Voice mismatches beyond passives: Sluicing with active impersonal antecedents

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Abstract

While ellipsis tolerates various kinds of mismatches, sluicing does not allow for a mismatch in active/passive voice between the ellipsis site and its antecedent. Merchant's (2013) analysis of the impossibility of voice mismatches under sluicing involves syntactic identity and different features of the Voice head. I will show that this analysis incorrectly predicts that voice mismatches should be possible in the passive-like active impersonal constructions in Polish, Irish and Estonian. However, the syntactic identity approach can be rescued by appealing to a different source for the identity violation, analogous to argument structure mismatches.

1   Introduction

It is well-known that various kinds of mismatches are permitted between an ellipsis site and its antecedent, for example with tense (1a), finiteness (1b) and agreement (1b) (see e.g. Sag 1976; Merchant 2001). In (0a), for example, the antecedent verb *talked* is inflected for past tense, whereas the verb in the ellipsis site would be non-finite (*talk*).

(1) *Inflectional mismatches under ellipsis*:

  a. Steve talked to Sally, and I will [$_{\text{VP}}$ ⟨talk to Sally⟩] tomorrow
  b. I can't play quarterback, I don't know how [$_{\text{TP}}$ ⟨to play quarterback⟩]
  c. We work harder than John [$_{\text{TP}}$ ⟨works⟩]

Furthermore, it has been noted that VP ellipsis also generally permits mismatches regarding voice (active vs. passive) (e.g. Sag 1976; Hardt 1993; Kehler 2000; Merchant 2008, 2013; Tanaka 2011*b*). In (2a), an active VP can antecede ellipsis of a passive VP, and vice versa in (2b).

(2) *Voice mismatches under VP ellipsis* (Merchant 2013:78f.):

  a. The janitor must remove$_{\text{ACT}}$ the trash whenever it is apparent that it should be
      [$_{\text{VP}}$ ⟨removed$_{\text{PASS}}$⟩]
  b. The system can be used$_{\text{PASS}}$ by anyone who wants to [$_{\text{VP}}$ ⟨use$_{\text{ACT}}$ it⟩]

However, Merchant (2013) has shown that sluicing differs in this regard, where voice mismatches in either direction are ruled out (3).

(3)   *No voice mismatch under sluicing* (Merchant 2013:81):

    a. *Joe was murdered$_{\text{PASS}}$, but we don't know who [$_{\text{TP}}$ ⟨murdered$_{\text{ACT}}$ Joe⟩]

    b. *Someone murdered$_{\text{ACT}}$ Joe, but we don't know by whom [$_{\text{TP}}$ ⟨Joe was murdered$_{\text{PASS}}$⟩]

This mismatch is not predicted by the standard semantic approaches to such as *e-GIVENness* (4).
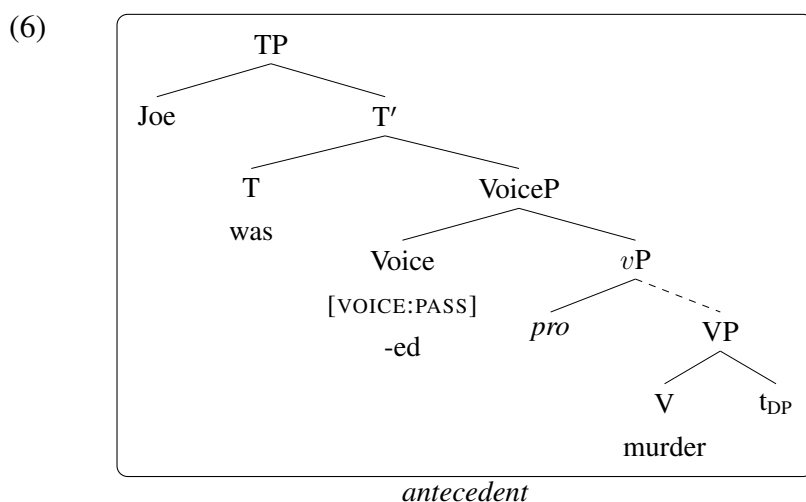
(4)   *e-GIVENness* (Merchant 2001:26):

An expression E counts as e-GIVEN iff E has a salient antecedent A and, modulo ∃-type shifting,

    (i) A entails F-clo(E), and

    (ii) E entails F-clo(A)

This requires that the respective denotations of the antecedent and ellipsis site (after existential closure) are mutually entailing. Assuming that the implicit agent of a passive is represented semantically (e.g. Bruening 2013), then *e-GIVENness* is incorrectly predicted to be satisfied for examples such as (3a):
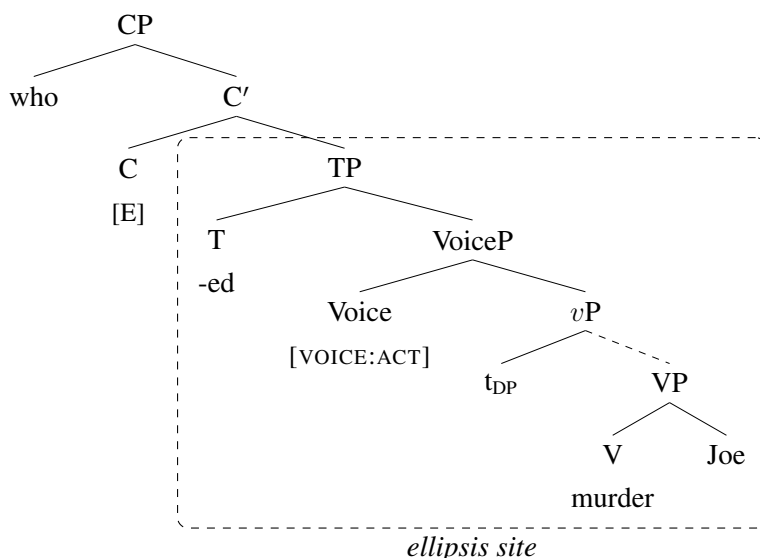
(5)   *Overgeneration of e-GIVENness*:

Joe was murdered but we don't know who ⟨murdered Joe⟩

($\exists x.x$ murdered Joe ↔ $\exists x.x$ murdered Joe)

As a result, Merchant (2013) proposes a solution based on syntactic identity. In short, he assumes that there cannot be a featural mismatch between the antecedent and the ellipsis site.

