot by soldiers.'

     b. Bu  oda-da      mahkum-lar tarafından döv-ül-ün-ür.
          this room-LOC prisoner-PL  by          beat-PASS-PASS-AOR
          NOT: 'In this room, one beats prisoners.'
          YES: 'In this room, one is beaten by prisoners.'

The grammatical interpretations of 51 illustrate that the agent, in contrast, can be expressed in a 'by'-phrase. It may also be nonhuman, as in 52. Example 52b is attested, in which the speaker is complaining about being bitten repeatedly by mosquitoes.[26]

(52) a. Orman-da (yılan-lar  tarafından) sok-ul-un-ur.
          forest-LOC  snake-PL by            bite-PASS-PASS-AOR
          'In the forest, one is bitten (by the snakes).'

     b. on  defa ısır-ıl-ın-ır          mı?
          ten time bite-PASS-PASS-AOR Q
          'How could one be bitten ten times?'

Thus, in this construction, the theme is syntactically projected as an impersonal pronoun, while the agent is demoted through the passive. It is thus an impersonal of a passive, not a passive of a passive. As predicted, the impersonal theme may be controlled by a matrix impersonal subject. In 53, the impersonal subject of 'want' controls the impersonal theme of 'shoot', whereas the demoted agent of 'shoot' is expressed in a 'by'-phrase.[27]

(53) Harp-te  IMP$_i$ [PRO$_i$ kimse   tarafından  vur-ul-un-mak]
      war-LOC        PRO anyone by          shoot-PASS-PASS-INF
            iste-n-mez.
            want-PASS-NEG.AOR
          'In war, one does not want to be shot by anyone.'

In addition, the impersonal theme in the impersonal of the passive may bind a reciprocal.

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[25] We take this to be a low-level, language-particular syntactic fact, as languages differ in this regard; indeed, we have seen Turkish-internal variation. In the analysis of the passive developed in §5, such restrictions can be encoded in the selectional properties of the passive Voice head.

[26] Retrieved January 28, 2017, from https://tr.instela.com/bu-mevsimde-hala-ortalikta-gezen-sivr\isinek ---13409259.

[27] Control is indeed obligatory here. For example, this sentence cannot express the natural situation in which the soldiers' loved ones back home do not want the soldiers to be shot.

(54) Hastane-ler-de  doktor-lar tarafından birbirleri-nin    yan-ı-nda         tedavi
     hospital-PL-LOC doctor-PL  by          each.other-GEN side-3POSS-LOC treat
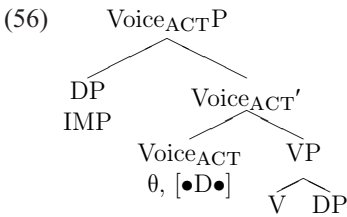        ed-il-in-ir.
        do-PASS-PASS-AOR
     'In hospitals, people*i* are treated by doctors beside each other*i*.'

Finally, the theme in the impersonal of the passive licenses depictives.

(55) Tatil-ler-de      polis   tarafından sarhoş yakala-n-ıl-ır.
     holiday-PL-LOC police  by          drunk  catch-PASS-PASS-AOR
        'During holidays, people are caught drunk by the police.'

In summary, the apparent double passive in Turkish does not involve passivization of a passive, demoting both the agent and the theme. Instead, the language uses a single suffix for passives, in which the agent is demoted, and impersonals, which exhibit a null, impersonal pronoun syntactically projected in argument position. The apparent double passives have demotion of the agent through the passive, triggering one iteration of the suffix, and an impersonal pronoun as the theme, triggering a second suffix. Crucially, the passive applies quite narrowly in the language, demoting only the agent of verbs with a structurally case-marked object in the active (for our primary consultants). Therefore, although Turkish appeared to counterexemplify Perlmutter and Postal's proposed generalization that passives may not passivize, upon closer inspection Turkish confirms it.

Before continuing, we consider further details of the syntactic analysis of the Turkish impersonal marked with the 'passive' morpheme.[28] (The semantics of the impersonal is beyond the scope of this article; see Rezac & Jouitteau 2016 for a promising approach.) As we have seen, the impersonal involves a null impersonal pronoun generated in argument position; in a transitive clause, it is generated as the agent. In the following tree we adopt the proposal of Kratzer 1996 and subsequent, whereby the external θ-role is introduced by a functional head Voice;[29] the active Voice selects for a DP specifier, and we encode this selection using the feature [•D•].[30]

(56)    Voice_ACT P
       /          \
     DP          Voice_ACT'
     IMP        /         \
          Voice_ACT        VP
          θ, [•D•]        /  \
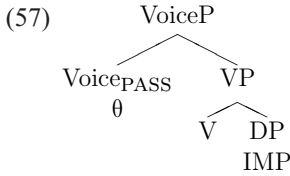                         V    DP

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[28] The literature on impersonals in other languages is rich; see inter alia Cinque 1988, Chierchia 1995b, D'Alessandro 2007 on Italian *si*; Dobrovie-Sorin 1998 on several Romance languages; Holmberg 2010 on Finnish; Hoekstra 2010 on Frisian *men*; McCloskey 2007 on Irish; and Malchukov & Siewierska 2011 for a typological overview. Recent syntactic analyses (Egerland 2003, Ackema & Neeleman 2018, Fenger 2018, inter alia) classify impersonals into two types: one with more functional structure, including English *one*, Frisian *men*, and Icelandic *maður*; and one with less, including German, Norwegian, and Danish *man*. Within this bifurcation, the Turkish impersonal marked with the 'passive' morpheme patterns with the latter type that contains less functional structure. Turkish also exhibits a second impersonal pronoun, *insan* 'human', which patterns with the former type, with more functional structure. See Akkuş 2021.

[29] We leave aside as orthogonal the functional projection vP, which introduces causative semantics; see, for example, Pylkkänen 2008, Legate 2014.

[30] The use of features for selection appears in Chomsky 1965; an early revival in the MINIMALIST framework is Adger 2003. See Müller 2010 for the bullet notation.
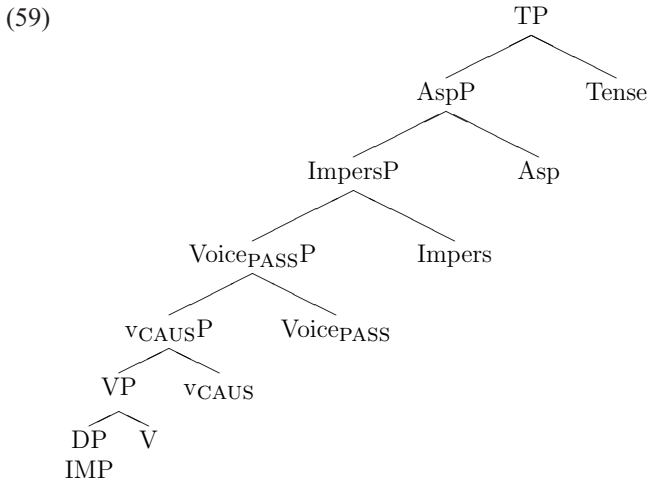
The impersonal pronoun may also be generated in the thematic object position, and so the impersonal may apply to unaccusatives and passives, as in 57. In 57 we assume the analysis of the passive to be developed in §5, whereby the passive is a Voice head that introduces the external θ-role, but does not select for a DP specifier.

(57)

```
              VoiceP
             /      \
     Voice_PASS      VP
         θ          /  \
                   V    DP
                        IMP
```

We must now explain the key fact we started with: the appearance, in the impersonal, of morphology syncretic with the passive morphology. This impersonal morphology is positioned adjacent to the passive, farther from the verbal root than the causative, and closer to the verbal root than aspect and tense. This is illustrated in 58; the causative -*dur* appears directly on the root, followed by the two 'passive' suffixes, followed by the progressive aspect -*uyor*, and finally the past tense -*du*.

(58) Harp-te   asker-ler   tarafından   vur-dur-ul-un-uyor-du.
     war-LOC soldier-PL by          shoot-CAUS-PASS-PASS-PROG-PST
        'In war, one used to be made to shoot by soldiers.'

Assuming the MIRROR PRINCIPLE (Baker 1985), this morpheme ordering is straightforwardly captured once we propose a designated impersonal functional projection, ImpersP, dominating VoiceP. The morphology glossed as 'passive' is the realization of Impers$^0$ and of Voice$_{PASS}$$^0$. Tree 59 illustrates, taking into account the right-headed nature of Turkish (all other trees abstract away from headedness).[31]

(59)

```
                                         TP
                                        /  \
                                     AspP   Tense
                                    /    \
                               ImpersP    Asp
                              /       \
                     Voice_PASS P     Impers
                     /         \
               v_CAUS P      Voice_PASS
               /     \
             VP      v_CAUS
            /  \
          DP    V
          IMP
```

The morphological syncretism between Impers$^0$ and Voice$_{PASS}$$^0$ is not due to an identity of function in the synchronic grammar. Crosslinguistically, there is a historical relationship between passives and impersonals, due to the overlap in the appropriate discourse

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[31] We cannot distinguish the passive morpheme from the impersonal morphophonologically. We place the impersonal above VoiceP because it licenses the highest argument in the verb phrase, be it the agent or the theme; see below. Thus it must dominate VoiceP, rather than being a subtype of VoiceP, as suggested by a referee.

situations for use of each; this can result in an overlap in morphological realization. (See Malchukov & Siewierska 2011, as well as the citations in n. 28.) Unlike Voice$_{PASS}^0$, Impers$^0$ is not involved in argument introduction or demotion. Its function is to license the impersonal pronoun.

We treat the need for licensing of the impersonal pronoun like the need for licensing of pro by agreement. This is supported by the fact that the overt impersonal in Turkish, *insan* (n. 28 and Akkuş 2021), does not occur with the Impers$^0$ licensing head.

(60) İnsan   oraya gid-(*il)-ir   mi hiç?
       human there  go-PASS-AOR Q   ever
          'Why would one ever go there?'

Additionally, in Irish, designated impersonal agreement licenses the null impersonal pronoun in the same way that agreement licenses pro in Irish (see McCloskey 2007). The literature on pro-drop is quite rich; our conception falls under the class of proposals that treats the phenomenon as involving a null pronoun that requires licensing (Rizzi 1982, 1986, McCloskey & Hale 1984, Jaeggli & Safir 1989, inter alia), as opposed to poor agreement that requires licensing (Speas 1994, 2006) or rich agreement itself serving as the interpretable pronoun (Jelinek 1984, Alexiadou & Anagnostopoulou 1998, inter alia).[32] Within this class of approaches, various implementations are compatible with our proposal.

For concreteness, we adopt the distinction from Pesetsky & Torrego 2007 between interpretability and valuation of features, whereby an interpretable feature receives a semantic interpretation, while a valued feature is inherently specified on the lexical item rather than determined in the course of the derivation. This provides a natural encoding of the licensing relationship in terms of feature valuation.[33] The licenser, Impers$^0$ (or agreement, in the case of pro-drop), bears valued but uninterpretable features, while the features of the impersonal pronoun are unvalued but interpretable. In the course of the derivation, Impers$^0$ undergoes agreement with the impersonal pronoun, and values its features. This allows the pronoun to be properly interpreted in the semantic component. Specifically, Impers$^0$ bears the uninterpretable valued φ-feature [human], while the impersonal pronoun bears interpretable unvalued φ-features; agreement between Impers$^0$ and the impersonal pronoun results in the interpretable φ-features of the impersonal pronoun being valued to [human]. We implement this agreement operation through the operation AGREE, Chomsky 2000 and subsequent, which operates on closest c-command. Our approach minimally differs from Pesetsky & Torrego 2007 in allowing both uninterpretable and unvalued features to serve as probes.[34] We propose Agree applies as follows.

(61) Agree
       a. An underdetermined feature F (uninterpretable or unvalued) on a head H
          (probe) scans its c-command domain for the closest instance of F (goal) to
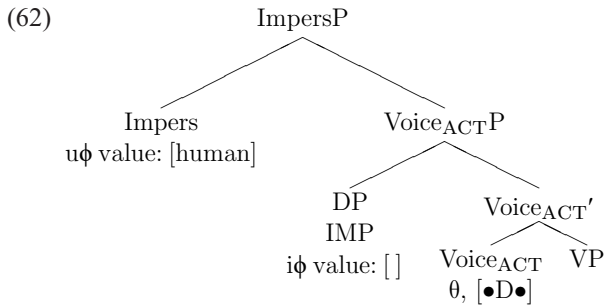          establish a relation.

[32] We leave aside, as not germane, radical pro-drop, which exists in the absence of identifying morphology. See, for example, Huang 1984, Jaeggli & Safir 1989, Neeleman & Szendröi 2007.

[33] This solves the problem raised by Holmberg 2005 that the traditional idea of pro-drop being licensed by agreement does not mesh well with the features of the pronoun being interpretable and the features of agreement uninterpretable (Chomsky 1995b and subsequent).

[34] Pesetsky & Torrego 2007 limits probes to unvalued features; however, this is not crucial to that theoretical argumentation or empirical analysis. A referee suggests instead that the unvalued φ-features of the impersonal pronoun initiate the probe operation upward. This technical implementation of the agreement between the impersonal pronoun and Impers$^0$ strikes us as natural if upward Agree is an operation of the grammar; see Preminger 2013, Wurmbrand 2014, Bjorkmann & Zeijlstra 2019, inter alia.

  b.  The probe-goal relation repairs underdetermined features, marking unin-
      terpretable features for deletion from the LF branch, and sharing the val-
      ued features with the unvalued features.

Thus, the uninterpretable valued $\phi$-feature of $\text{Impers}^0$ initiates the Agree operation; it probes down the tree and finds the impersonal pronoun, whereupon $\text{Impers}^0$ values the $\phi$-feature of the impersonal pronoun, and the impersonal pronoun checks the uninterpretable feature of $\text{Impers}^0$, marking it for deletion from the LF (logical form) branch.[35]

(62)

```
                        ImpersP
                       /        \
                      /          \
                  Impers        Voice_ACT P
              uφ value: [human]    /      \
                                  /        \
                                DP        Voice_ACT ′
                                IMP        /       \
                          iφ value: [ ]  Voice_ACT   VP
                                         θ, [●D●]
```

Our proposal thus follows Landau 2015, which treats a variety of pronominals, including pro and PRO, as pronouns that lack features and therefore must acquire them in the course of the derivation (MINIMAL PRONOUNS, in the sense of Kratzer 2009). The features acquired determine the behavior and pronunciation of the pronominal. We thereby also explain the fact from 25 that the impersonal pronoun can be controlled PRO. The impersonal pronoun and PRO are fundamentally the same: pronouns with interpretable but unvalued features that must be valued in the course of the derivation. The impersonal pronoun is valued by $\text{Impers}^0$, and PRO by its controller;[36] when the controller is an impersonal pronoun, as in 25, the features of $\text{Impers}^0$ and the features of the controller are compatible, since the controller is itself an impersonal pronoun.[37]

  Finally, we consider restrictions on the distribution of the impersonal pronoun. First, the impersonal pronoun must be the highest argument in the verb phrase; it cannot appear as the theme of an active transitive verb. (For this restriction on impersonal pronouns of this type in other languages, see n. 28.)[38]

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[35] The lack of person/number/gender $\phi$-features explains why the impersonal pronoun triggers default agreement; see Akkuş 2021 for supporting discussion. Our proposal follows Egerland 2003 and Rezac & Jouitteau 2016, for example, for the impersonal pronoun bearing only [human]; see references in n. 28 for related alternatives.
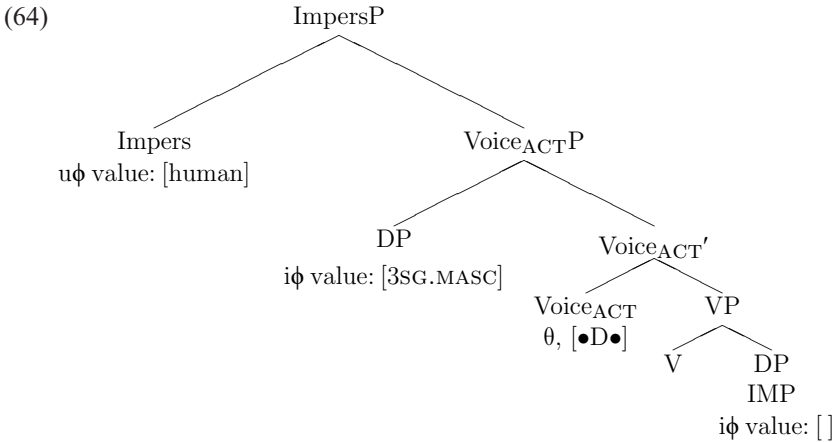
[36] Indirectly for Landau 2015; see that work for details.

[37] This predicts it to be possible for the embedded ImpersP (realized as the passive morpheme) to be omitted in 25, with the [human] value of the $\phi$-features coming solely from the controller. This is indeed possible, although using the embedded ImpersP is preferred.

[38] This distribution is reminiscent of the distribution of PRO, which is limited to the grammatical subject position (Chomsky 1965, Zaenen et al. 1985, Chomsky & Lasnik 1993, Manning 1996, inter alia). For our primary consultants, we have not been able to distinguish the highest argument from the grammatical subject; when the highest argument is an oblique, which cannot become the grammatical subject, a lower object moves over the oblique, thereby becoming both the highest argument and the grammatical subject. (See Tonyalı 2015 for related discussion.) These can potentially be teased apart, however, for our two consultants who allow impersonal passives of verbs with oblique objects. One suggested the following involving the dative object verb 'spit'; the context is a visit to a zoo in which a man is angry because a llama spat at his daugh-

(63) Harp-te  düşman hızlı     vur-ul-ur.
     war-LOC enemy   quickly shoot-PASS-AOR
       NOT: 'In war, the enemy shoots one quickly.'
       (YES: 'In war, the enemy is shot quickly.')

For the Turkish null impersonal pronoun, we take this distribution to be due to locality—the impersonal pronoun must be the closest DP to its licenser outside the verb phrase (see Landau 2015 for a similar approach to PRO). The following tree illustrates how this is captured on our approach. If the impersonal pronoun is generated in the object position of an active, transitive verb, the agent is the most local DP to Impers$^0$. Hence, when Impers$^0$ probes for ϕ-features, it will find the agent. However, the agent has its own interpretable and valued ϕ-features (the 3SG of 'enemy' in 63); hence the agreement operation fails.[39] Moreover, the impersonal pronoun in object position is left with unvalued features. The result is ungrammaticality.[40]

(64)

```
                    ImpersP
                   /       \
              Impers        Voice_ACT P
         uϕ value: [human]   /       \
                           DP        Voice_ACT ′
                    iϕ value:        /        \
                    [3SG.MASC]   Voice_ACT    VP
                                 θ, [●D●]     /  \
                                             V    DP
                                                  IMP
                                             iϕ value: [ ]
```

The second restriction on the distribution of the impersonal becomes apparent in considering verbs with a structurally case-marked object in the active. A referee observes an apparent complementarity in the passive and impersonal, in that for verbs with a structurally case-marked object in the active, the passive morpheme must be a realiza-

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ter. Example (i) is the impersonal passive; (ii) is the impersonal of the impersonal passive—the agent of 'spit' has been demoted and appears as a 'by'-phrase, while the theme is an impersonal dative object.

  (i) %Ben-im    kız-ım-ın           yüz-ü-ne         tükür-ül-dü! Özür    bekl-iyor-um!
       1-GEN.1SG daughter-1SG.POSS-GEN face-3SG.POSS-DAT spit-PASS-PST apology expect-PROG-1SG
       'My daughter's face was spat at! I expect an apology!'
  (ii) %Bura-ya gir-me-yin!     Bura-da  lama-lar tarafından tükür-ül-ün-üyor.
       here-DAT enter-NEG-2SG here-LOC llama-PL by       spit-PASS-PASS-PROG
       'Don't go in here! One gets spat at by the llamas here.'

For this speaker, the impersonal need only be the highest argument, not the grammatical subject. Our second consultant who allows (i), however, finds (ii) marginal.

[39] A referee suggests that the agent here is best characterized as a defective intervener, in the sense of Chomsky 2000. The same referee wonders whether a higher oblique argument would similarly act as a defective intervener for a lower object. However, unlike the agent, a higher oblique argument bears inherent case, allowing the lower object to raise over it (within the verb phrase; e.g. McGinnis 2001) and become the grammatical subject of the passive. No intervention is expected.

[40] Similar considerations rule out an active transitive with both the agent and the theme as impersonal pronouns. Assuming Impers$^0$ can only license a single DP, the theme will fail to be licensed due to the intervention of the agent, even if ImpersP could iterate, as suggested by a referee.

tion of passive voice, while for all other verbs, the passive morpheme must be a realization of the impersonal. While this complementarity does hold true for our ten primary consultants, it is not a core property of these constructions. Recall that we encountered two speakers who allow a broader range of verbal predicates to passivize; importantly, the range of the impersonal is not thereby narrowed. For example, these speakers allow 'kick' with a 'by'-phrase, illustrating the availability of a passive structure, or with an agent-licensed reciprocal, attesting to the availability of an impersonal structure. (The former is ungrammatical for our primary consultants.)

(65) %Top-a      çocuk-lar tarafından vur-ul-du.
         ball-DAT child-PL    by          kick-PASS-PST
         'The ball was kicked by the children.'

(66) [Context: describing a particular rule in an altruistic game, in which for each kicking of the ball, the other person wins points]
         Top-a      birbiri       için vur-ul-ur.
         ball-DAT each.other  for  kick-PASS-AOR
            'People kick the ball for each other.'

Surprisingly, the impersonal structure cannot apply to a transitive verb in the active, retaining accusative case on the object, for any of the speakers we consulted.

(67) *Bu kitab-ı      hızlı      oku-n-ur.
          this book-ACC quickly read-PASS-AOR
            'One reads this book quickly.'

In this, the Turkish null impersonal is unlike impersonals discussed for other languages, and unlike the Turkish overt impersonal, *insan* (see Akkuş 2021).[41]

   The restriction seems related to the syncretism between the impersonal morpheme and the passive morpheme, but needs to be encoded in the grammar. For now we state this as an honest stipulation: Impers$^0$ selects for a VoiceP lacking accusative case assignment; the VoicePs associated with unergatives, oblique object verbs, CP object verbs, unaccusatives, and passives all meet this criterion. The VoiceP associated with regular transitive verbs does not.[42]

   To summarize, the null impersonal pronoun in Turkish is generated as the highest argument in the verb phrase and undergoes licensing with a designated functional projection generated above VoiceP. The head of this impersonal projection is syncretic with the passive morpheme, and may cooccur with it.

   Returning to the main thread, Turkish was our first potential exemplar of a passive of a passive. We have demonstrated that it is instead an impersonal of a passive, in which the theme is not demoted, but rather syntactically projected as a null impersonal pronoun.

   In the following section, we turn to the second oft-cited potential passive of a passive, in Lithuanian. We show that in this case as well, the theme is not demoted, but rather syntactically projected into argument position.

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[41] Recent work on Sakha (Turkic: Siberia) building on the present proposal (Tan & Kühlert 2019) argues that the Sakha passive morpheme is also syncretic between a passive and an impersonal, but allows transitive impersonals with accusative objects. This again suggests that the restriction is not a deep principle of (Turkic) grammar, but an unusual quirk of Turkish.

[42] Alternative formulations are possible, but we must prevent verbs that take a structurally case-marked object in the active from occurring with an impersonal agent, regardless of the case on the object. If an impersonal agent were possible with the theme in the default nominative, these verbs would have passed the tests for a projected impersonal pronoun, contrary to fact. On our approach, we assume this is handled by a selectional relationship between the verb and Voice.

**3.** Lithuanian. In this section, we consider the purported passive of a passive in Lithuanian (Nerbonne 1982, Timberlake 1982, Keenan & Timberlake 1985, Baker et al. 1989, Bruening 2013, Kiparsky 2013), building on recent literature on Lithuanian (Blevins 2003, Lavine 2006, 2010, Spraunienė et al. 2015) that has not been sufficiently appreciated in the theoretical work on passives. Specifically, Lithuanian exhibits an evidential construction whose morphosyntax partially overlaps with the morphosyntax of the passive. This evidential may combine with both active verb phrases and passive verb phrases; the combination of the evidential with the passive verb phrase is what has been misanalyzed as a passive of a passive.[43] We provide additional arguments that the purported passive of a passive is an evidential of a passive, and additional data supporting the existing arguments.

An example of the Lithuanian construction in question is provided in 68, gloss and translation retained from the source. Both the agent and the theme appear in genitive case, which is characteristic of the 'by'-phrase in the passive.

(68) To      lapelio  būta      vėjo      nupūsto.
     that.GEN leaf.GEN be.PASS.NOM wind.GEN blow.PASS.GEN
       'That leaf was blown down by the wind.' ('by that leaf there was blown
         down by the wind')               (Kiparsky 2013:24)

Example 69 illustrates the active/passive alternation; the theme is promoted to the nominative grammatical subject, and the agent is demoted to a genitive adjunct.

(69) a. Tėv-as        kvieči-a     sveči-us.
       father-M.SG.NOM invite-PRS.3 guests-M.PL.ACC
        'Father invites guests.'
    b. Sveči-ai        yra    (tėv-o)
       guests-M.PL.NOM be.PRS.3   father-M.SG.GEN
         kviečia-m-i.
         invite-PRS.PASS.PTCP-M.PL.NOM
        'Guests are invited (by father).'      (Ambrazas et al. 1997:277)

We begin by distinguishing the evidential from the passive. Both exhibit a lexical verb in the passive participle form, present *-m* or past *-t*; in the passive the participle optionally agrees with the nominative grammatical subject,[44] whereas in the evidential the participle must occur in the nonagreeing neuter form. The passive exhibits a finite auxiliary that is optional in present tense, but obligatory in past tense; no finite auxiliary is possible in the evidential, although an auxiliary in the neuter passive participle form may be found with nonverbal predicates (82–83 below). These properties are illustrated for the passive in 70a and the evidential in 70b. The agent is realized in both by 'wind' in the genitive case.[45]

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[43] Nunes 1994 presents a different nonpassive analysis that does not consider the empirical arguments presented here. Geniušienė 2006 is a brief descriptive study; see Ambrazas 1994, Gronemeyer 1997, Holvoet 2001, Aikhenvald 2004, Wiemer 2006, inter alia, for the diachrony and for the perspective from the typology and analysis of evidentiality.

[44] For some speakers this optionality is limited to inanimates.

[45] Evidentials of transitive verbs, like in 70b, are less common than evidentials of intransitive verbs, and are limited to the eastern dialects (Ambrazas et al. 1997:281).

(70) a.  T-as              lapel-is          *(buv-o)      vėj-o
         that-M.SG.NOM leaf-M.SG.NOM *(be-PST.3) wind-M.SG.GEN
             nupūs-t-as.
             blow-PST.PASS.PTCP-M.SG.NOM
         'That leaf was blown down by the wind.'
     b.  Vėj-o                (*buv-o)      nupūs-t-a                t-as
         wind-M.SG.GEN (*be-PST.3) blow-PST.PASS.PTCP-N that-M.SG.NOM
             lapel-is          vakar.
             leaf-M.SG.NOM  yesterday
         'The wind must have blown down that leaf yesterday.'

We use examples in the past, where passives are easily distinguished from evidentials in that the passive has a finite auxiliary and the evidential does not. The two constructions also differ in interpretation—the evidential is inferential based on visual evidence (Ambrazas et al. 1997:281–84, Lavine 2010, Spraunienė et al. 2015, inter alia), while the passive is neutral with respect to evidentiality.

   We provide seven arguments that the genitive in the passive is a PP adjunct, whereas the genitive in the evidential is a DP argument. First, the genitive is obligatory in the evidential, but optional in the passive (Blevins 2003, Lavine 2006). Thus, 71 is felicitous in a context that has not established the identity of the agent, but 72 is not.

   (71) Vaik-as           buv-o      nuramin-t-as.
        child-M.SG.NOM be-PST.3 calm-PST.PASS.PTCP-M.SG.NOM
          'The child was calmed down.'
   (72) #Nuramin-t-a              vaik-as.
         calm-PST.PASS.PTCP-N child-M.SG.NOM
           lit. 'Must have calmed the child down.'

Example 72 becomes felicitous in a pro-drop context, such as the response to 73.

   (73) K-as              padary-t-a            Ing-os          vakar?
        what-M.SG.NOM do-PST.PASS.PTCP-N Inga-F.SG.GEN yesterday
          'What must Inga have done yesterday?'

This pattern is predicted if the genitive in the passive is a 'by'-phrase, hence an optional PP adjunct, whereas the genitive in the evidential is a grammatical subject, hence obligatory modulo pro-drop.

   Second, in the neutral word order, the genitive is initial in the evidential, but occurs finally or immediately before the participle in the passive (Ambrazas et al. 1997:277–84, Lavine 2006).

   (74) a.  Plyt-os            buv-o      (darbinink-ų)      vež-t-os
            brick-F.PL.NOM be-PST.3  worker-M.PL.GEN cart-PST.PASS.PTCP-F.PL.NOM
              (darbinink-ų).
              worker-M.PL.GEN
            'The bricks were carted by the workers.'
        b.  Darbinink-ų          vež-t-a                      plyt-os              vakar.
            worker-M.PL.GEN cart-PST.PASS.PTCP-N brick-F.PL.NOM yesterday
              'The workers must have carted the bricks yesterday.'

Other placement possibilities receive a marked interpretation.[46]

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[46] Geniušienė 2006:46 characterizes the genitive-initial word order in the passive as placing 'particular emphasis on the rhematic subject-patient'.

(75) a. Darbinink-ų      buv-o    vež-t-os                        plyt-os.
worker-M.PL.GEN be-PST.3 cart-PST.PASS.PTCP-F.PL.NOM brick-F.PL.NOM
'By the workers, the bricks were carted.'

b. Plyt-os           vež-t-a                darbinink-ų      vakar.
brick-F.PL.NOM cart-PST.PASS.PTCP-N worker-M.PL.GEN yesterday
'It was the bricks that workers must have carted yesterday.'

Third, the two genitives behave differently for binding of the subject-oriented anaphor *savo* (Lavine 2006, 2010). The following illustrate the subject-orientation. In 76a, *savo* is bound by the grammatical subject 'Domantas', and a pronoun cannot be used instead; in 76b, *savo* cannot be bound by the object 'employees', and a pronoun must be used instead.

(76) a. Domant-as$_i$      rūšiav-o   tarnautoj-us        pagal
Domantas-M.SG.NOM divide-PST.3 employee-M.PL.ACC according.to
savo$_i$  / *jo$_i$     įsitikinim-us.
self.GEN / *his.GEN belief-M.PL.ACC
'Domantas$_i$ divided employees according to his$_i$ own beliefs.'

b. Domant-as          rūšiav-o   tarnautoj-us$_i$      pagal
Domantas-M.SG.NOM divide-PST.3 employee-M.PL.ACC according.to
jų$_i$      / *savo$_i$    įsitikinim-us.
their.GEN / *self.GEN belief-M.PL.ACC
'Domantas divided employees$_i$ according to their$_i$ beliefs.'

(Timberlake 1982:515)

Before applying this test, we ensure that *savo* is not a logophor. Examples 77–79 illustrate that *savo* cannot be bound by typical logophoric centers (see Sells 1987, Charnavel 2019).