In the case of sluicing, the antecedent and ellipsis site are both TPs and thus necessarily contain the mismatching feature on Voice, i.e. [VOICE:PASS] vs [VOICE:ACT] in (6). Consequently, the syntactic identity is not met.
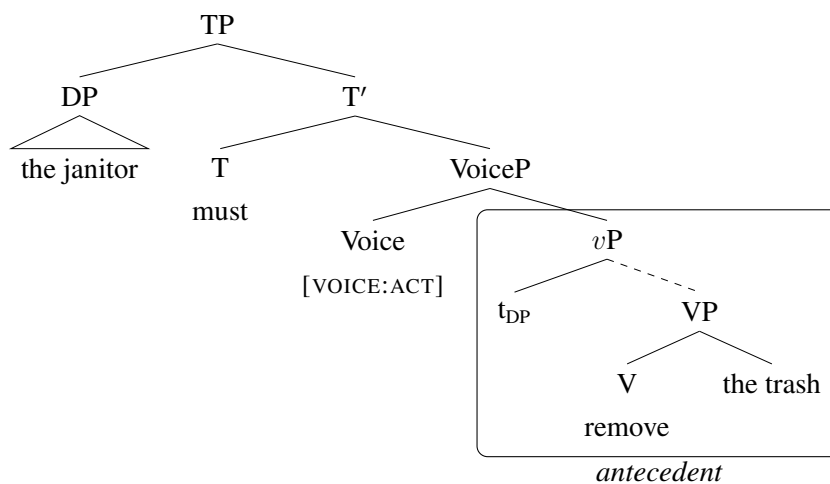
(6)

antecedent

    *but we don't know...

```
                      CP
              ┌────────┴────────┐
             who               C′
                         ┌──────┴──────┐
                         C            TP
                        [E]      ┌─────┴─────┐
                                 T         VoiceP
                                -ed    ┌─────┴─────┐
                                     Voice         vP
                                  [VOICE:ACT]  ┌────┴╌╌╌┐
                                              t_DP      VP
                                                     ┌───┴───┐
                                                     V       Joe
                                                   murder
```
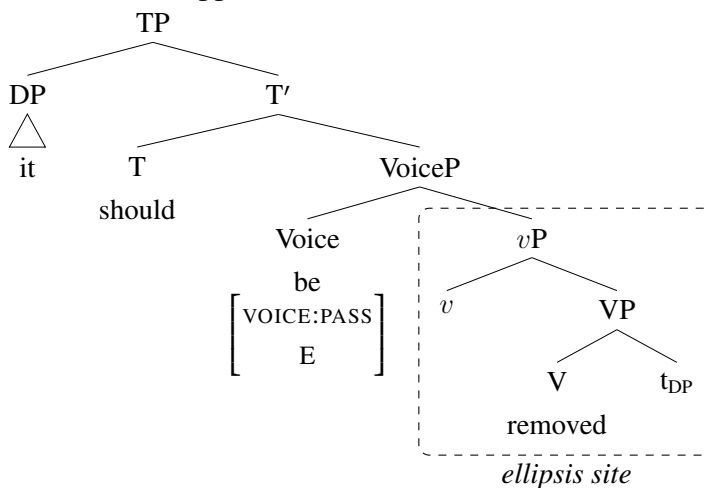
ellipsis site

The important assumption about why VP ellipsis differs from sluicing regarding voice mismatches is that it targets a projection smaller than VoiceP, namely vP. As a result, the mismatching feature values on Voice are not included in the ellipsis site and thus can be ignored for the purposes of satisfying syntactic identity (7).

(7)

```
                        TP
              ┌──────────┴──────────┐
             DP                     T′
          ┌───┴───┐         ┌───────┴───────┐
       the janitor          T             VoiceP
                          must       ┌───────┴───────┐
                                   Voice             vP
                                [VOICE:ACT]     ┌─────┴╌╌╌┐
                                              t_DP        VP
                                                       ┌───┴───┐
                                                       V    the trash
                                                     remove
```

antecedent

whenever it is apparent that...

```
                    TP
           ┌─────────┴─────────┐
          DP                   T′
          △            ┌───────┴───────┐
          it           T             VoiceP
                    should       ┌──────┴──────┐
                               Voice           vP
                                be        ┌─────┴──────┐
                            ⎡VOICE:PASS⎤   v          VP
                            ⎣    E     ⎦          ┌────┴────┐
                                                  V        t_DP
                                               removed
```

ellipsis site

3

The upshot if this analysis is that voice mismatches are predicated to only be possible with 'small' ellipsis sites that do not contain Voice.[1]

Crucially, this analysis assumes the impossibility of active/passive mismatches to follow from a featural mismatch on Voice and not, for example, from the demotion of the external argument. Thus, we might expect that a language that had a passive-like construction, but with active syntax, would allow for mismatches even under sluicing, since the features on Voice would match. Indeed, some languages have been reported to have such a construction, namely the *active impersonal* construction. In what follows, I will show that, contrary to this expectation, active impersonals do not permit mismatches under sluicing despite having active syntax.

2 Active impersonals

Some languages have been shown to have so-called *active impersonal* constructions which resemble passives in having a unrealized external argument. The three languages I will focus on in this paper are Polish, Irish and Estonian (also see e.g. Sason Arabic; Akkuş 2021, Icelandic; Maling & Sigurjónsdóttir 2002; Sigurðsson 2017, Pazar Laz; Öztürk & Erguvalnı Taylan 2017, Lithuanian; Blevins 2003, Turkish; Legate et al. 2020, Breton; Legate 2014).

In Polish, impersonal forms are realized with the *-n/-t* suffix and neuter agreement on the verb, as shown in (8).

(8)   *Active impersonals in Polish* (Lavine 2005:76; Ruda 2014:204):

    a. Znalezi-on-o   niemwolę w koszu
         found-IMPERS-N.SG baby.ACC in basket
         'They found a baby in a basket.'

    b. Przy-nosz-on-o   pacjent-om   kwiat-y
         PFX-bring.IMPF-IMPERS-N.SG patients-DAT.PL flowers-ACC.PL
         'They brought flowers to the patients.'

Despite resembling passives in missing an overt external argument, Maling & Sigurjónsdóttir (2002) and Lavine (2005) have argued that these are active constructions, unlike their Ukrainian counterparts (see section 2.2). Furthermore, Polish has a morphologically distinct passive construction in addition to impersonals (e.g. Maling & Sigurjónsdóttir 2002).