(77) Vargš-as         Domant-as$_i$         nuliūd-o.          Danut-ė
poor-M.SG.NOM Domantas-M.SG.NOM become.upset-PST.3 Danutė-F.SG.NOM
kritikav-o    jį$_i$       priešais jo$_i$   / *savo$_i$    motin-ą.
criticize-PST.3 him.ACC in.front his.GEN / *self.GEN mother-F.SG.ACC
'Poor Domantas$_i$ became upset. Danutė criticized him$_i$ in front of his$_i$ mother.'

(78) Danut-ė$_i$          man    pasak-ė, kad jos$_i$    / *savo$_i$    nam-as
Danutė-F.SG.NOM me.DAT say-PST.3 that her.GEN / *self.GEN house-NOM
sudeg-ė.
burn.down-PST.3
'Danutė$_i$ told me that her$_i$ house burned down.'

(79) Danut-ė$_i$            bij-o,    kad jos$_i$    / *savo$_i$    motin-a
Danutė-F.SG.NOM afraid-PST.3 that her.GEN / *self.GEN mother-F.SG.NOM
bus       pikt-a.
be.FUT.3 angry-F.SG.NOM
'Danutė$_i$ is afraid that her$_i$ mother will be angry.'

Therefore, *savo* is indeed a subject-oriented reflexive, not a logophor.

Applying this test to the evidential, the genitive agent behaves as a subject DP in serving as a binder for *savo* (Timberlake 1982, Lavine 2006, 2010, Spraunienė et al. 2015), as in 80a. The nominative theme, in contrast, cannot bind *savo*, as in 80b.[47]

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[47] Hence the nominative theme is not the grammatical subject, pace Gronemeyer 1997.

(80) a. Vakar      Domant-o$_i$              rūšiuo-t-a
        yesterday Domantas-M.SG.GEN divide-PST.PASS.PTCP-N
            tarnautoj-ai             pagal        savo$_i$    / *jo$_i$
            employee-M.PL.NOM according.to self.GEN / *his.GEN
            įsitikinim-us.
            belief-M.PL.ACC
        'Yesterday Domantas$_i$ must have divided employees according to his$_i$
          beliefs.'
     b. Vakar      Domant-o             rūšiuo-t-a
        yesterday Domantas-M.SG.GEN  divide-PST.PASS.PTCP-N
            tarnautoj-ai$_i$          pagal        jų$_i$      / *savo$_i$
            employee-M.PL.NOM according.to their.GEN / *self.GEN
            įsitikinim-us.
            belief-M.PL.ACC
        'Domantas must have divided employees$_i$ according to their$_i$ beliefs.'

In the passive, in contrast, there is variation in judgments. According to Timberlake
1982 and Sprauniene et al. 2015, the genitive passive agent can bind *savo*, whereas
Lavine 2006, 2010 report this as ungrammatical. All of our consultants agree with the
latter judgment: the genitive in the passive cannot bind *savo* (81a). Furthermore, the
nominative theme can bind *savo* (81b), thus patterning as a grammatical subject.[48]

(81) a. Tarnautoj-ai              buv-o    rūšiuo-t-i
        employees-M.PL.NOM be-PST.3 divide-PST.PASS.PTCP-M.PL.NOM
            Domant-o$_i$              pagal        jo$_i$    / *savo$_i$
            Domantas-M.SG.GEN according.to his.GEN / *self.GEN
            įsitikinim-us.
            belief-M.PL.ACC
        'The employees were divided by Domantas$_i$ according to his$_i$ beliefs.'
     b. Tarnautoj-ai$_i$          buv-o    rūšiuo-t-i
        employee-M.PL.NOM be-PST.3 divide-PST.PASS.PTCP-M.PL.NOM
            Domant-o                 pagal        savo$_i$    / jų$_i$
            Domantas-M.SG.GEN according.to self.GEN / their.GEN
            įsitikinim-us.
            belief-M.PL.ACC
        'The employees$_i$ were divided by Domantas according to their$_i$ beliefs.'

We hypothesize that the variation in judgments results from the subject-orientation of
*savo*. A DP embedded in a 'by'-phrase typically can c-command out, and so is a poten-
tial binder (see e.g. Pesetsky 1995). However, for our consultants, and those of Lavine,
the subject-orientation of *savo* requires that the binder be the grammatical subject,
which the 'by'-phrase is not. For the consultants of Timberlake and Sprauniene et al., in
contrast, a thematic subject suffices, allowing the 'by'-phrase to bind *savo*. Overall, we
find a clear contrast between the constructions on this test. The genitive in the eviden-
tial may bind the subject-oriented *savo* for all speakers, whereas the genitive in the pas-
sive for some speakers may not bind *savo*. The nominative theme in the evidential
cannot bind *savo*, whereas the nominative theme in the passive can bind *savo*.

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[48] While the pronoun is normally anti-subject-oriented, it can exceptionally be bound by a third-person
theme of the passive, as in 81b, but not by a first- or second-person theme, nor by a third-person theme of an
unaccusative; see Šereikaitė 2020b. Our argumentation focuses on the subject-oriented anaphor, rather than
the pronoun.

Fourth, the genitive thematic subject in the evidential patterns as a DP argument rather than a PP adjunct in that it triggers case, number, and gender agreement on nominal and adjectival predicates. Example 82a illustrates agreement of a nominal predicate with the evidential genitive subject; compare nonevidential 82b showing agreement with the nominative subject. Example 83 illustrates with an adjectival predicate.

(82) a. Jo   tėv-o    bū-t-a    medžiotoj-o.
   his.M.SG.GEN father-M.SG.GEN be-PST.PASS.PTCP-N hunter-M.SG.GEN
    '(I heard) his father was a hunter.'    (Ambrazas et al. 1997:283)

  b. Jo   tėv-as   buv-o medžiotoj-as.
   his.M.SG.GEN father-M.SG.NOM be-PST.3 hunter-M.SG.NOM
    'His father was a hunter.'

(83) a. Puš-ų   bū-t-a    stor-ų.
   pine.tree-F.PL.GEN be-PST.PASS.PTCP-N thick-F.PL.GEN
    'The pine trees turned out to be thick.'  (Ambrazas et al. 1997:283)

  b. Puš-ys   buv-o stor-os.
   pine.tree-F.PL.NOM be-PST.3 thick-F.PL.NOM
    'The pine trees were thick.'

In contrast, nominal and adjectival predicates cannot passivize, regardless of agreement.

(84) a. *Jo   tėv-o    buv-o medžiotoj-o  /
   his.M.SG.GEN father-M.SG.GEN be-PST.3 hunter-M.SG.GEN /
    medžiotoj-as.
    hunter-M.SG.NOM
    'There was being a hunter by his father.'

  b. *Puš-ų   buv-o stor-ų  / stor-os.
   pine.tree-F.PL.GEN be-PST.3 thick-F.PL.GEN / thick-F.PL.NOM
    'There was being thick by the pine trees.'

Our fifth argument comes from case transmission in control. In Lithuanian, case transmission is obligatory for subject control, and optional for object control (see Vaikšnoraitė 2015).[49] This is illustrated in 85 for the subject control verb 'promise' and the object control verb 'convince'. Example 85b also shows that in the absence of case transmission, PRO triggers dative case agreement.

(85) a. Marij-a$_i$  pažadėj-o motin-ai   [PRO$_i$ grįž-ti
   Marija-F.SG.NOM promise-PST.3 mother-F.SG.DAT PRO return-INF
    namo rytoj  vien-a   / *vien-ai].
    home tomorrow alone-F.SG.NOM / *alone-F.SG.DAT
    'Marija promised mother to return home tomorrow alone.'

  b. Jon-as   įtikin-o  Marij-ą$_i$  [PRO$_i$ grįž-ti  namo
   Jonas-M.SG.NOM convince-PST.3 Marija-F.SG.ACC PRO return-INF home
    rytoj  vien-ą   / vien-ai].
    tomorrow alone-F.SG.ACC / alone-F.SG.DAT
    'Jonas convinced Marija to return home tomorrow alone.'

In 86, we see that the genitive in the evidential behaves as a subject in obligatorily transmitting its case to the controlled PRO, thereby triggering genitive case agreement and prohibiting dative case agreement.

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[49] Landau 2008 analyzes a similar pattern in Russian.

(86) Marij-os*i*        pažadė-t-a                [PRO*i* grįž-ti     namo
     Marija-F.SG.GEN promise-PST.PASS.PTCP-N  PRO  return-INF home
          ?vien-os*i*        / *vien-ai*i*           rytoj].
          ?alone-F.SG.GEN / *alone-F.SG.DAT tomorrow
     'Marija must have promised to return home alone tomorrow.'

The passive of 'promise' is an impersonal passive, with no grammatical subject; it thus allows control by the implicit agent (see van Urk 2013, Pitteroff & Schäfer 2019 for related discussion).

(87) Vakar     buv-o     pažadė-t-a                [PRO grįž-ti      namo
     yesterday be-PST.3 promise-PST.PASS.PTCP-N  PRO return-INF home
          rytoj].
          tomorrow
     'Yesterday, it was promised to return home tomorrow.'

The genitive agent, however, cannot transmit its case to the embedded PRO.

(88) Vakar     buv-o     Marij-os*i*        pažadė-t-a                   [PRO*i*
     yesterday be-PST.3 Marija-F.SG.GEN promise-PST.PASS.PTCP-N   PRO
          grįž-ti     namo rytoj     ??vien-os*i*         / *vien-ai*i*].
          return-INF home tomorrow ??alone-F.SG.GEN / *alone-F.SG.DAT
          'Yesterday, it was promised by Marija*i* to return home tomorrow (*alone*i*).'

Interestingly, dative case agreement on the secondary predicate is also ungrammatical. We hypothesize that as control by an agent, this patterns as subject control, and so case transmission is obligatory. However, the agent is realized only as a PP adjunct, which cannot transmit its case, because it is a PP rather than a case-marked DP, and so has no accessible case to transmit.[50] Thus, there is no grammatical morphological form for the secondary predicate.

   Our sixth argument comes from predicates with nonnominative subjects. For example, *trūkti-* 'lack' exhibits a dative-genitive case pattern, where the dative patterns as the grammatical subject. (Other verbs in this class include *užtekti-* 'to have enough', *stigti-* 'to be short of', *pakakti-* 'to suffice'.) Example 89 illustrates that the dative subject of 'lack' can serve as a binder for the subject-oriented reflexive *savo*. (See Šereikaitė 2020a for further analysis.)

(89) Man*i*     trūk-o      pinig-ų              savo*i*    reikm-ėms.
     me.DAT lack-PST.3 money-M.PL.GEN self.GEN needs-DAT
          'I*i* lacked money for my*i* own needs.'

The evidential exhibits the expected invariant neuter participle, obligatory absence of a finite auxiliary, and evidential interpretation. The grammatical subject, however, remains dative rather than becoming genitive.

(90) Man     / *mano (*buv-o)   trūk-t-a              pinig-ų
     me.DAT / *me.GEN (*be-PST.3) lack-PST.PASS.PTCP-N money-M.PL.GEN
          vakar.
          yesterday.
     'I must have lacked money yesterday.'

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[50] Two of our eight consultants do allow case transmission from the 'by'-phrase. We hypothesize that these speakers allow case transmission to PRO from within a PP, but have been unable to construct sentences to test this. Overall, Lithuanian is more permissive for case transmission in control than Russian (Landau 2008), in allowing case transmission from nonaccusative objects.

(i) Mar-ius      papraš-ė Lin-os*i*       [PRO*i* atei-ti    vien-os        / vien-ai].
     Marius-NOM ask-PST.3 Lina-F.SG.GEN PRO come-INF alone-F.SG.GEN / alone-F.SG.DAT
          'Marius asked Lina to come alone.'                        (adapted from Vaikšnoraitė 2015:40)

Thus, grammatical subjects that normally bear nominative are genitive in the evidential, while those that normally bear a marked nonnominative case retain that case in the evidential. This pattern is akin to that found in case stacking and case replacement in other languages (Babby 1980, Moravcsik 1995, Richards 2012, inter alia), and hence expected on the current analysis whereby the genitive in the evidential is a grammatical subject receiving genitive case. It is not expected if the genitive in the evidential is a 'by'-phrase. Indeed, 'lack'-class predicates do not passivize.

(91) *Pinig-ai      buv-o   trūk-t-i                    mano.
      money-M.PL.NOM be-PST.3 lack-PST.PASS.PTCP-M.PL.NOM me.GEN
      'The money was lacked by me.'

Finally, the evidential may apply to unaccusatives (Timberlake 1982, Lavine 2006, 2010, Sprauninenė et al. 2015), while the passive may not. The lack of the past auxiliary disambiguates 92 as an evidential, and it receives an evidential interpretation. The past auxiliary disambiguates 93 as a passive, and it is ungrammatical.

(92) Jon-o          numir-t-a            praeit-ą      ruden-į.
      Jonas-M.SG.GEN die-PST.PASS.PTCP-N last-M.SG.ACC fall-M.SG.ACC
      'Jonas must have died last fall.'

(93) *Praeit-ą      ruden-į       buv-o   numir-t-a            Jon-o.
      last-M.SG.ACC fall-M.SG.ACC be-PST.3 die-PST.PASS.PTCP-N Jonas-M.SG.GEN
      'Last fall, it was died by Jonas.'

As we predict, the genitive theme of the evidential unaccusative patterns as a grammatical subject in binding the subject-oriented reflexive *savo* (94a), just like the nominative theme in the nonevidential unaccusative (94b).

(94) a. T-o          lapel-io$_i$     nutrūk-t-a                  nuo savo$_i$    /
         that-M.SG.GEN leaf-M.SG.GEN come.off-PST.PASS.PTCP-N from self.GEN /
             *jo$_i$     šakel-ės.
             *his.GEN branch-F.SG.GEN
         'The leaf$_i$ must have come off its$_i$ branch.'
     b. T-as          lapel-is$_i$     nutrūk-o        nuo  savo$_i$    / *jo$_i$
         that-M.SG.NOM leaf-M.SG.NOM come.off-PST.3 from self.GEN / *his.GEN
             šakel-ės.
             branch-F.SG.GEN
         'The leaf$_i$ came off its$_i$ branch.'

We conclude that Lithuanian exhibits an evidential in which the grammatical subject bears genitive rather than nominative case. This grammatical subject may be the agent of an active transitive or unergative, or the theme of an unaccusative. The passive, in contrast, demotes the agent of a transitive or unergative predicate, the agent optionally realized as genitive DP inside a PP adjunct.

With this background, we return to the purported passive of a passive, 68, repeated below with our glossing and translation.

(95) T-o          lapel-io     bū-t-a               vėj-o
      that-M.SG.GEN leaf-M.SG.GEN be-PST.PASS.PTCP-N wind-M.SG.GEN
          nupūs-t-o.
          blow-PST.PASS.PTCP-M.SG.GEN
      'That leaf must have been blown down by the wind.'

We now recognize this as an evidential of a passive. As a passive, it has an auxiliary and agreement between the lexical participle and its grammatical subject, 'that leaf'. The thematic subject, 'the wind', is realized as a genitive PP adjunct. As an evidential, it has a genitive grammatical subject, and neuter participle morphology on the auxiliary.

Thus, the genitive thematic subject is a 'by'-phrase, whereas the genitive theme is the grammatical subject of an evidential. As predicted, the genitive theme can serve as the binder for the subject-oriented reflexive *savo*.

(96) T-o          lapel-io        bū-t-a               vėj-o
     that-M.SG.GEN leaf-M.SG.GEN be-PST.PASS.PTCP-N wind-M.SG.GEN
          nupūs-t-o                           nuo  savo$_i$   / *jo$_i$
          blow-PST.PASS.PTCP-M.SG.GEN from self.GEN / *his.GEN
          šakel-ės.
          branch-F.SG.GEN
     'That leaf$_i$ must have been blown off its$_i$ branch by the wind.'