Irish impersonals are formed with what is sometimes called the *autonomous* form (Nerbonne 1982; Stenson 1989; McCloskey 2007). I adopt this convention in glossing this form as AUT. As the examples in (9) show, these constructions lack an overt external argument and have been argued to be active voice constructions with a silent impersonal subject.

(9)   *Active impersonals in Irish* (McCloskey 2007:826):

    a. Scaoil-eadh   amach na líonta
         release-PST.AUT out   the nets
         'The nets were let out.'

---

[1]A similar logic applies to Merchant's (2008) account of the asymmetry between VP ellipsis and pseudogapping regarding voice mismatches (however, see Tanaka 2011*a*; Nakamura 2013; Poppels & Kehler 2019).

    b. Cuir-tear   i mboscaí iad
         put-PRES.AUT in boxes   them
         'They are put in boxes.'

    c. Tóg-adh   suas an corpán ar bharr na haille
         raise-PST.AUT up   the body   on top   the cliff.GEN
         'The body was lifted to the top of the cliff.'

Finally, Estonian also has active impersonals. They are formed with the suffix *-takse* in present tense (10a) and *-ti* in past tense (10b).

(10)   *Active impersonals in Estonian* (Blevins 2003:485; Kaiser & Vihman 2006:114):

    a. Siin ehita-takse   uut   maja
         here build-IMPERS.PRES new.PART house.PART
         'They are building a new house here.'

    b. Kütusevargad   võe-ti   kinni
         fuel.burglar.NOM.PL take-IMPERS.PST closed
         'The gas thieves were arrested.'

Unlike the other examples, the internal argument in Estonian impersonals shows nominative or partitive rather than accusative case. However, this is independent of argument structure and instead linked to telicity (Kaiser & Vihman 2006:114). Nevertheless, we can show that impersonals are syntactically distinct from passives, since the latter involve an auxiliary verb, as well as participial morphology on the verb (11b).

(11)   *Impersonal is distinct from passive in Estonian* (Lindström 2015:144):

    a. See raamat   loe-ti   suure huvi-ga   läbi
         this book.NOM read-IMP.PST big.GEN interest-COM through
         'People read this (whole) book with great interest'

    b. Raamat   ol-i   läbi   loe-tud
         book.NOM be-3SG.PST through read-PART
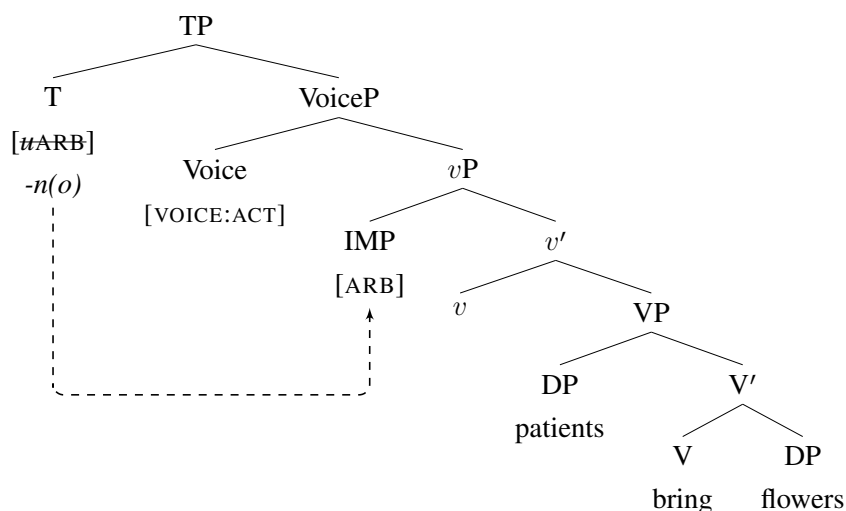   'The book was read (all the way through).'

2.1   The structure of impersonals

Active impersonals have been argued to differ from passives in being active constructions (e.g. Maling & Sigurjónsdóttir 2002; Blevins 2003; Legate 2014; Legate et al. 2020). Thus, the *v*P is transitive and contains a fully-projected external argument that I will represent as the silent impersonal pronoun IMP (12).

(12)

```
              VoiceP
            /        \
        Voice         vP
     [VOICE:ACT]    /    \
                 IMP      v′
                        /    \
                      v        VP
                   [CASE]     /  \
                             V    DP
```
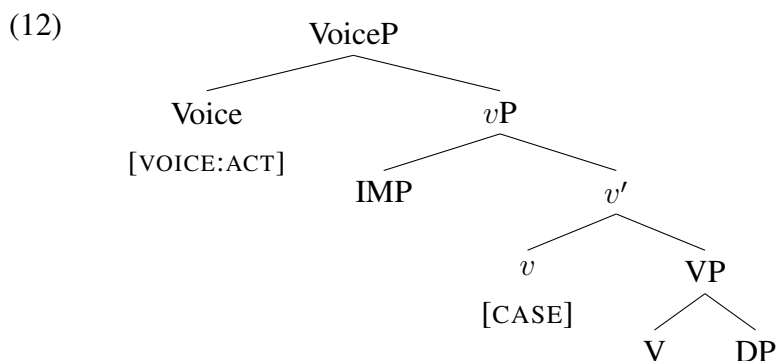
The impersonal morphology that we see in all three of the languages discussed above can be assumed to be the result of agreement with the impersonal subject. Following the proposal inMc-Closkey (2007), the Polish example in (8b) would be analyzed as in (13), where T agrees with the impersonal subject to check a feature such as [ARB].

(13)   Przy-nosz-on-o   pacjent-om   kwiat-y
        PFX-bring.IMPF-IMPERS-N.SG patients-DAT.PL flowers-ACC.PL
        'They brought flowers to the patients.'

```
                  TP
                /    \
              T       VoiceP
          [uARB]     /      \
           -n(o)   Voice      vP
               [VOICE:ACT]   /   \
                          IMP      v′
                         [ARB]    /  \
                                v     VP
                                    /    \
                                  DP      V′
                               patients  /  \
                                        V    DP
                                     bring  flowers
```

The necessity of this licensing relation will restrict the impersonal pronoun to only occurring in contexts with this particular T head bearing impersonal morphology.