   In sum, the purported passive of a passive in Lithuanian is not a passive of a passive, but an evidential of a passive. Is a passive of a passive possible in Lithuanian? It would have a finite auxiliary 'be', an auxiliary participle 'be', and a lexical participle; both participles would be in the nonagreeing neuter, due to the lack of a grammatical subject to trigger agreement. Two genitive 'by'-phrases would be possible. Example 97 illustrates and is ungrammatical. Passives of passives are not possible in Lithuanian.

(97) *buv-o    bū-t-a               nupūs-t-a               vėj-o
     be-PST.3 be-PST.PASS.PTCP-N blow-PST.PASS.PTCP-N wind-M.SG.GEN
          t-o            lapel-io.
          that-M.SG.GEN leaf-M.SG.GEN
     ('Was been blown down by the wind by that leaf.')

   In summary, carefully distinguishing between passives and evidentials, we have demonstrated that the purported passive of a passive in Lithuanian is in fact an evidential of a passive. The passive in Lithuanian cannot apply to passives, and indeed is limited to applying to verbs with a thematic subject; evidentials do not show this limitation.

   Before continuing, we consider further the syntax of evidentials in Lithuanian. As we have seen, the evidential marks its grammatical subject with genitive, regardless of whether it is an agent, of an unergative or transitive, or is a theme, of a passive or unaccusative. This indicates that the genitive is not an inherent case, associated with a particular θ-position, but rather a structural case assigned by a functional projection to the highest argument in the verb phrase.[51] This is supported by the pattern in 89 and 90 above, whereby a DP with inherent case retains its case in the evidential, rather than bearing genitive, just as a DP with inherent case retains its case in finite subject position, rather than bearing structural nominative. Finally, the genitive also patterns as a structural case for agreement. As seen in 95, the genitive grammatical subject triggers agreement on the passive participle, identically to the nominative grammatical subject in 70a. Inherent case-marked grammatical subjects, in contrast, do not trigger agreement on participles. As discussed above (see also Šereikaitė 2020a), 'lack'-class verbs in Lithuanian exhibit grammatical subjects marked with inherent dative case. While 'lack'-class verbs do not passivize, we can test their behavior for agreement with verbal participles using the agreeing active participle found in the perfective evidential construction, which expresses reported speech or hearsay (Ambrazas et al. 1997:262–66, Lavine 2010:121). Example 98 shows that the participle agrees with its nominative grammatical subject; 99 shows that it does not agree with a dative grammatical subject (Ambrazas et al. 1997:35).
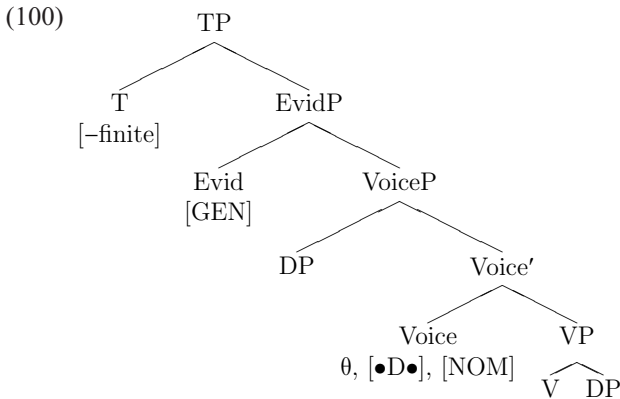
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[51] This allows us a unified analysis of the genitive; see Lavine 2010 for an alternative whereby v-Voice assigns genitive to its specifier in transitives, like an inherent case, but under closest c-command in passives/unaccusatives, like a structural case.

(98) Girdėj-au, Marij-a (yra) gyven-us-i šiame
hear-PST.1SG Marija-NOM be.PRS.3 live-PST.ACT.PTCP-F.SG.NOM this
bendrabutyje.
dorm
'I heard that Maria lived in this dorm.'

(99) Girdėj-au, Marij-ai buv-o trūk-ę tėv-ų
hear-PST.1SG Marija-DAT be-PST.3 lack-PST.ACT.PTCP.N parent-PL.GEN
šilum-os.
warmth-GEN.F.SG
'I heard that Maria lacked parents' warmth.'

Thus, the evidential genitive behaves like a structural case in triggering agreement on verbal participles, in contrast with inherent case-marked DPs, which do not. This accounts for the case properties of evidentials of passives, unergatives, and unaccusatives.

Transitive evidentials raise a further analytical issue, in that their grammatical object bears nominative. If the evidential projection is located high in the clause (Cinque 1999, Speas 2004, inter alia; Lavine 2006, 2010 for Lithuanian), it is difficult to prevent accusative case from being assigned to the object inside the verb phrase.[52] However, recent work on the typology of evidentials (Blain & Déchaine 2006 and subsequent) argues that evidential meaning may be associated with projections appearing in any position in the syntactic spine. Since the Lithuanian construction is characterized by a nonfinite TP combined with a VoiceP that fails to assign accusative case, we propose that the evidential projection appears between TP and VoiceP, and is thus in a selectional relationship with both.[53] This positioning also allows it to assign structural genitive case to the highest DP in the clause. We analyze nominative as assigned to the object by the Voice[0] that is selected by Evid[0].[54] The following tree illustrates the analysis for transitive evidentials (abstracting away from argument movement).

(100)

```
                TP
             /      \
            T        EvidP
        [−finite]   /     \
               Evid        VoiceP
              [GEN]       /      \
                         DP      Voice′
                                /      \
                            Voice       VP
                       θ, [●D●], [NOM]  /  \
                                       V    DP
```

Returning to the main thread, in the following section we examine the final oft-cited apparent passive of a passive, in Sanskrit.

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[52] Lavine 2010 posits a VoiceP lacking accusative case, but does not discuss how the Evidential projection in the CP domain enforces use of this VoiceP.

[53] Blain and Déchaine (2006) indeed argue that the type of evidentiality exhibited in Lithuanian, which contrasts visual with nonvisual evidence, is anchored low in the clausal hierarchy.

[54] In contrast, Lavine 2010 analyzes the nominative on Lithuanian evidential objects as a default; this is also compatible with our approach.

**4. Sanskrit.** The final purported passive of a passive comes from Classical Sanskrit (Cardona 1976, Ostler 1979, Kiparsky 2013, inter alia) and is illustrated in 101.[55]

(101)  Odan-ena pac-ya-te.
       rice-INS   cook-PASS-3SG
         'The rice is cooking.'                                          (Cardona 1976:5)

Our discussion is necessarily more tentative, given the lack of native speakers of Classical Sanskrit. The available evidence indicates, however, that 101 does not involve passivization at all. Instead, it is an unaccusative, and the morpheme glossed as passive is more general nonactive morphology. We develop a theoretical description of the construction, but must leave its explanation for future work.

Of interest in 101 is that the theme 'rice' appears in the instrumental. As illustrated in 102b, this is characteristic of the demoted agent in the passive.

(102)  a.  Devadatta      odanaṁ pac-a-ti.
         Devadatta.NOM rice.ACC cook-ACT-3SG
           'Devadatta is cooking the rice.'
     b.  Odanaḥ  pac-ya-te     Devadatt-ena.
         rice.NOM cook-PASS-3SG Devadatta-INS
           'The rice is being cooked by Devadatta.'                      (Cardona 1976:2)

On a passive-of-a-passive analysis, 101 has two applications of the passive: the first demotes the agent, which is then left implicit in 101, and the second demotes the theme, which then appears in an instrumental 'by'-phrase in 101. The fact that the verb exhibits only one passive morpheme rather than two is attributed to a 'morphological bottleneck' (Kiparsky 2013:24).

The first step in understanding the construction in 101 is to note that the passive suffix in Classical Sanskrit is not dedicated passive morphology, but also marks a subset of unaccusative verbs (a rather unremarkable state of affairs; see e.g. Haspelmath 1990:36). Henceforth we therefore gloss this morphology as 'nonactive'. The following illustrate unaccusative verbs that have no transitive or simple passive use, but appear suffixed with the nonactive morphology.

(103)  a.  pad-ya-te             b.  ās-ya-te
        fall-NACT-3SG             be.seated-NACT-3SG
         'falls'                  'is seated'

Many other verbs are ambiguous in their suffixed form between a simple passive and an unaccusative.

(104)  a.  muc-ya-te            b.  pac-ya-te
        escape-NACT-3SG         cook-NACT-3SG
         'gets free, escapes' *or* 'is freed'    'ripens, softens, cooks' *or* 'is
                                           cooked'

Interestingly, Vedic Sanskrit distinguishes between the unaccusative suffix and the passive suffix through accent.[56] Accented *-yá* forms passive presents from verb roots;

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[55] As is standard in the Sanskrit literature, the judgment of ungrammaticality in this section is used to indicate forms that are neither attested nor generated by the rules in Pāṇini's *Ashtadhyayi* or in the other grammatical literature of the time period; grammaticality is used for the inverse.

[56] Vedic Sanskrit has additional suffixes of the shape *-ya* that form present stems. Unaccented *-ya* forms underived presents (e.g. *páś-ya-ti* '(s)he sees'); accented *-yá* derives present stems from nominals (e.g. *deva-yá-ti* '(s)he serves the gods' from *devá-s* 'god', *manas-yá-ti* '(s)he bears in mind' from *mánas* 'mind').

the root appears in the zero grade, and the stem is inflected for agreement in the medio-passive rather than the active (e.g. *uc-yá-te* 'it is spoken' from *vac-* 'speak'). Unaccented *-ya*, in contrast, is used for a small class of intransitive (unaccusative) presents, also inflected in the mediopassive; 105 illustrates the contrast between passive *-yá* and unaccusative *-ya*.

(105)  a.  paktíḥ          pac-yá-te
           cooked.food cook/ripen-PASS-3SG
              'cooked food is cooked'                                                      (RV 6.29.4)
       b.  pác-ya-te                yávaḥ
           cook/ripen-UNACC-3SG grain.NOM
              'grain ripens'                                                               (RV 1.135.8)

(Both stems contrast with the basic present *pác-a-* (active *pácati* '(s)he cooks', middle *pácate* '(s)he cooks for him/herself'), well attested at every stage of the language.) An equally clear set follows.[57]

(106)  a.  kṣī-yá-te
           destroy/perish-PASS-3SG
              'it is destroyed'
       b.  rā́yo          ná  kṣī́-ya-nte,                 ná_úpa
           wealth.NOM.PL not destroy/perish-UNACC-3PL not_to.completion
              das-ya-nti
              be.extinguished-PRS-3PL
              'the riches do not perish, they do not give out'                            (RV 1.62.12)

(Both stems contrast with the basic present, which is nasal-infixed *kṣi-ṇā́-ti* '(s)he destroys'.) In addition to several further contrastive examples, there are a number of unaccusative verbs whose only present is with unaccented *-ya* inflected in the mediopassive; a typical example is *pád-ya-te* 'it falls'.

  With the loss of the inherited accent at the end of the Vedic period, the passive *-yá* and unaccusative *-ya* become morphologically indistinguishable as nonactive *-ya*. We therefore need tests to determine whether the nonactive morpheme in 101 marks a passive structure or an unaccusative structure or is ambiguous between the two. A positive test for the unaccusative structure is the adjunct 'by itself', which indicates the lack of an external cause.[58]

(107)  (svayameva) kusūlo               'bhid-ya-ta.
          of.itself      grain.holder.NOM.SG PST.break-NACT-3SG
             'The grain holder broke (of its own accord).'

The construction in 101 can occur with 'by itself', demonstrating that it can have an unaccusative structure.

(108)  (svayameva) kusūl-ena_a-bhid-ya-ta.
          of.itself      grain.holder-INS.SG_PST-break-NACT-3SG
             'The grain holder broke (of its own accord).'

Furthermore, we noted above that some verbs that appear with nonactive morphology have only an unaccusative use, not a passive. Such verbs can also appear in the construction at hand, with an instrumental theme, again indicating an unaccusative structure.

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[57] The first is unattested in RV, but is common in later Vedic and later Sanskrit.

[58] This test was brought to the attention of linguists by Gennaro Chierchia in a 1989 manuscript; see Chierchia 2004 for the published version. For the Sanskrit, see Cardona 1976, Ostler 1979, Kiparsky 2013, inter alia.

(109) a.  sam-a-bhāv-i                              kop-ena.
            together-PST-be-AOR.NACT.3SG anger-INS
               'Anger burst forth.'                                          (Bhaṭṭi-Kāvya)
      b.  Devadatt-ena_ās-ya-te.
            Devadatta-INS_be.seated-NACT.3SG
               'Devadatta was seated.'

A positive test for the passive structure is the cooccurrence with an agentive 'by'-phrase adjunct in the instrumental case—see the passive example in 102b. The construction in 101 cannot occur with a 'by'-phrase, indicating that a passive structure is not possible.

(110) *Devadatt-ena  kusūl-ena_a-bhid-ya-ta.
          Devadatta-INS grain.holder-INS_PST-break-NACT.3SG
             'The grain holder broke by Devadatta.'

In summary, the purported passive of a passive in Sanskrit is instead an unaccusative. The verb is marked with nonactive morphology that is syncretic between the passive and unaccusative, which seems to have contributed to the misanalysis. Crosslinguistically, we are left with no known passives of passives.

   Before proceeding, we consider further the instrumental case on the theme of 101: is this unexpected case on a DP argument, or is the theme in a 'by'-phrase adjunct? If the instrumental theme is a DP argument, then we have another argument against the passive-of-a-passive analysis of 101, since that analysis claims that the instrumental is a 'by'-phrase. If the instrumental is a 'by'-phrase adjunct, the construction in 101 would be a passive of an unaccusative (Kiparsky 2013). One piece of evidence for the theme being a DP argument, rather than a 'by'-phrase adjunct, comes from case agreement. If the instrumental is an adjunct, we do not expect it to trigger case agreement on the predicate; if it is an argument, we do expect it to trigger case agreement. The latter prediction is borne out: the instrumental theme triggers instrumental agreement on predicates that undergo case agreement (these predicates being embedded under an auxiliary, in our data either 'be' or 'stand'). Whitney in his Sanskrit grammar states: 'A predicate to the instrumental subject of such a construction is, of course, also in the instrumental' (Whitney 1950:§282.a), providing the following examples. In 111a, 'thy companion' is the predicate, agreeing in case with the instrumental 'me', whereas in 111b 'attend' is the predicate, agreeing with (dropped) 'you'.

(111) a.  adhunā tava        anucar-eṇa      mayā  sarvathā
            now     you.GEN companion-INS me.INS always
               bhavi-tavyam
               be-PTCP.FUT.NACT.3SG
               'henceforth I shall always be thy companion'               (Hitopadeśa)
      b.  avahi-t-āir          bhavi-tavyam          bhav-ad-bhiḥ
            attend-PTCP-PL.INS be-PTCP.FUT.NACT.3SG be-PTCP-PL.INS
               'you must be attentive'                                     (Vikramorvásī)

Additional attested examples follow. In 112a, 'lying' agrees with 'me'; in 112b, 'his voice suitable' agrees with 'prowess'; in 112c, 'ascetics grove' agrees with 'this'.

(112) a.  mayā  na  śayān-ena      sthī-ya-te.
            me.INS not lying.PTCP-INS stand-NACT.3SG
               'I do not remain lying down.'                              (Mudrārākṣasa 1)
      b.  tasya     ca  śabdānurūp-eṇa    parākram-eṇa bhāv-yam.
            him.GEN and voice.suitable-INS prowess-INS   be-NACT.GER.N.SG
               'And his strength may be adequate to his voice.'            (Pañcatantra)

    c. abhitas      tapovane-na      an-ena bhavi-tavy-am
       round.about ascetics.grove-INS this-INS be-GER-NOM.SG.N
        'This must be an ascetics grove round about.' (Bhāsa, Svapnavāsavadatta)

In contrast, the instrumental 'by'-phrase agent in the passive behaves like a PP adjunct in that it does not trigger case agreement; the predicate agrees with the nominative theme instead. Compare 112a, in which 'lying' agrees with the instrumental theme, with 113, in which 'beat' agrees with the (dropped) nominative, not the instrumental agent.

(113) Devadatt-ena  tāḍitas          tiṣṭh-āmi
      Devadatta-INS beat.PST.PTCPL.NOM stand.PRS-1SG
       'I lie beaten by Devadatta'

We conclude, therefore, that the instrumental theme in the construction under discussion is an argument of the predicate rather than an adjunct. Thus, the purported passive of a passive in Classical Sanskrit involves no passivization at all. Instead a subset of unaccusatives are marked with nonactive morphology syncretic with the passive; the theme of these unaccusatives may (optionally) bear instrumental. In contrast, the theme of unaccusatives with active morphology cannot bear instrumental.[59]

(114) *mayā  tava     anucar-eṇa     bhavati
      me.INS you.GEN companion-INS be.PRS.3SG
       'I am your companion'

This suggests that it is not the lexical verb itself that assigns instrumental to the theme, but rather the functional head realized by *-ya*. In the framework represented by Harley 1995, Marantz 1997, Embick 1998, and much subsequent work, this functional head is appropriately labeled as v. Thus, we have the following structure for the relevant unaccusatives; assignment of instrumental by the v is optional, hence in parentheses.

(115)

```
              vP
             /  \
            v    VP
          -ya   /  \
        ([INSTR]) V  DP
```

This case assignment is an interesting phenomenon in and of itself; an explanation for its historical development must await future research. For current purposes, the key observation is that these constructions in Sanskrit are not passives of passives, but rather unaccusatives. Moreover, they are not passives of unaccusatives, but rather unaccusatives in which the theme is assigned instrumental case, and the verb bears nonactive morphology that is used for (a subset of) unaccusatives and for passives. Passivization is not involved at all. Perlmutter and Postal's generalization that passives of passives are unattested continues to hold.

**5.** ANALYSIS. In the previous sections, we discovered that the constructions that have been cited as evidence for the passive applying to passives had been misanalyzed. Careful reanalysis demonstrated that in all three cases, the languages in fact confirm Perlmutter and Postal's generalization that passives may not themselves undergo passivization. This necessitates an analysis of the passive that can capture this generalization. Specifically, the analysis of the passive must predict that the passive cannot iterate: demotion of the agent through passivization cannot make the theme accessible for demotion on a second round of passivization.

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[59] We thank a referee for this example.

Perlmutter and Postal's own (1984) account depends on two proposed conditions, both of which are simply stipulated. The analysis is couched in RELATIONAL GRAMMAR, in which a passive involves demotion of an initial subject (referred to as a 1) to a prepositional adjunct (*chômeur*) and promotion of another clausal element to subject. The first condition required to rule out passives of passives is the 1-ADVANCEMENT EXCLUSIVENESS LAW.[60]

> (116)  1-ADVANCEMENT EXCLUSIVENESS LAW: The set of advancements to 1 in a single clause contains at most one member. (Perlmutter & Postal 1984:84)

This law prohibits multiple promotions to subject within a clause. The second condition is the MOTIVATED CHÔMAGE LAW, which prevents demotion of the subject to adjunct status from applying in the absence of promotion of an element to subject status. This condition should prevent impersonal passives entirely, but instead Perlmutter and Postal posit that impersonal passives involve promotion of a null dummy to subject position, motivating demotion of the subject to adjunct. Thus, in this framework, a passive of a passive would involve promotion of the theme to subject status and corresponding demotion of the agent to adjunct status, followed by a second step with promotion of a dummy to subject status and corresponding demotion of the theme to adjunct status. It is this second step that is ruled out by the combination of the motivated chômage law, which prevents the theme from being demoted without promotion of something to subject status, and the 1-advancement exclusiveness law, which prevents the dummy from promoting to subject status to allow demotion of the theme. This theory has been criticized for its reliance on the dummy, which is required on theory-internal grounds, but is not empirically motivated (Comrie 1977, Blevins 2003, inter alia). The fact that the two conditions that achieve the absence of passives of passives do not follow from independent properties of the theory make it inadequate for our needs. Furthermore, see Legate 2012, 2014 for arguments against an analysis of the passive involving actual demotion of an argument from the subject position to adjunct status.

Kiparsky 2013 considers passivization of passives to be possible, and formulates a theory of passivization accordingly. The approach is couched within LEXICAL DECOMPOSITION GRAMMAR (Wunderlich 1997, Stiebels 2002), incorporating OPTIMALITY-THEORETIC constraints. Passive is defined as 'an affix that demotes (existentially closes) the most prominent Theta-role that is not already demoted' (Kiparsky 2013:7). The system thus does not capture the fact that passives of passives are unattested. While the passive could be redefined so as to apply to only the thematic subject θ-role, the lack of constraints on the possible definition of the passive eliminates any predictive power of the theory in this regard. Several other theories of the passive also suffer from this issue: the passive is simply defined as a lexical rule, and its formulation either predicts iteration, or could be easily modified to predict iteration. For example, the standard treatment of the passive in LEXICAL FUNCTIONAL GRAMMAR (LFG; Bresnan 2001) defines passive as a lexical rule that suppresses the most prominent role; the most prominent unlinked role after passivization is the theme, so iteration can be predicted.[61] Similarly, Blevins 2003

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[60] We cite here the less technical of their two formulations.

[61] An alternative LFG analysis is Kibort 2001. Arguments are assigned features based on their thematic roles; the passive adds [+r] to the highest argument of the predicate. If this argument is a thematic subject, [−o], the result is an oblique, [+r, −o]. If this argument is a thematic object, the result is the impossible [−r, +r]. Hence, passivization can only apply to demote thematic subjects, and passives of passives are not possible. This is accomplished by ruling out demotion of themes, which should thereby also rule out antipassives (see Polinsky 2017 for a recent overview) and any passives of unaccusatives; see §6. Accommodating these is likely to reintroduce possible passives of passives.

employs technology from HEAD-DRIVEN PHRASE STRUCTURE GRAMMAR to directly identify the subject term linked to the first θ-role of a predicate, and to then define the PASSIVE LEXICAL RULE to specifically eliminate this subject term (Blevins 2003:512); changing the rule to apply to any subject term would predict passive iteration. Culicover & Jackendoff 2005:203 in the framework of SIMPLER SYNTAX defines the passive as linking the highest-ranking grammatical function with an oblique; passive iteration is expected. Examples multiply.

Turning to syntactic analyses of the passive, we begin with Murphy 2014, which discusses the Turkish and Lithuanian constructions. Building on Müller 2014, Murphy 2014 proposes that passivization is a syntactic operation, Slice, which functions as the opposite of the structure-building operation Merge (Chomsky 1995a), in that a constituent at the top of the tree is removed.[62] As a syntactic operation, Slice can iterate, first removing the agent, then removing the theme (after it has raised to VoiceP); this is the analysis provided for the Turkish construction, assumed to be a passive of a passive.[63] The analysis of passives through Slice therefore does not account for the lack of passives of passives crosslinguistically and so is not adequate to our needs. The theory also fails to predict other properties of the passive constructions considered here. The Slice operation is designed to capture the purported generalization that the passive agent behaves as present in the structure for relationships below its merged thematic position (binding, depictive licensing, control), but not above that position. As we have seen above, the passive agent in neither Turkish nor Lithuanian follows this pattern: the passive agent cannot bind into lower arguments/adjuncts, and cannot license depictives.[64] Furthermore, control by the passive agent crosslinguistically is quite restricted, being limited to impersonal passives (or passives with inanimate subjects) (see van Urk 2013, Pitteroff & Schäfer 2019 for recent discussion); indeed Lithuanian exhibits this pattern, as in 87 above. Therefore the claimed crosslinguistic generalization does not hold: the passive agent does not pattern for relationships below its thematic position as syntactically projected in the same way as the active agent. We need a difference between the active and passive even at the thematic position, so that low properties can potentially show sensitivity to this difference.

Another class of syntactic analyses of the passive are based on the claim that the passive agent is not demoted in any sense, but rather syntactically projected as a (potentially null) argument. Collins 2005 is an influential proponent, although Baker et al. 1989 (building on Jaeggli 1986) is a precursor, with the passive morpheme treated as an argument itself, receiving case and the subject θ-role. These analyses cannot account for our data, as much of our argumentation above centers on the demonstration that the passive agent in Turkish and Lithuanian behaves as syntactically unprojected, in contrast with the Turkish impersonal agent and the Lithuanian evidential agent, which be-

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[62] In the section of the article discussing syntax, this is illustrated as removing the element entirely, to allow A-movement past it. In the section discussing the semantic interpretation, this is illustrated as leaving an unbound variable, which may then be subject to EXISTENTIAL CLOSURE (Heim 1982). It is unclear how to reconcile these.

[63] The Lithuanian construction is analyzed as iterative assignment of genitive case by VoiceP, although 'by'-phrases in this theory are analyzed as re-merger of the agent as an adjunct (after merger as a thematic subject and removal through Slice). The analysis thus does not capture the properties of the Lithuanian genitive 'by'-phrase in the passive, nor the differences between the genitive that is the passive 'by'-phrase and the genitive that is the evidential grammatical subject.

[64] The passive agent in Lithuanian indeed cannot license depictives (Šereikaitė 2020b), but this is less striking because depictives obligatorily agree in both φ-features and case, which could also explain their ungrammaticality; see Pitteroff & Schäfer 2019. Turkish depictives do not agree.

have as syntactically projected. These also do not fare well regarding passives of passives. Baker et al. (1989) discuss Turkish and Lithuanian, claiming that the passive morpheme in these languages can be generated in argument position, either subject or object or both, and then cliticized to INFL, allowing it to appear as a morpheme on the verb. (Although this does not derive the correct morpheme ordering for Turkish, passive between causative and aspect; see 59 above.) They prevent the passive morpheme from being generated only in the object position (yielding the equivalent of an antipassive; see below) through locality. Specifically with the stipulation that the passive morpheme must move to INFL, this movement can satisfy locality only from the subject position, not from the object position; movement of the object requires prior cliticization of the subject, thereby freeing up the subject position for the object to move through.[65] The ability of the analysis in Baker et al. 1989 to generate passives of passives renders it inadequate for our needs. Collins 2005 differs from Baker et al. 1989 in not positing cliticization, and not discussing the Turkish and Lithuanian data. It is unclear how passives and impersonals are to be differentiated in this theory, so we do not speculate on how it could capture the nonexistence of passives of passives, but the existence of impersonals of passives. For additional arguments against the approach of Collins 2005, see Bowers 2010:Ch. 2 and Legate 2014:64–82, among others.

Finally, we turn to syntactic analyses of the passive in which the passive agent is syntactically unprojected, as required for our data. Our own analysis is couched in this tradition (following Bruening 2013, Legate 2014, Alexiadou et al. 2015, inter alia) and adopts the general semantic framework of Heim & Kratzer 1998. A primary benefit of this style of analysis is the intrinsic ordering imposed by the syntactic hierarchy and the compositional semantic interpretation. Specifically, the composition of the verb with its theme occurs low in the tree, before introduction of the agent. Therefore, passivization of the agent cannot make the theme available for passivization, thereby ruling out a passive of a passive. Consider the following basic tree.[66]

(117)    VoiceP
         /      \
      Voice      VP
       θ        /   \
              V    (DP)
              θ
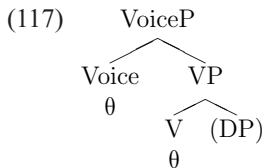
If the theme (in parentheses) is present in the structure, then it will be assigned its θ-role by the verb as usual, regardless of whether VoiceP is active or passive, and no passive of a passive can arise. If the theme is absent from the structure, a passive of a passive still cannot arise. The thematic object position will be unsaturated, creating difficulty in the semantic composition between the VP and the Voice$^0$. Assume for simplicity the approach of Bruening 2013, whereby the existential quantification (Bach 1980, Keenan 1980, Williams 1987, Bruening 2013, Legate 2014, Alexiadou et al. 2015, among many others) of the passive agent enters the derivation on a Pass$^0$ above VoiceP.[67] Also assume that Voice$^0$ is of type $\langle\langle st\rangle, \langle e, \langle s, t\rangle\rangle\rangle$ and so in the active takes VP, of type $\langle st\rangle$, as
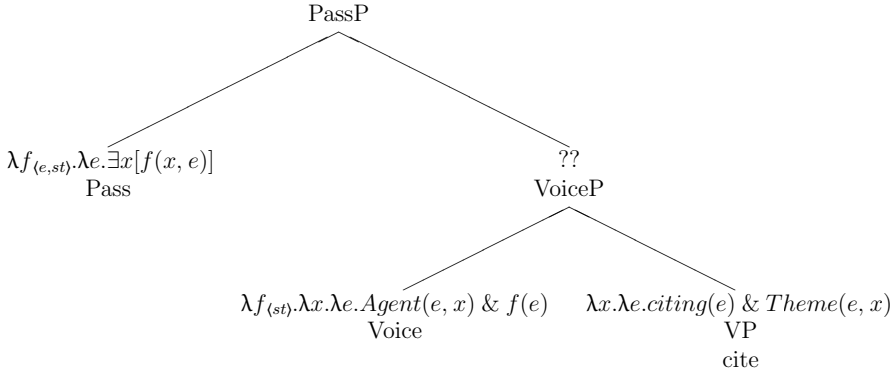
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[65] They implement this technically through the version of GOVERNMENT in Baker 1988.

[66] In this tree, we represent the object θ-role as assigned by the lexical verb, as is standard. If, however, as suggested by a referee, the object θ-role is instead assigned by a functional head dominating the VP, our argumentation proceeds unaffected.

[67] On our approach developed below the existential quantification is located on the passive Voice$^0$ itself, but the argument remains valid.

its semantic argument.[68] For the construction under consideration, a passive in which the thematic object position is left open, the result would be the following.
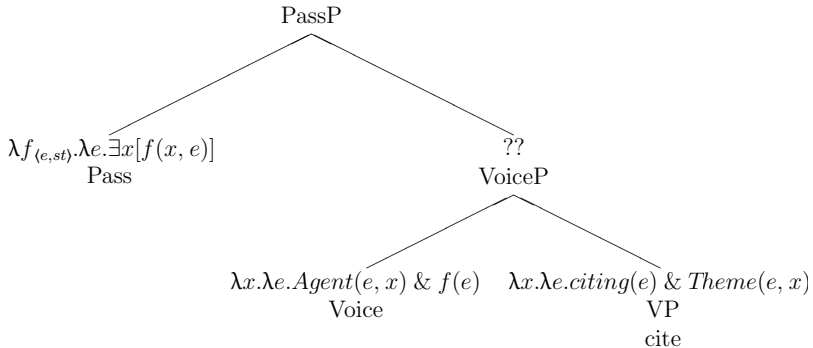
(118)  Mary was cited.

PassP

$\lambda f_{\langle e,st\rangle}.\lambda e.\exists x[f(x, e)]$
Pass

??
VoiceP

$\lambda f_{\langle st\rangle}.\lambda x.\lambda e.Agent(e, x) \& f(e)$
Voice

$\lambda x.\lambda e.citing(e) \& Theme(e, x)$
VP
cite

Voice$^0$, of type $\langle\langle st\rangle, \langle e, \langle s, t\rangle\rangle\rangle$, and the VP, of type $\langle e, \langle s, t\rangle\rangle$, cannot combine. Kratzer's (1996) alternative approach to the general combination of Voice$^0$ and VP also cannot yield a passive of a passive in this structure. On this proposal the Voice head is of type $\langle e, \langle s, t\rangle\rangle$ and combines with the verb phrase, normally of type $\langle s, t\rangle$, through EVENT IDENTIFICATION.