2.2 Diagnostics for active structure

In this section, I will briefly review some of the evidence that these constructions do indeed involve active transitive syntax, unlike passive voice constructions.

2.2.1 Case-marking on the object

One of the clearest indications that these constructions are active comes from the fact that that the internal argument shows accusative/objective case-marking. Typically, passive constructions involve the loss of accusative case. In Irish impersonals (14b), for example, the object shows the same case-marking as in the active transitive in (14a).

6

(14)   *Case marking in Irish impersonal* (Stenson 1989:384):

    a. Bhuail siad aríst **iad**
        beat   they again them
        'They beat them again.'

    b. Buail-eadh aríst **iad/*siad**
        beat-AUT   again them/*they
        'They were beaten again.'

The same can also be seen in Polish, where the internal argument in an impersonal bears accusative (15a), unlike in the corresponding passive construction (15b).

(15)   *Case marking in Polish impersonal* (Maling & Sigurjónsdóttir 2002:102):

    a. **Świątyni-ę** zbudowa-n-o   w 1640 roku
        church-ACC build-IMPERS-N.SG in 1640 year
        'The church was built in 1640.'

    b. **Świątyni-a** była zbudowa-n-a   w 1640 roku
        church-NOM was build-PRT-F.SG in 1640 year
        'The church was built in 1640.'

As was shown in (11), case-marking in Estonian is linked to telicity and does therefore not show this distinction.

2.2.2   Unaccusative verbs

Another major difference between active impersonals and passives is that impersonals are compatible with unaccusative verbs, whereas passives are not (e.g. Perlmutter 1978; Baker et al. 1989). Relevant examples of impersonals of unaccusatives are given below.[2]

(16)   *Unaccusative verbs in Polish impersonal* (Śpiewak & Szymańska 1997:150):

    Umiera-n-o   tam tysiącami   na tyfus
    died.IMPERS-N.SG there thousands.INST on typhus
    'People died there in thousands from typhus.'

(17)   *Unaccusative verbs in Irish impersonal* (Stenson 1989:387):

    Báth-adh   naonúr iascairí
    sink-AUT.PST nine   fishermen
    'Nine fishermen drowned.'

(18)   *Unaccusative verbs in Estonian impersonal* (Blevins 2003:484):

    Tull-akse   ja minn-akse
    come-IMPERS.PRES and go.IMPERS.PRES
    'People come and go.'

---

[2]Note that this could be analyzed as the impersonal pronoun being merged as the complement of the unaccusative verb:

(i) $[_{vP} \, v \, [_{VP} \text{ V IMP }]]$

2.2.3 *by*-phrases

Unlike passives, impersonals are typically not compatible with *by*-phrases. In Polish, for example, while passives can take *by*-phrases (19a), impersonals cannot (19b).

(19)   *No* by-*phrase in Polish impersonal* (Blevins 2003:491):

    a. Gazet-a   była   czytan-a   [PP przez dzieci   ]
         newspaper-NOM.FEM.SG be.FEM.SG read-FEM.SG   by   children
         'The paper was read by children.'

    b. *Gazet-ę   czyta-n-o   [PP przez dzieci   ]
         newspaper-ACC.FEM read-IMPERS-N.SG   by   children
         'One read the paper by children.'

Similarly, Irish impersonals do not allow for *by*-phrases (20).

(20)   *No* by-*phrase in Irish impersonals* (Stenson 1989:381):

     *Buail-eadh   Ciarraí [PP ag/le Gaillimh]
     beat-AUT.PST Kerry   by   Galway
     'Kerry was beaten by Galway.'

Following Bruening (2013), the *by*-phrase is assumed to saturate the argument position. This incompatibility is expected if the silent pronoun in impersonals requires the external argument role.

     In Estonian, *by*-phrases are possible with some types of DPs. However, these are restricted to certain types of 'committee' nouns. So, while they can occur with *vallavolikogu* ('county council'), they claimed to be unacceptable with pronouns (21).

(21)   by-*phrases in Estonian are restricted* (Kaiser & Vihman 2006:132):

     Komisjon   kinnita-takse   [PP vallavolikogu   / *meie   poolt]
     commission.NOM confirm-IMPERS.PRES   county.council.GEN *we.GEN by
     'The commission is confirmed by the county council/*by us.'

The consensus seems to be that this an 'intrusive' use of the *by*-phrase (Blevins 2003:485f.; Kaiser & Vihman 2006:133; also see Fox & Grodzinsky 1998 on *get*-passives in English).

2.2.4 Binding of reflexives and reciprocals

Another piece of evidence for the syntactic presence of the external argument (IMP) in impersonals can be seen by its ability to license reflexives and reciprocals:

(22)   *Reflexive anaphors possible in Estonian impersonals* (Kaiser & Vihman 2006:122):

     Kord päevas IMP$_i$ pes-ti   **end**$_i$ üleni külma   veega
     once day.INE   wash-IMPERS.PST REFL.PART overall cold.GEN water.COM
     'Once a day, one washed oneself in cold water.'

(23)   *Reflexive anaphors possible in Polish impersonals* (Ruda 2014:211):

     Przez   kilka godzin przedstawia-n-o   IMP$_i$ **swoje**$_i$ racje
     through several hours   present-IMPERS-N.SG   REFL arguments.ACC

'They have presented their arguments for a couple of hours.'

(24)　*Reciprocals possible in Irish impersonals* (McCloskey 2007:830):

Chuirtí　　　IMP$_i$ geall len- **a chéile**$_i$
put.AUT.PST　　　bet　with each.other
'People used to place bets with each other.'

Assuming that these anaphors require a local c-commanding antecedent, this motivates the assumption of a silent impersonal pronoun.

2.2.5　Control

Finally, the null subject of impersonals can also control PRO. This is shown for control into infinitival clauses in Irish (25) and Estonian (26).

(25)　*Impersonal subject can control in Irish* (Stenson 1989:391):

Táth-ar　　　IMP$_i$ ag iarraidh [PRO$_i$ airgead a　　bhailiú]
be-AUT.PRES　　　trying　　　　money　PRT collect
'They are trying to collect money.'

(26)　*Impersonal subject can control in Estonian* (Kaiser & Vihman 2006:131):

IMP$_i$ Luba-ti　　　[PRO$_i$ ära　minna]
　　promise-IMPERS　　　away　go
'They promised to leave.'