(119)  EVENT IDENTIFICATION: If a is of type $\langle e, \langle s, t\rangle\rangle$ and b is of type $\langle s, t\rangle$, $[\![a\ b]\!]$
     $= \lambda x.\lambda e.[\![a]\!](e, x) \& [\![b]\!](e)$.

Leaving the object unsaturated within the VP on this approach would yield the following.

(120)  Mary was cited.

PassP

$\lambda f_{\langle e,st\rangle}.\lambda e.\exists x[f(x, e)]$
Pass

??
VoiceP

$\lambda x.\lambda e.Agent(e, x) \& f(e)$
Voice

$\lambda x.\lambda e.citing(e) \& Theme(e, x)$
VP
cite

Voice$^0$ and VP could combine through FUNCTION COMPOSITION (Heim & Kratzer 1998). Crucially, this would yield a reflexive interpretation,[69] but not a passive of a passive.
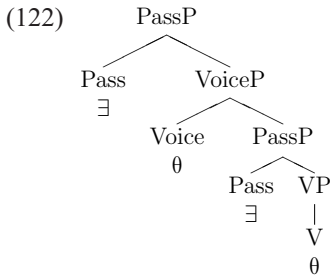
(121)  $\lambda x.\lambda e.Initiator(e, x) \& citing(e) \& Theme(e, x)$

Therefore, leaving the object position open within the VP cannot derive a passive of a passive. Positing existential quantification for the theme below VoiceP, in contrast,

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[68] In the semantic denotations, the type of individuals is *e*, the type of events is *s*, and the type of truth values is *t*.

[69] See Alexiadou et al. 2014 for this analysis of reflexives; thank you to a referee for bringing this work to our attention.

would yield the correct interpretation. This tree again assumes PassP as the source of existential quantification for simplicity, and the semantics are omitted as trivial.[70]

(122)

```
                    PassP
                   /     \
                Pass      VoiceP
                 ∃       /      \
                      Voice      PassP
                       θ        /     \
                             Pass       VP
                              ∃         |
                                        V
                                        θ
```

However, this tree structure is not a passive of a passive. Again, the core property of a passive of a passive is that the first instance of the passive demotes the agent, whereby the theme becomes the most prominent argument and thus available for demotion on the second instance of the passive (see, for example, the discussion of Kiparsky 2013 and Murphy 2014 above). In contrast, in 122 the theme is demoted by the lower $Pass^0$, entirely independently of the demotion of the agent by the higher $Pass^0$. It is thus accurately described as a passive of an antipassive. The distinction is important. If a passive of a passive were possible, it would be expected in a language that independently exhibits only a passive. A passive of an antipassive, in contrast, could occur only in a language that exhibits demotion of the theme independently, in addition to the passive. We leave aside as orthogonal the potential existence of passives of antipassives.
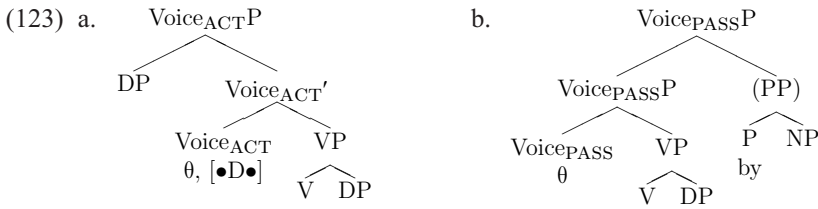
In sum, a syntactic analysis of the passive whereby the passive is built using different lexical items from the active successfully and naturally captures the absence of passives of passives crosslinguistically, whereas an analysis whereby the passive is an operation that changes an active into a passive does not. To our knowledge, this is a novel argument against a rule-based analysis of the passive, be it a lexical or syntactic rule.

We develop such a syntactic analysis of the passive in more detail, continuing to assume that the θ-role for the thematic subject is present in the passive, on $Voice^0$, but that this θ-role is not assigned to a DP. In the absence of a 'by'-phrase, the thematic subject position is existentially quantified. As mentioned, Bruening 2013 places this existential quantification on a functional projection dominating VoiceP (see also Alexiadou et al. 2015 for English, and Schäfer 2017). We do not adopt this approach because of difficulties that arise for passives with 'by'-phrases. When the passive occurs with a 'by'-phrase, the 'by'-phrase closes the agent position, rendering the $Pass^0$ semantically vacuous. To make this $Pass^0$ nevertheless compatible with standard MINIMALIST theory, which claims that all elements that survive to the interfaces must receive an interpretation (FULL INTERPRETATION; Chomsky 1986), Bruening 2013 treats this $Pass^0$ as an identity function. This is technically adequate, if unsatisfying. PassP must then be forced to appear even when semantically vacuous, to ensure uniform passive morphology; Bruening 2013 develops a system of featurally based syntactic selection for this purpose. $Voice^0$ syntactically selects for a nominal specifier, but does not combine with

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[70] This structure seems a natural extension of Bruening 2013 and achieves the correct interpretation; however, while Bruening 2013:37–38 mentions passives of passives as support for the analysis of the passive, that work does not provide a syntactic structure, and this structure is not compatible with the claim there that 'Voice universally selects for V' (Bruening 2013:37). (This claim seems untenable given proposals in which Voice combines with other projections, including at least (causative) vP and ApplP.)
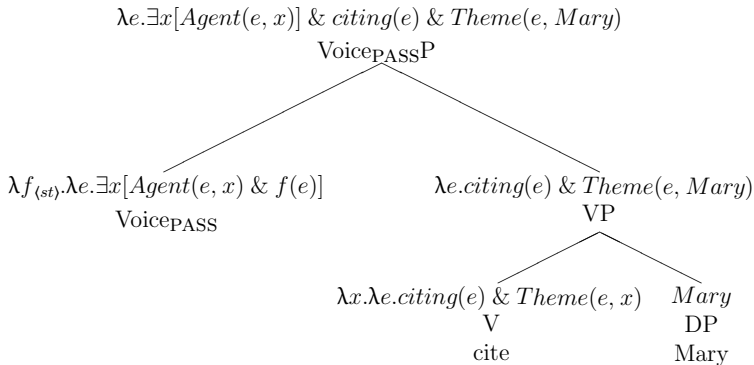
a nominal specifier in the passive. This should result in ungrammaticality; however, it is proposed that Pass$^0$ can itself select for a VoiceP with an unsatisfied selectional feature, and that this avoids the ungrammaticality. This proposal strikes us as having stretched the notion of selection to its breaking point.

Instead, we analyze the passive as a subtype of the Voice head itself, and place the existential quantification there. (For closely related approaches see Chomsky 2000, Legate 2014, Alexiadou et al. 2015 for Greek, and Schäfer 2017.[71]) Syntactically, the Voice$_{PASS}$ head introduces the external θ-role, but does not syntactically project this argument into its specifier. It is therefore compatible with a 'by'-phrase adjunct, which optionally adjoins to VoiceP to specify the agent. We indicate the difference in specifier selection between active and passive voice featurally, again using [•D•] to indicate selection of a DP specifier.

(123) a.

Voice$_{ACT}$P
- DP
- Voice$_{ACT}$′
  - Voice$_{ACT}$ θ, [•D•]
  - VP
    - V DP

b.

Voice$_{PASS}$P
- Voice$_{PASS}$P
  - Voice$_{PASS}$ θ
  - VP
    - V DP
- (PP)
  - P by
  - NP

Semantically, the passive needs to allow the external θ-role to be satisfied by the 'by'-phrase, when present, and to otherwise be interpreted existentially. We therefore propose that Voice$_{PASS}$ has two associated semantic denotations. The first, which does not combine with a 'by'-phrase, is illustrated in the derivation below. Irrelevant details are omitted. Notice that the agent is existentially bound on the Voice$_{PASS}$ head itself.[72]

(124) Mary was cited.

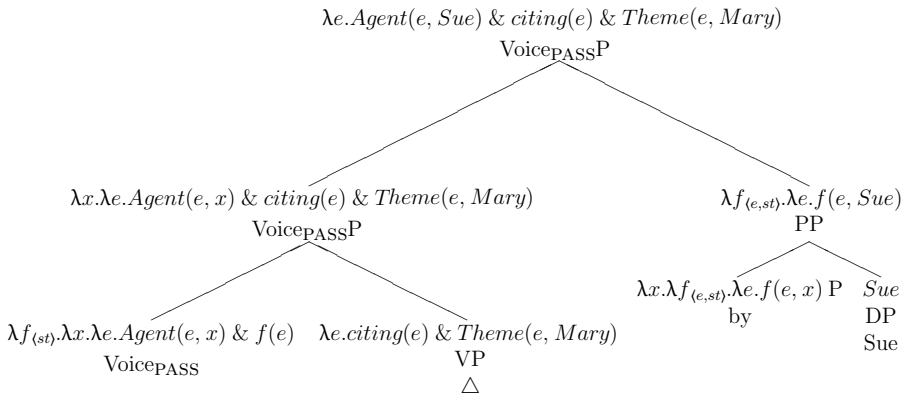$\lambda e.\exists x[Agent(e, x)] \& citing(e) \& Theme(e, Mary)$
Voice$_{PASS}$P
- $\lambda f_{\langle st\rangle}.\lambda e.\exists x[Agent(e, x) \& f(e)]$
  Voice$_{PASS}$
- $\lambda e.citing(e) \& Theme(e, Mary)$
  VP
  - $\lambda x.\lambda e.citing(e) \& Theme(e, x)$
    V
    cite
  - $Mary$
    DP
    Mary

The second semantic denotation of Voice$_{PASS}$ leaves the agent position open to be accessed by the 'by'-phrase (see Bruening 2013 for this denotation of the 'by'-phrase, modulo n. 2).

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[71] Alexiadou et al. 2015 analyzes the Greek passive as structurally different from the English on the grounds that the Greek is unproductive, while the English is productive. An alternative is that the difference in productivity is due to learning, not syntactic structure; see Yang 2016 for a learning approach to productivity.

[72] See n. 2.

(125) Mary was cited by Sue.

$$\lambda e.Agent(e, Sue) \,\&\, citing(e) \,\&\, Theme(e, Mary)$$
Voice$_{PASS}$P

$\lambda x.\lambda e.Agent(e, x) \,\&\, citing(e) \,\&\, Theme(e, Mary)$
Voice$_{PASS}$P

$\lambda f_{\langle st \rangle}.\lambda x.\lambda e.Agent(e, x) \,\&\, f(e)$
Voice$_{PASS}$

$\lambda e.citing(e) \,\&\, Theme(e, Mary)$
VP

$\lambda f_{\langle e,st \rangle}.\lambda e.f(e, Sue)$
PP

$\lambda x.\lambda f_{\langle e,st \rangle}.\lambda e.f(e, x)$ P
by

*Sue*
DP
Sue

Importantly, we do not expect the morphological realization of the passive to be sensitive to the two semantic denotations of Voice$_{PASS}$. We adopt a Y-model of grammar with a post-syntactic morphology (Halle & Marantz 1993, Chomsky 2000, and subsequent), wherein the morphological realization of items is determined on the PF (phonetic form) branch of the derivation without access to the semantic denotations on the LF branch. Since the morphosyntactic features of Voice$_{PASS}$ are uniform, including the external θ-role but no [•D•] feature to select a DP specifier, the realization of Voice$_{PASS}$ is also uniform, regardless of the presence/absence of the 'by'-phrase.

This is the core syntax and semantics of the passive in contrast with the active. Other properties are language-specific, superimposed on this basic structural difference—the (non)availability of passives of unergatives and of pseudo-passivization, the presence/absence of object promotion to the grammatical subject position, and so on (for recent related discussion, see Bruening 2013, Legate 2014, Alexiadou et al. 2015, inter alia).

To summarize, in this section we have argued that the absence of passives of passives crosslinguistically supports an analysis of the passive that involves not a passivization rule, be it lexical or syntactic, but rather alternative syntactic structure building. Such a syntactic analysis benefits from the intrinsic ordering imposed by the syntactic tree and its compositional interpretation, whereby the relationship between the verb and its theme is determined lower than and prior to introduction of the agent. Demotion of the theme, then, must be accomplished independently from demotion of the agent (as, for example, in an antipassive). A passive of a passive, in which demotion of the theme is dependent on prior demotion of the agent, is precluded. Further, we have developed a specific instantiation of this type of analysis, proposing that passive is a subtype of Voice$^0$, the syntactic head that introduces the agent. The passive Voice head does not select for a specifier to assign the agent θ-role to, but rather either existentially quantifies over the agent position, or leaves it open to be accessed by a 'by'-phrase adjunct.

**6. CONCLUSIONS AND EXTENSIONS.** Work of David Perlmutter and Paul Postal in the 1970s and 1980s claimed that the passive cannot apply to passives. Three languages are often cited as counterexamples to this generalization: Turkish, Lithuanian, and Classical Sanskrit. In this article, we carefully examined each of these in turn, and in each case we discovered that the language in fact strongly supports Perlmutter and Postal's claim. The Turkish construction is an impersonal of a passive; the passive itself can only apply to verbs with a thematic subject and structurally case-marked object in the active. The Lithuanian is an evidential of a passive, with the grammatical subject receiving structural genitive case. The Sanskrit construction is not a passive at all, but

rather instrumental case assignment to the theme of an unaccusative. We argued that the generalization that passives cannot passivize is naturally captured on an approach to the passive that involves alternative syntactic structure building, rather than a lexical or syntactic rule. We developed a specific analysis of this type, whereby the passive is a type of Voice head that introduces the external θ-role but does not project a DP into its specifier. When the passive occurs with a 'by'-phrase, the agent position is left open to be accessed by the 'by'-phrase; when it does not, the agent position is existentially quantified on Voice[0].

Finally, we briefly note that Perlmutter and Postal's work also claimed that unaccusatives cannot passivize. Turkish, Lithuanian, and Sanskrit have been cited as exceptions to this generalization as well, but we have shown that unaccusatives do not passivize in these languages. This was shown for Turkish in 7b, and for Lithuanian in 93. For Sanskrit, this was illustrated by the presence of instrumental agreement on predicates in 111–112 when the theme of an unaccusative is in the instrumental; as discussed there, a passive analysis would have predicted no agreement, since 'by'-phrases do not trigger case agreement. Prima facie counterexamples are more widely attested, however. For example, Primus 2011 and Kiparsky 2013 mention passive unaccusatives in several Germanic languages, including German, Dutch, and Swedish. Indeed, Perlmutter & Postal 1984 also discussed such examples, but claimed that these have a marked agentive or volitional interpretation, and hence constitute passives of unergatives, not passives of unaccusatives. This interpretation is evident in 126.[73]

> (126) German
>
> Für den lieben   König und Herrn wird alles        getan, wird treulich
> for the beloved King and lord   is   everything done  is    faithfully
> > gekämpft, wird willig     geblutet, wird freudig in den Tod
> > battled,  is    willingly bled,     is    happily in the death
> > gegangen, für ihn  wird mehr als   gestorben.
> > gone,       for him is    more than died      (Perlmutter & Postal 1984:111)

Such an interpretation is also reported as required for apparent impersonal passives of unaccusatives in Icelandic (see Thráinsson 2007:268 and Sigurðsson 2017:366–68, inter alia).

An alternative possibility raised by our discussion of Turkish is that prima facie passives of unaccusatives in some languages are impersonals of unaccusatives with morphology overlapping between the passive and the impersonal. This would allow for a nonagentive, nonvolitional interpretation of apparent passives of unaccusatives, which seems to be required for some languages. A referee provides the following attested example from Swedish, describing a drunken party.

> (127) Det snubbla-de-s,    det ramla-de-s       och somna-de-s.
> it    stumble-PST-PASS it   collapse-PST-PASS and fall.asleep-PST-PASS
> 'It was stumbled, it was collapsed, and it was fallen asleep.'

In this vein, it is perhaps significant that impersonal passives in Swedish cannot appear with an *av* 'by'-phrase and are attested only in the *-s* passive, but are excluded from the passive formed with the auxiliary *bli* 'be' and a perfect participle (Engdahl 2006). The *-s* morpheme is also used for reciprocals and middles in the language, and it is cognate

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[73] Similarly, a German speaker we consulted allowed passivization of 'die' in the context of a coma patient only if the patient in the coma chose to give up on life. Not all of Primus's examples are amenable to this characterization, indicating variation or an additional unknown factor. Note also that Primus's examples do not include 'by'-phrases.

with morphemes in other languages that have a variety of uses, including reflexives, reciprocals, middles, passives, and impersonals; this has led to analyses more nuanced than simple passivization (see, for example, Cinque 1988, Chierchia 1995b, Dobrovie-Sorin 1998, D'Alessandro 2007, Wood 2014, MacDonald 2017, Schäfer 2017, inter alia).

A particularly striking alternative comes from Irish, analyzed by McCloskey 1996. The construction in question is passive in form but is used to express perfective aspect.

(128) Tá      teach ceannaithe agam.
      be.PRS house bought     by.me
         'I have bought a house.'                                    (McCloskey 1996:254)

McCloskey 1996 demonstrates that a subset of unaccusative predicates, salient unaccusatives, have a PP as their sole argument, yet for some varieties of Irish may occur in the perfective passive, retaining the interpretation of perfective aspect, while involving no argument demotion at all. The following illustrates with the predicate 'rise with' meaning 'do well', first in the active progressive, then in the perfective passive.

(129) a. Bhí ag éirí    réasúnta   maith liom    i líníocht.
         was rise.PROG reasonable well   with.me in drawing
            'I was doing fairly well in drawing.'                    (McCloskey 1996:248)
      b. go bhfuil éirighthe leis      sa    n-obair
         C  is     rose      with.him in.the work
            'that he has done well in the business'                  (McCloskey 1996:257)

See that work for details. This case serves as an important reminder that when the morphosyntax of the passive is extended to a wider class of predicates, its function may differ accordingly. This is also clear from the pervasive syncretism between the passive and other morphemes crosslinguistically, but bears emphasizing in this context.

An additional possibility is that some languages do have passives of unaccusatives, requiring the analysis of passives to extend to them. On our approach, this would perhaps be best captured by positing a variant of the $v^0$ 'be/become' that dominates unaccusative verbs (Marantz 1997 and following), a variant that introduces the existential quantification. Thorough investigation of apparent passives of unaccusatives must await further work.

## REFERENCES

ACKEMA, PETER, and AD NEELEMAN. 2018. *Features of person: From the inventory of persons to their morphological realization*. Cambridge, MA: MIT Press.

ADGER, DAVID. 2003. *Core syntax: A minimalist approach*. Oxford: Oxford University Press.

AIKHENVALD, ALEXANDRA Y. 2004. *Evidentiality*. Oxford: Oxford University Press.

AKKUŞ, FARUK. 2021. *(Implicit) argument introduction, voice and causatives*. Philadelphia: University of Pennsylvania dissertation, to appear.

ALEXIADOU, ARTEMIS, and ELENA ANAGNOSTOPOULOU. 1998. Parametrizing AGR: Word order, V-movement, and EPP-checking. *Natural Language and Linguistic Theory* 16. 491–539. DOI: 10.1023/A:1006090432389.

ALEXIADOU, ARTEMIS; ELENA ANAGNOSTOPOULOU; and FLORIAN SCHÄFER. 2015. *External arguments in transitivity alternations: A layering approach*. Oxford: Oxford University Press.

ALEXIADOU, ARTEMIS; FLORIAN SCHÄFER; and GIORGOS SPATHAS. 2014. Delimiting voice in Germanic: On object-drop and naturally reflexive verbs. *North East Linguistic Society (NELS)* 44.1–14.

AMBRAZAS, VYTAUTAS. 1994. On the interpretation of Lithuanian constructions with neuter passive participles. *Linguistica Baltica* 3.7–11.

AMBRAZAS, VYTAUTAS; EMMA GENIUŠIENĖ; ALEKSAS GIRDENIS; NIJOLĖ SLIŽIENĖ; DALIJA TEKORIENĖ; ADELĖ VALECKIENĖ; and ELENA VALIULYTĖ. 1997. *Lithuanian grammar*. Vilnius: Baltos Lankos.

Babby, Leonard. 1980. The syntax of surface case. *Cornell Working Papers in Linguistics* 1.1–32.

Bach, Emmon W. 1980. In defense of passive. *Linguistics and Philosophy* 3.297–341. DOI: 10.1007/BF00401689.

Baker, Mark. 1985. The mirror principle and morphosyntactic explanation. *Linguistic Inquiry* 16.373–415. Online: https://www.jstor.org/stable/4178442.

Baker, Mark. 1988. *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.

Baker, Mark; Kyle Johnson; and Ian Roberts. 1989. Passive arguments raised. *Linguistic Inquiry* 20.219–51. Online: https://www.jstor.org/stable/4178625.

Biktimir, Tuvana. 1986. Impersonal passives and the *-arak* construction in Turkish. *Studies in Turkish linguistics*, ed. by Dan Isaac Slobin and Karl Zimmer, 53–75. Amsterdam: John Benjamins.

Bjorkmann, Bronwyn M., and Hedde Zeijlstra. 2019. Checking up on (ɸ-)Agree. *Linguistic Inquiry* 50.527–69. DOI: 10.1162/ling_a_00319.

Blain, Eleanor, and Rose-Marie Déchaine. 2006. The evidential domain hypothesis. *University of British Columbia Working Papers in Linguistics (Proceedings of WSCLA XI)* 19.12–25.

Blevins, James P. 2003. Passives and impersonals. *Journal of Linguistics* 39.472–520. DOI: 10.1017/S0022226703002081.

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

Bresnan, Joan. 2001. *Lexical-functional syntax*. Oxford: Blackwell.

Bruening, Benjamin. 2013. *By*-phrases in passives and nominals. *Syntax* 16.1–41. DOI: 10.1111/j.1467-9612.2012.00171.x.

Cardona, George. 1976. Subject in Sanskrit. *The notion of subject in South Asian languages*, vol. 2, ed. by Manindra K. Verma, 1–38. Madison: University of Wisconsin, South Asian Studies.

Charnavel, Isabelle. 2019. *Locality and logophoricity: A theory of exempt anaphora*. Oxford: Oxford University Press.

Chierchia, Gennaro. 1995a. *Dynamics of meaning*. Chicago: University of Chicago Press.

Chierchia, Gennaro. 1995b. The variability of impersonal subjects. *Quantification in natural languages*, ed. by Emmon Bach, Eloise Jelinek, Angelika Kratzer, and Barbara H. Partee, 107–43. Dordrecht: Springer. DOI: 10.1007/978-94-017-2817-1_6.

Chierchia, Gennaro. 2004. A semantics for unaccusatives and its syntactic consequences. *The unaccusativity puzzle: Explorations of the syntax-lexicon interface*, ed. by Artemis Alexiadou, Elena Anagnostopoulou, and Martin Everaert, 22–59. Oxford: Oxford University Press.

Chomsky, Noam. 1965. *Aspects of the theory of syntax*. Cambridge, MA: MIT Press.

Chomsky, Noam. 1986. *Knowledge of language: Its nature, origin, and use*. New York: Praeger.

Chomsky, Noam. 1995a. Bare phrase structure. *Government and binding theory and the minimalist program*, ed. by Gurt Webelhuth, 383–439. Cambridge, MA: Blackwell.

Chomsky, Noam. 1995b. *The minimalist program*. Cambridge, MA: MIT Press.

Chomsky, Noam. 2000. Minimalist inquiries. *Step by step: Essays on minimalism in honor of Howard Lasnik*, ed. by Roger Martin, David Michaels, and Juan Uriagereka, 89–155. Cambridge, MA: MIT Press.

Chomsky, Noam, and Howard Lasnik. 1993. The theory of principles and parameters. *Syntax: An international handbook of contemporary research*, ed. by Joachim Jacobs, Arnim von Stechow, Wolfgang Sternefeld, and Theo Vennemann, 506–69. Berlin: Walter de Gruyter.

Cinque, Guglielmo. 1988. On *si* constructions and the theory of *arb*. *Linguistic Inquiry* 19.521–81. Online: https://www.jstor.org/stable/4178596.

Cinque, Guglielmo. 1999. *Adverbs and functional heads: A cross-linguistic perspective*. Oxford: Oxford University Press.

Collins, Chris. 2005. A smuggling approach to the passive in English. *Syntax* 8.81–120. DOI: 10.1111/j.1467-9612.2005.00076.x.

Comrie, Bernard. 1977. In defense of spontaneous demotion: The impersonal passive. *Grammatical relations*, ed. by Peter Cole and Jerrold M. Saddock, 47–58. New York: Academic Press.

Culicover, Peter W., and Ray Jackendoff. 2005. *Simpler syntax*. Oxford: Oxford University Press.

D'Alessandro, Roberta. 2007. *Impersonal* si *constructions*. Berlin: Mouton de Gruyter.

de Swart, Henriëtte. 1993. *Adverbs of quantification: A generalized quantifier approach*. New York: Garland.

Deo, Ashwini. 2015. The semantic and pragmatic underpinnings of grammaticalization paths: The progressive to imperfective shift. *Semantics and Pragmatics* 8:14. DOI: 10.3765/sp.8.14.

Diesing, Molly. 1992. *Indefinites*. Cambridge, MA: MIT Press.

Dobrovie-Sorin, Carmen. 1998. Impersonal *se* constructions in Romance and the passivization of unergatives. *Linguistic Inquiry* 29.399–437. DOI: 10.1162/002438998553806.

Egerland, Verner. 2003. Impersonal pronouns in Scandinavian and Romance. *Working Papers in Scandinavian Syntax* 71.75–102.

Embick, David. 1998. Voice systems and the syntax/morphology interface. *MIT Working Papers in Linguistics (Papers from the UPenn/MIT Roundtable on Argument Structure and Aspect)* 32.41–72.

Engdahl, Elisabet. 2006. Semantic and syntactic patterns in Swedish passives. *Demoting the agent: Passive, middle and other voice phenomena*, ed. by Benjamin Lyngfelt and Torgrim Solstad, 21–45. Amsterdam: John Benjamins. DOI: 10.1075/la.96.

Fenger, Paula. 2018. How impersonal does *one* get? A study of *man*-pronouns in Germanic. *The Journal of Comparative Germanic Linguistics* 21.291–325. DOI: 10.1007/s10828-018-9101-0.

Geniušienė, Emma Š. 2006. Passives in Lithuanian (in comparison with Russian). *Passivization and typology: Form and function*, ed. by Werner Abraham and Larisa Leisiö, 29–61. Amsterdam: John Benjamins.

George, Leland, and Jaklin Kornfilt. 1977. Infinitival double passives in Turkish. *North East Linguistic Society (NELS)* 7.65–79.

Gronemeyer, Claire. 1997. Evidentiality in Lithuanian. *Lund University Working Papers in Linguistics* 46.93–112. Online: https://journals.lub.lu.se/LWPL/article/view/2450.

Halle, Morris, and Alec Marantz. 1993. Distributed morphology and the pieces of inflection. *The view from Building 20: Essays in linguistics in honor of Sylvain Bromberger*, ed. by Kenneth Hale and Samuel Jay Keyser, 111–76. Cambridge, MA: MIT Press.

Harley, Heidi. 1995. *Subjects, events, and licensing*. Cambridge, MA: MIT dissertation. Online: http://hdl.handle.net/1721.1/11073.

Haspelmath, Martin. 1990. The grammaticization of passive morphology. *Studies in Language* 14.25–72. DOI: 10.1075/sl.14.1.03has.

Heim, Irene. 1982. *The semantics of definite and indefinite noun phrases*. Cambridge, MA: MIT dissertation.

Heim, Irene, and Angelika Kratzer. 1998. *Semantics in generative grammar*. Oxford: Blackwell.

Hoekstra, Jarich. 2010. On the impersonal pronoun *men* in Modern West Frisian. *The Journal of Comparative Germanic Linguistics* 13.31–59. DOI: 10.1007/s10828-010-9036-6.

Holmberg, Anders. 2005. Is there a little pro? Evidence from Finnish. *Linguistic Inquiry* 36.533–64. DOI: 10.1162/002438905774464322.

Holmberg, Anders. 2010. The null generic subject pronoun in Finnish: A case of incorporation in T. *Parametric variation: Null subjects in minimalist theory*, ed. by Theresa Biberauer, Anders Holmberg, Ian Roberts, and Michelle Sheehan, 200–230. Cambridge: Cambridge University Press. DOI: 10.1017/CBO9780511770784.006.

Holvoet, Axel. 2001. On the paradigm of the oblique mood in Lithuanian and Latvian. *Linguistica Baltica* 9.69–86.

Huang, C.-T. James. 1984. On the distribution and reference of empty pronouns. *Linguistic Inquiry* 15.531–74. Online: https://www.jstor.org/stable/4178404.

İnce, Atakan. 2006. Pseudo-sluicing in Turkish. *University of Maryland Working Papers in Linguistics* 14.111–26.

Ingason, Anton Karl; Iris Edda Nowenstein; and Einar Freyr Sigurðsson. 2016. The voice-adjunction theory of agentive 'by'-phrases and the Icelandic impersonal passive. *Working Papers in Scandinavian Syntax* 97.40–56.

Jaeggli, Osvaldo. 1986. Passive. *Linguistic Inquiry* 17.587–622. Online: https://www
.jstor.org/stable/4178510.

Jaeggli, Osvaldo, and Kenneth J. Safir. 1989. The null subject parameter and parametric theory. *The null subject parameter*, ed. by Osvaldo Jaeggli and Kenneth J. Safir, 1–44. Dordrecht: Kluwer. DOI: 10.1007/978-94-009-2540-3_1.

Jelinek, Eloise. 1984. Empty categories, case, and configurationality. *Natural Language and Linguistic Theory* 2.39–76. DOI: 10.1007/BF00233713.

Keenan, Edward L. 1980. Passive is phrasal (not sentential or lexical). *Lexical grammar*, ed. by Teun Hoekstra, Harry van der Hulst, and Michael Moortgat, 181–214. Dordrecht: Foris.

Keenan, Edward L., and Alan Timberlake. 1985. Predicate formation rules in universal grammar. *West Coast Conference on Formal Linguistics (WCCFL)* 4.123–38.

Kibort, Anna. 2001. The Polish passive and impersonal in lexical mapping theory. *Proceedings of the LFG '01 Conference*, 163–83. Online: http://web.stanford.edu/group /cslipublications/cslipublications/LFG/6/pdfs/lfg01kibort.pdf.

Kiparsky, Paul. 2013. Towards a null theory of the passive. *Lingua* 125.7–33. DOI: 10.1016 /j.lingua.2012.09.003.

Knecht, Laura Ellen. 1985. *Subject and object in Turkish*. Cambridge, MA: MIT dissertation.

Kornfilt, Jaklin. 1997. *Turkish*. London: Routledge.

Kornfilt, Jaklin. 2001. Local and long-distance reflexives in Turkish. *Long-distance reflexives*, ed. by Peter Cole, Gabriella Hermon, and C.-T. James Huang, 197–226. San Diego: Academic Press.

Kornfilt, Jaklin. 2003. Scrambling, subscrambling and case in Turkish. *Word order and scrambling*, ed. by Simin Karimi, 125–155. Oxford: Blackwell.