This can also be seen with control of the subject of a secondary predicate. As the contrast in (27) shows, control into secondary predicates in Polish is not possible with implicit argument of a passive (27a), but it is with the null subject of an impersonal (27b).

(27)　*Impersonal subject can control in Polish* (Maling & Sigurjónsdóttir 2002:103f.)

　　a.　Jan$_i$　　　był obrabowany [PRO$_{i/*j}$ po　　pijanemu]
　　　　Jan.NOM was robbed.PASS　　　while drunk
　　　　'Jan$_i$ was robbed drunk$_{i/*j}$

　　b.　Jan-a$_i$　　obrabowano　IMP$_j$ [PRO$_{j/*i}$ po　　pijanemu]
　　　　Jan-ACC robbed.IMPERS　　　while drunk
　　　　'Jan$_i$ was robbed drunk$_{j/*i}$.'

2.3　Interim summary

So far, we have seen that languages such as Polish, Irish and Estonian have active impersonal constructions, which resemble passives. However, these are not passive constructions (in fact they often exist alongside passives in a given language), but instead are active transitive constructions with a fully projected external argument according to many relevant diagnostics.

In section 1, we saw that voice mismatches under sluicing are ruled out due to a mismatching feature on Voice in the active/passive antecedent. Thus, a clear prediction of this theory is that mismatches should not be found with active impersonals and active transitives, since the specifica-

tions on Voice should match. In the following section, we will see that this prediction is not borne out, however.

3 Sluicing with active impersonals

This section presents novel data involving sluicing with active impersonal antecedents for the languages we have been discussing so far.

3.1 Polish

First, let us consider Polish. Like English, Polish allows for sluicing with wh-subjects (28).

(28)   *Sluicing in Polish* (Nykiel 2019:962):

Ktoś   chce   kibicować Niemcom w niedzielę, ale nie wiem
somebody.NOM want.3SG root.for.INF Germany   on Sunday   but not know.1SG
kto   [$_{TP}$ △]
who.NOM
'Somebody wants to root for Germany on Sunday, but I don't know who.'

However, active sluices are not licensed by an active impersonal antecedent:

(29)   *No sluicing with active impersonals in Polish* (Joanna Zaleska, p.c.):

a. *Wczoraj   przy-niesi-on-o   pacjentom kwiaty, ale nie   wiemy
   yesterday PFX-bring.PERF-IMPERS-N.SG patients   flowers but NEG know.1PL
   kto   [$_{TP}$ △]
   who.NOM
   'They brought flowers to the patients yesterday, but we don't know who.'

b. *Gazet-ę   czyta-n-o,   ale nie wiem   kto   [$_{TP}$ △]
   newspaper-ACC read.IMPF-IMPERS-N.SG but NEG know.1SG who.NOM
   'They read the newspaper, but I don't know who.'

3.2 Irish

Irish has also been shown to have sluicing constructions (30).

(30)   *Sluicing in Irish* (Merchant 2001:131):

Tá   duine inteacht breoite, ach níl   fhios   agam cé [$_{TP}$ △]
be.PRES person some   ill   but not.is knowledge at.me who
'Somebody is ill, but I don't know who.'

However, like Polish, it seems that active sluices cannot be anteceded by active impersonals:

(31)   *No sluicing with active impersonals in Irish* (Jim McCloskey, p.c.):

a. *Scaoil-eadh   amach na líonta, ach níl   fhios   agam cé [$_{TP}$ △]
   release-PST.AUT out   the nets   but not.is knowledge at.me who
   'The nets were let out, but I don't know who ⟨let the nets out⟩.'

b. *Cuir-tear   i mboscaí iad, ach níl   fhios   agam cé [$_{TP}$ △]
    put-PRES.AUT in boxes   them but not.is knowledge at.me who
    'They are put in boxes, but I don't know who ⟨put them in boxes⟩.'

3.3 Estonian

Finally, let us consider Estonian. To the best of my knowledge, sluicing in Estonian had not been previously reported, however it seems to be possible, as shown by the following attested example in (32).

(32)   *Sluicing in Estonian*:

Kardan   midagi   veel, aga ma ei   tea   mida [$_{TP}$ △]
be.afraid.1SG something else but I   NEG know what
'I am afraid of something else, but I don't know what.'[3]

Again, despite the antecedent being fully active, an impersonal antecedent cannot license an active sluice (33).

(33)   *No sluicing with active impersonals in Estonian* (Marju Kaps, p.c.):

a. *Siin ehita-takse   uut   maja,   aga ma ei   tea   kes [$_{TP}$ △]
    here build-IMPERS.PRES new.PART house.PART but I   NEG know who
    'They are building a new house here, but I don't know who (is building a new house here).'

b. *Õues kakel-di,   aga me ei   tea   kes [$_{TP}$ △]
    outside fight-IMPERS.PST but I   NEG know who
    'People were fighting outside, but I don't know who (was fighting outside).'

4 Towards an analysis

Thus, it seems that active impersonals are unable to function as antecedents for active sluices in either Polish, Irish or Estonian. On the face of it, this seems to constitute a challenge to Merchant's (2013) analysis of voice mismatches.

There are two possible alternative explanations, however, that I will explore in the remainder of this paper. The first is semantic, namely that the impersonal subject does not, in some relevant sense, fulfil the licensing/identity conditions required for sluicing. The other approach (that I will refer to as the 'syntactic explanation') is that Merchant's (2013) is still essentially correct and the source of the feature mismatch is located outside Voice.

4.1 Semantic explanations

As we saw in (5), Merchant's (2001) *e-GIVENness* identity condition overgenerates with voice mismatches. A possible explanation for why impersonals still cannot license sluices could be that

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[3]Online attested example: https://www.ohtuleht.ee/826529/prooviabielu-helen-selgitab-sotsiaalse-arevuse-tagamaid-on-paevi-kus-ma-julgen-olla-mina-ise-aga-on-paevi-kus-ma-ei-suuda-toast-valja-minna-   <accessed 10.03.19>

the relevant conditions on both semantic identity (*eGIVENness*) and syntactic identity (feature matching) must be met. Generally, we know that impersonals can receive either an existential or a generic interpretation (e.g. Blevins 2003). Thus, in an example such as (34), the generic interpretation would not satisfy e-GIVENness assuming that it involves some kind of generic quantification.

(34) *Tull-akse   ja minn-akse,   aga ma ei   tea   kes [$_{TP}$ $\triangle$]
      come-IMPERS.PRES and go.IMPERS.PRES but I   NEG know who
      'People come and go, but I don't know who (comes and goes).'

Given the denotations in (35) (e.g. Krifka et al. 1995), the meaning of the antecedent containing a generic operator would not be entailed by the meaning of ellipsis site. In other words, there being an individual that comes and goes does not seem to entail that this is a generic occurrence.

(35) $\text{GEN}_x \, [x \text{ comes and goes}] \nRightarrow \exists x \, [x \text{ comes and goes}]$

However, this makes the prediction that an existential interpretation of IMP should, all else being equal, still license a sluice. However, many of the examples discussed in section 3 clearly have an existential interpretation disambiguated by an adverb, yet still do not license sluicing.

An alternative could be to assume that there is some more general condition that requires matching between the remnant of sluicing (the wh-phrase) and its antecedent (typically an indefinite) (Dayal & Schwarzschild 2010; Kroll & Rudin 2017). On this view, it could be that the problem is not semantic, but that the impersonal subject is the wrong kind of correlate. This could be due to a feature mismatch, for example. How do we know which features IMP has? In Polish, it can be shown that it has masculine plural features due to agreement on predicate adjectives (36a) and nominals (36b).

(36) *Impersonal agent has* MASC.PL *features* (Legate 2014:98; Ruda 2014:214):

      IMP wygląda-n-o   na szczęśliwych
          looked-IMPERS-N.SG on happy.ACC.M.PL
      'They looked happy.'

   a. Nazywa-n-o   siebie geniusz-ami
      call-IMPERS-N.SG SELF genius-INSTR.M.PL
      'They called themselves geniuses.'

We can be sure that this is agreement with the null subject since default agreement (e.g. with arbitrary PRO) shows default singular agreement. With this in place, we could imagine that the features of the correlate somehow do not suffice to license the remnant *kto* ('who') in examples such as (29). However, it can be shown that an unambiguously masculine plural correlate can indeed license the sluiced remnant *kto*:

(37) Niektórz-y pracownic-y   dostali już   wypłatę, ale nie wiem   dokładnie
      some-M.PL employee-M.PL got   already payment but NEG know.1SG exactly
      kto   [$_{TP}$ $\triangle$]
      who.NOM.M.PL
      'Some employees were already paid, but I don't know who.'

Thus, it does not seem that the source of the mismatch can be straightforwardly attributed to antecedent-correlate harmony either.

4.2 A syntactic solution

Instead, I would like to propose a syntactic solution to this problem, building on an observation that, even when voice matches, there can be an additional syntactic identity violation that renders a particular kind of ellipsis unlicensed.

4.2.1 Causative/inchoative mismatches

Alongside voice mismatches, Merchant (2013) also discusses the impossibility of argument structure mismatches under ellipsis. For example, transitivity alternations are not tolerated under VP ellipsis (38).

(38) *No causative/inchoative mismatches under VP ellipsis* (Sag 1976:160; Johnson 2004:7):

    a. A: This can freeze$_{\text{INTR}}$.

         B: *Please do ⟨freeze$_{\text{TR}}$ this⟩!

    b. *Bill melted$_{\text{TR}}$ the copper vase, and the magnesium did ⟨melt$_{\text{INTR}}$⟩ too.

Importantly, these are still both active voice constructions, so a voice mismatch cannot be the root of ungrammaticality here. Merchant's proposal for the impossibility of (38) still appeals to syntactic identity, but places the locus of the mismatch on differing transitivity specifications of v (39). Similar to voice mismatches, the types of v in the antecedent and ellipsis site also subject to a syntactic identity requirement.

(39)
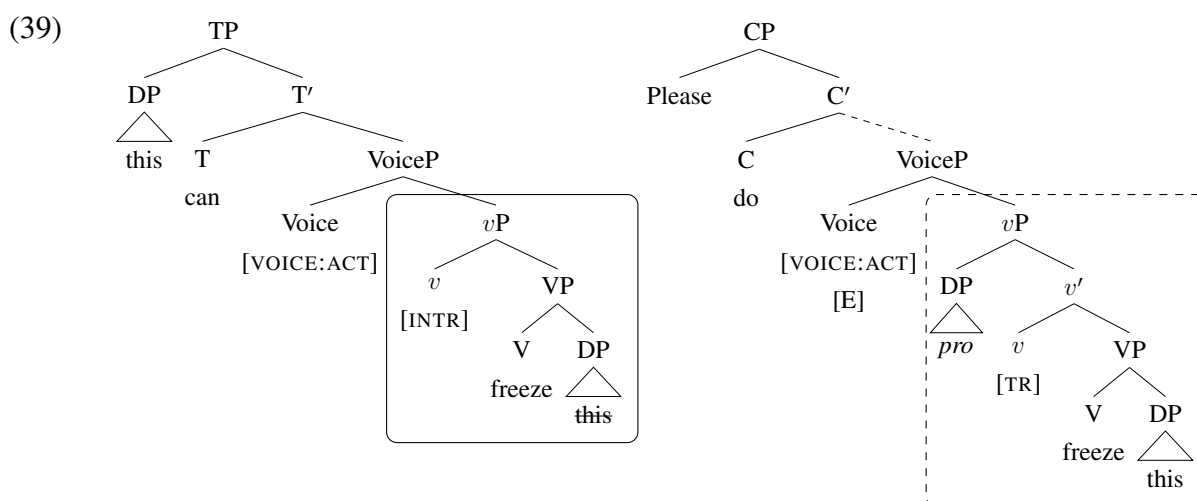
These cases involve VP ellipsis, which does not contain voice in the ellipsis site. However, Merchant (2013) also shows that this kind of mismatch is ruled out under sluicing as well. In the Greek examples in (40), the transitive variant of 'close' cannot license ellipsis of the intransitive alternant (40a), as can be identified by the case of the remnant.

(40)   *No causative/inchoative mismatches under sluicing in Greek* (Merchant 2013:97):

a. *Eklisan_TR   ena   ðromo,   alla ðen ksero   pjos   ⟨eklise_INTR⟩
   closed.3PL a.ACC road.ACC but not know.1SG which.NOM closed.3SG
   Int.'They closed a road, but I don't know which one (closed).'

b. Eklisan_TR   ena   ðromo,   alla ðen ksero   pjon   ⟨eklisan_TR⟩
   closed.3PL a.ACC road.ACC but not know.1SG which.ACC closed.3PL
   'They closed a road, but I don't know which one (they closed).'