Kratzer, Angelika. 1996. Severing the external argument from its verb. *Phrase structure and the lexicon*, ed. by Johan Rooryck and Laurie Zaring, 109–37. Dordrecht: Kluwer. DOI: 10.1007/978-94-015-8617-7_5.

Kratzer, Angelika. 2009. Making a pronoun: Fake indexicals as windows into the properties of pronouns. *Linguistic Inquiry* 40.187–237. DOI: 10.1162/ling.2009.40.2.187.

Landau, Idan. 2008. Two routes of control: Evidence from case transmission in Russian. *Natural Language and Linguistic Theory* 26.877–924. DOI: 10.1007/s11049-008-9054 -0.

Landau, Idan. 2010. The explicit syntax of implicit arguments. *Linguistic Inquiry* 41.357– 88. DOI: 10.1162/LING_a_00001.

Landau, Idan. 2015. *A two-tiered theory of control*. Cambridge, MA: MIT Press.

Lavine, James E. 2006. Is there a passive evidential strategy in Lithuanian? *Chicago Linguistic Society* 42.41–55.

Lavine, James E. 2010. Mood and a transitivity restriction in Lithuanian: The case of the inferential evidential. *Baltic Linguistics* 1.115–42. Online: http://www.balticlinguistics .uw.edu.pl/sites/default/files/full_texts/BL1_Lavine.pdf.

Legate, Julie Anne. 2012. Subjects in Acehnese and the nature of the passive. *Language* 88.495–525. DOI: 10.1353/lan.2012.0069.

Legate, Julie Anne. 2014. *Voice and v: Lessons from Acehnese*. Cambridge, MA: MIT Press.

Lewis, David. 1975. Adverbs of quantification. *Formal semantics of natural language*, ed. by Edward L. Keenan, 3–15. Cambridge: Cambridge University Press. DOI: 10.1017 /CBO9780511897696.003.

MacDonald, Jonathan E. 2017. An implicit projected argument in Spanish impersonal- and passive-*se* constructions. *Syntax* 20.353–83. DOI: 10.1111/synt.12146.

Malamud, Sophia A. 2013. (In)definiteness-driven typology of arbitrary items. *Lingua* 126.1–31. DOI: 10.1016/j.lingua.2012.11.003.

Malchukov, Andrej, and Anna Siewierska. 2011. *Impersonal constructions: A cross-linguistic perspective*. Philadelphia: John Benjamins.

Maling, Joan. 2010. Unpassives of unaccusatives. *Hypothesis A/hypothesis B: Linguistic explorations in honor of David M. Perlmutter*, ed. by Donna B. Gerdts, John C. Moore, and Maria Polinsky, 275–92. Cambridge, MA: MIT Press.

Manning, Christopher D. 1996. *Ergativity: Argument structure and grammatical relations*. Stanford, CA: CSLI Publications.

MARANTZ, ALEC. 1997. No escape from syntax: Don't try morphological analysis in the privacy of your own lexicon. *University of Pennsylvania Working Papers in Linguistics (Proceedings of the 21st annual Penn Linguistics Colloquium)* 4(2).201–25. Online: http://repository.upenn.edu/pwpl/vol4/iss2/14.

MASSAM, DIANE. 2001. Pseudo noun incorporation in Niuean. *Natural Language and Linguistic Theory* 19.153–97. DOI: 10.1023/A:1006465130442.

MCCLOSKEY, JAMES. 1996. Subjects and subject positions in Irish. *The syntax of the Celtic languages: A comparative perspective*, ed. by Robert D. Borsley and Ian Roberts, 241–83. Cambridge: Cambridge University Press. DOI: 10.1017/CBO9780511586279 .009.

MCCLOSKEY, JAMES. 2007. The grammar of autonomy in Irish. *Natural Language and Linguistic Theory* 25.825–57. DOI: 10.1007/s11049-007-9028-7.

MCCLOSKEY, JAMES, and KENNETH HALE. 1984. On the syntax of person-number inflection in modern Irish. *Natural Language and Linguistic Theory* 1.487–533. DOI: 10.1007 /BF00417057.

MCGINNIS, MARTHA. 2001. Variation in the phase structure of applicatives. *Linguistic Variation Yearbook* 1.105–46. DOI: 10.1075/livy.1.06mcg.

MERCHANT, JASON. 2001. *The syntax of silence: Sluicing, islands, and the theory of ellipsis*. Oxford: Oxford University Press.

MORAVCSIK, EDITH A. 1995. Summing up suffixaufnahme. *Double case: Agreement by suffixaufnahme*, ed. by Frans Plank, 451–84. Oxford: Oxford University Press.

MÜLLER, GEREON. 2010. On deriving CED effects from the PIC. *Linguistic Inquiry* 41.35–82. DOI: 10.1162/ling.2010.41.1.35.

MÜLLER, GEREON. 2014. On the short life cycle of external arguments in passive derivations. Leipzig: University of Leipzig, MS.

MURPHY, ANDREW. 2014. Stacked passives in Turkish. *Linguistische Arbeitsberichte (Topics at InfL)* 92.263–304. Online: https://www.philol.uni-leipzig.de/fileadmin/Fakult% C3%A4t_Philo/Linguistik/Forschung/LAB/LAB_92/LAB92_09_murphy.pdf.

NAKIPOĞLU-DEMIRALP, MINE. 2001. The referential properties of the implicit arguments of impersonal passive constructions. *The verb in Turkish*, ed. by Eser Erguvanlı Taylan, 129–50. Amsterdam: John Benjamins.

NEELEMAN, AD, and KRISTA SZENDRÖI. 2007. Radical pro drop and the morphology of pronouns. *Linguistic Inquiry* 38.671–714. DOI: 10.1162/ling.2007.38.4.671.

NERBONNE, JOHN A. 1982. Some passives not characterized by universal rules: Subjectless impersonal. *OSU Working Papers in Linguistics (Grammatical relations and relational grammar)* 26.59–92. Online: http://hdl.handle.net/1811/81456.

NUNES, JAIRO. 1994. Another look at Lithuanian impersonal passives. *Studies in the Linguistic Sciences* 24.347–60.

OSTLER, NICHOLAS DAVID MACLAUCHLAN. 1979. *Case-linking: A theory of case and verb diathesis applied to Classical Sanskrit*. Cambridge, MA: MIT dissertation. Online: http://www.ai.mit.edu/projects/dm/theses/ostler79.pdf.

ÖZKARAGÖZ, İNCI. 1980. Evidence from Turkish for the unaccusative hypothesis. *Berkeley Linguistics Society* 6.411–22.

ÖZKARAGÖZ, İNCI. 1986. Monoclausal double passives in Turkish. *Studies in Turkish linguistics*, ed. by Dan Isaac Slobin and Karl Zimmer, 77–91. Amsterdam: John Benjamins.

ÖZSOY, AYŞE SUMRU. 2009. Argument structure, animacy, syntax and semantics of passivization in Turkish: A corpus-based approach. *Corpus analysis and variation in linguistics*, ed. by Yuji Kawaguchi, Makoto Minegishi, and Jacques Durand, 259–79. Amsterdam: John Benjamins.

ÖZTÜRK, BALKIZ. 2005. *Case, referentiality and phrase structure*. Amsterdam: John Benjamins.

PERLMUTTER, DAVID M. 1982. Syntactic representation, syntactic levels, and the notion of subject. *The nature of syntactic representation*, ed. by Pauline Jacobson and Geoffrey K. Pullum, 283–340. Dordrecht: Reidel. DOI: 10.1007/978-94-009-7707-5_8.

PERLMUTTER, DAVID M., and PAUL M. POSTAL. 1977. Toward a universal characterization of passivization. *Berkeley Linguistics Society* 3.394–417. DOI: 10.3765/bls.v3i0.2266.

PERLMUTTER, DAVID M., and PAUL M. POSTAL. 1984. The 1-advancement exclusiveness law. *Studies in relational grammar*, vol. 2, ed. by David M. Perlmutter and Carol Rosen, 81–125. Chicago: University of Chicago Press.

PESETSKY, DAVID. 1995. *Zero syntax*. Cambridge, MA: MIT Press.

PESETSKY, DAVID, and ESTHER TORREGO. 2007. The syntax of valuation and the interpretability of features. *Phrasal and clausal architecture: Syntactic derivation and interpretation*, ed. by Simin Karimi, Vida Samiian, and Wendy K. Wilkins, 262–94. Amsterdam: John Benjamins.

PITTEROFF, MARCEL, and FLORIAN SCHÄFER. 2019. Implicit control crosslinguistically. *Language* 95.136–84. DOI: 10.1353/lan.2019.0016.

POLINSKY, MARIA. 2017. Antipassive. *The Oxford handbook of ergativity*, ed. by Jessica Coon, Diane Massam, and Lisa deMena Travis, 308–31. Oxford: Oxford University Press. DOI: 10.1093/oxfordhb/9780198739371.013.13.

POSTAL, PAUL. 1986. *Studies of passive clauses*. Albany: State University of New York Press.

PREMINGER, OMER. 2013. That's not how you agree: A reply to Zeijlstra. *The Linguistic Review* 30.491–500. DOI: 10.1515/tlr-2013-0015.

PRIMUS, BEATRICE. 2011. Animacy and telicity: Semantic constraints on impersonal passives. *Lingua* 121.80–99. DOI: 10.1016/j.lingua.2010.07.009.

PYLKKÄNEN, LIINA. 2008. *Introducing arguments*. Cambridge, MA: MIT Press.

RAMCHAND, GILLIAN CATRIONA. 2008. *Verb meaning and the lexicon: A first-phase syntax*. Cambridge: Cambridge University Press.

REZAC, MILAN, and MÉLANIE JOUITTEAU. 2016. The ways of referential deficiency: Impersonal *on* and its kin. Bayonne: CNRS-IKER, MS. Online: https://www.iker.cnrs.fr/IMG/pdf/rezac_jouitteau.impersonal.pdf.

RICHARDS, NORVIN. 2012. Lardil 'case stacking' and the timing of case assignment. *Syntax* 16.1–35. DOI: 10.1111/j.1467-9612.2012.00169.x.

RIZZI, LUIGI. 1982. *Issues in Italian syntax*. Dordrecht: Foris.

RIZZI, LUIGI. 1986. Null objects in Italian and the theory of *pro*. *Linguistic Inquiry* 17.501–57. Online: https://www.jstor.org/stable/4178501.

ROEPER, THOMAS. 1987. Implicit arguments and the head-complement relation. *Linguistic Inquiry* 18.267–310. Online: https://www.jstor.org/stable/4178538.

SCHÄFER, FLORIAN. 2017. Romance and Greek medio-passives and the typology of Voice. *The verbal domain*, ed. by Roberta D'Alessandro, Irene Franco, and Ángel J. Gallego, 129–51. Oxford: Oxford University Press. DOI: 10.1093/oso/9780198767886.003.0006.

SELLS, PETER. 1987. Aspects of logophoricity. *Linguistic Inquiry* 18.445–79. Online: https://www.jstor.org/stable/4178550.

ŠEREIKAITĖ, MILENA. 2020a. *Voice and case phenomena in Lithuanian morphosyntax*. Philadelphia: University of Pennsylvania dissertation.

ŠEREIKAITĖ, MILENA. 2020b. Active existential in Lithuanian: Remarks on Burzio's generalization. *Linguistic Inquiry*, Just accepted. DOI: 10.1162/ling_a_00392.

SIGURĐSSON, EINAR FREYR. 2017. *Deriving case, agreement and voice phenomena in syntax*. Philadelphia: University of Pennsylvania dissertation. Online: https://repository.upenn.edu/edissertations/2585/.

SPEAS, MARGARET. 1994. Null arguments in a theory of economy of projection. *Functional projections* (University of Massachusetts occasional papers in linguistics 17), ed. by Elena Benedicto and Jeffrey Runner, 179–208. Amherst, MA: GLSA Publications.

SPEAS, MARGARET. 2004. Evidentiality, logophoricity and the syntactic representation of pragmatic features. *Lingua* 114.255–76. DOI: 10.1016/S0024-3841(03)00030-5.

SPEAS, MARGARET. 2006. Economy, agreement and the representation of null arguments. *Arguments and agreement*, ed. by Peter Ackema, Patrick Brandt, Maaike Schoorlemmer, and Fred Weerman, 35–75. Oxford: Oxford University Press.

SPRAUNIENĖ, BIRUTĖ; AUKSĖ RAZANOVAITĖ; and ERIKA JASIONYTĖ. 2015. Solving the puzzle of the Lithuanian passive. *Voice and argument structure in Baltic*, ed. by Axel Holvoet and Nicole Nau, 323–65. Amsterdam: John Benjamins.

STIEBELS, BARBARA. 2002. *Typologie des Argumentlinkings: Ökonomie und Expressivität*. Berlin: Akademie.

TAN, TAMISHA L., and NIELS KÜHLERT. 2019. The double duty of the Sakha 'passive'. Abstract for the 5th Workshop on Turkic and languages in contact with Turkic (Tu+5). Online: https://cpb-us-w2.wpmucdn.com/sites.udel.edu/dist/1/9450/files/2019/12/Tu5-Deanonymised.pdf.

THRÁINSSON, HÖSKULDUR. 2007. *The syntax of Icelandic*. Cambridge: Cambridge University Press.

TIMBERLAKE, ALAN. 1982. The impersonal passive in Lithuanian. *Berkeley Linguistics Society* 8.508–24. DOI: 10.3765/bls.v8i0.2067.

TONYALI, NIL. 2015. Non-structural datives in Turkish. Istanbul: Boğaziçi University master's thesis.

VAIKŠNORAITĖ, ELENA. 2015. Case and non-verbal predication: The syntax of Lithuanian control clauses. Leiden: Leiden University master's thesis.

VAN URK, COPPE. 2013. Visser's generalization: The syntax of control and the passive. *Linguistic Inquiry* 44.168–78. DOI: 10.1162/LING_a_00124.

WHITNEY, WILLIAM DWIGHT. 1950. *Sanskrit grammar*. Cambridge, MA: Harvard University Press.

WIEMER, BJÖRN. 2006. Grammatical evidentiality in Lithuanian (a typological assessment). *Baltistica* 36.33–49.

WILLIAMS, EDWIN. 1987. Implicit arguments, the binding theory, and control. *Natural Language and Linguistic Theory* 5.151–80. DOI: 10.1007/BF00166581.

WOOD, JIM. 2014. Reflexive *-st* verbs in Icelandic. *Natural Language and Linguistic Theory* 32.1387–1425. DOI: 10.1007/s11049-014-9243-y.

WUNDERLICH, DIETER. 1997. Cause and the structure of verbs. *Linguistic Inquiry* 28.27–68. Online: https://www.jstor.org/stable/4178964.

WURMBRAND, SUSI. 2001. *Infinitives: Restructuring and clause structure*. Berlin: Mouton de Gruyter.

WURMBRAND, SUSI. 2014. The Merge condition: A syntactic approach to selection. *Minimalism and beyond: Radicalizing the interfaces*, ed. by Peter Kosta, Steven L. Franks, Teodora Radev-Bork, and Lilia Schürcks, 139–77. Amsterdam: John Benjamins.

WURMBRAND, SUSI, and KOJI SHIMAMURA. 2017. The features of the voice domain: Actives, passives, and restructuring. *The verbal domain*, ed. by Roberta d'Alessandro, Irene Franco, and Ángel J. Gallego, 179–204. Oxford: Oxford University Press. DOI: 10.1093/oso/9780198767886.003.0008.

YANG, CHARLES. 2016. *The price of linguistic productivity*. Cambridge, MA: MIT Press.

ZAENEN, ANNIE; JOAN MALING; and HÖSKULDUR THRÁINSSON. 1985. Case and grammatical functions: The Icelandic passive. *Natural Language and Linguistic Theory* 3.441–83. DOI: 10.1007/BF00133285.

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