As (41) shows, although the features on Voice match, the transitivity specification of v does not.
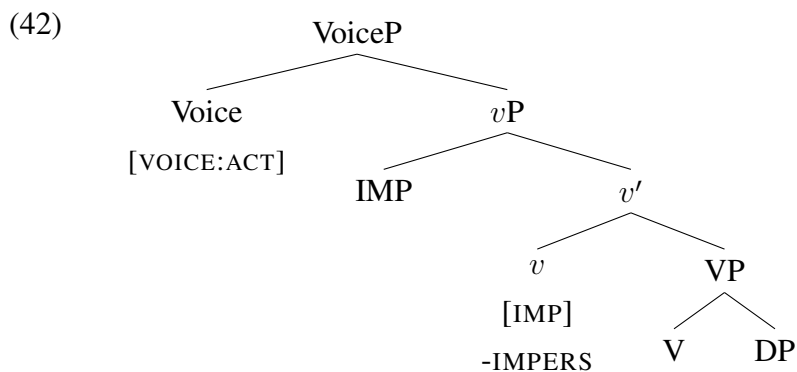
(41)

antecedent

ellipsis site
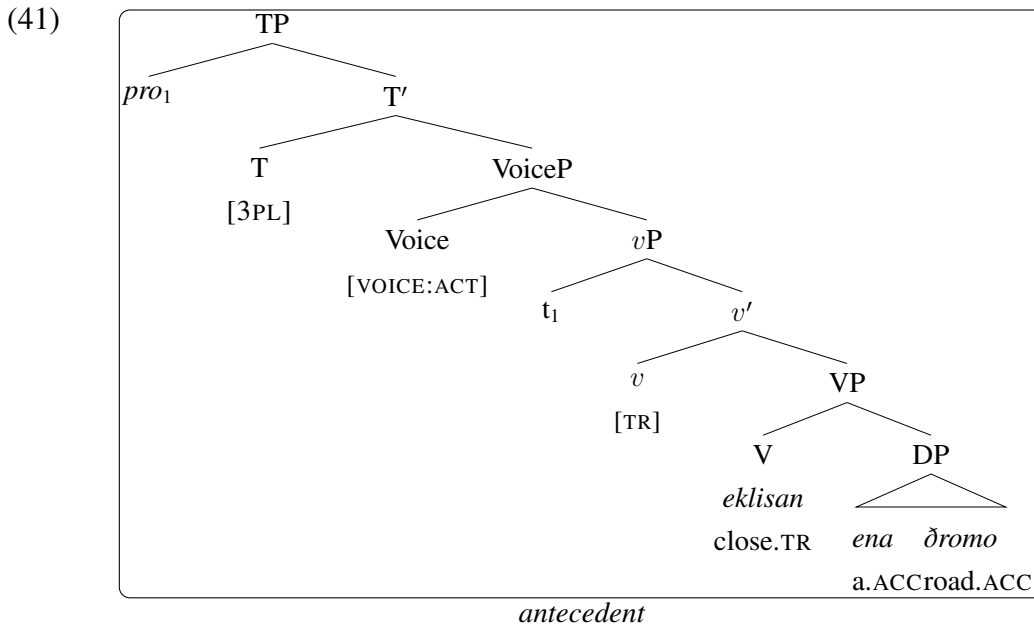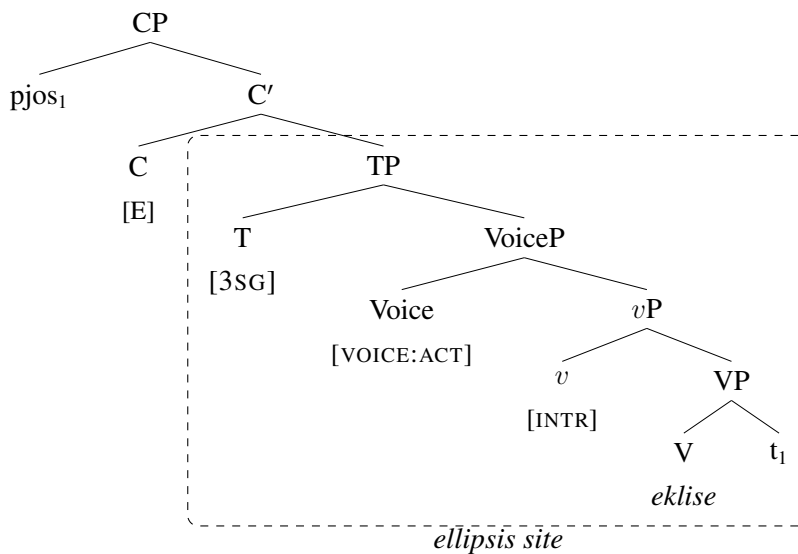
4.2.2   Syntactic mismatches in impersonals

I propose that we can adopt a similar approach for impersonals. In particular, let us assume that impersonals come with a dedicated v_{IMP} head that licenses the impersonal pronoun in its specifier
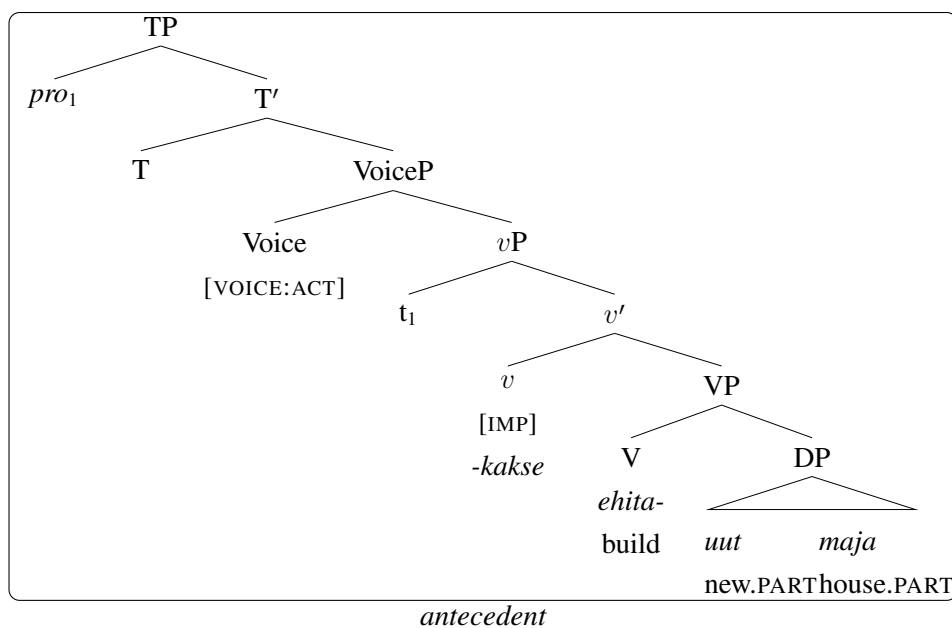
and also hosts impersonal morphology (42).

(42)

```
                        VoiceP
                 _____/    _____
              Voice                vP
          [VOICE:ACT]         ___/   \___
                            IMP          v′
                                    ___/   \___
                                   v           VP
                                 [IMP]        /  \
                               -IMPERS       V    DP
```
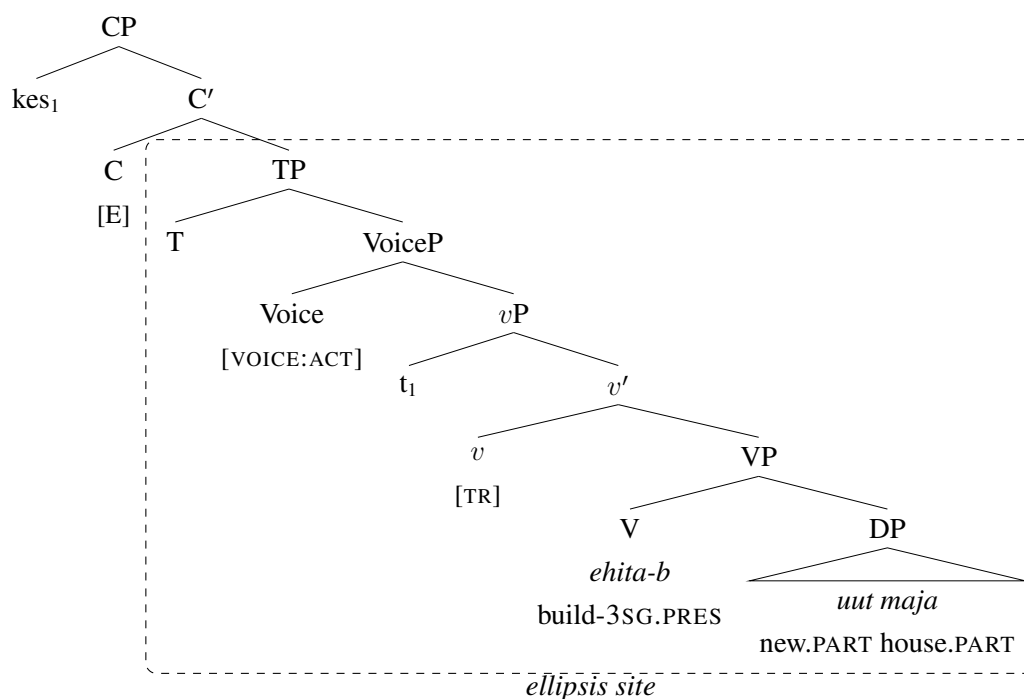
For the all of examples in section 3, this will mean that, although the voice specifications match, there will still be a mismatch in terms of v, analogous to causative/inchoative mismatches. To see this, consider again the Estonian in (43).

(43) *Siin ehita-**takse**   uut   maja,   aga ma ei   tea   kes [$_{TP}$ △]
       here build-**IMPERS.PRES** new.PART house.PART but I   NEG know who
       'They are building a new house here, but I don't know who.'

As can be seen in (44), the Voice specifications match, but the v as distinct, leading to a violation of syntactic identity.

```
                   TP
            _____/  _____
         pro₁               T′
                      ____/    \____
                     T              VoiceP
                              _____/    \_____
                           Voice              vP
                        [VOICE:ACT]      ___/   \___
                                        t₁          v′
                                               ___/   \___
                                              v           VP
                                            [IMP]        /  \
                                           -kakse       V    DP
                                                      ehita-  /\
                                                      build  uut   maja
                                                           new.PART house.PART
```
antecedent

       *aga ma ei   tea...
       but I   NEG know

ellipsis site

On this approach, the ungrammaticality of such examples is predicted, despite the Voice mismatch, just like with other illicit argument structure alternations that affect v. This allows us to maintain Merchant's (2013) analysis of voice mismatches, in spite of the apparent counterexample of active impersonals.

4.3 A final puzzle: Indirect causatives

Although this analysis works well for the cases at hand, there is still a final unsolved puzzle that I will briefly discuss. Recent work has argued that the null external argument of indirect causatives should also be analyzed as an active impersonal (Folli & Harley 2007; Legate 2014; Akkuş 2021; Sigurðsson & Wood to appear). The abstract structure of an indirect causative on this analysis would be as in (44).

(44) [$_{VP}$ make/let [$_{VoiceP}$ Voice$_{[ACT]}$ [$_{vP}$ IMP [$_{v'}$ v [$_{VP}$ V DP]]]]]

What is striking, however, is that in both of these languages the implicit argument of an indirect causative seems to be able to license an active sluice. This holds for both Sason Arabic (45) and Icelandic (46).

(45) *Sason Arabic causative licenses active sluice* (Akkuş 2021):

Mafya sa   [$_{vP}$ IMP$_i$ qadəl   mara-du] hama m-ore   ande$_i$
mafia made   murder wife-his but NEG-know.1SG who
'The mafioso made (someone) murder his wife, but I don't know who.'

(46) *Icelandic indirect causative* (Sigurðsson & Wood to appear):

%Kóngurinn   lét [$_{vP}$ IMP$_i$ myrða konuna   sína   ] en ég veit ekki hvern$_i$
the.king.NOM let   murder wife.the.ACC his.REFL   but I know not who.ACC
'The king made (someone) murder his wife, but I don't know who.'

16

Given the analysis developed in the previous section, it is surprising that impersonals in this context license sluices. Why should the syntax of impersonals here differ so radically? While the answer is unclear at present, it seems that this impersonal subject in these constructions differs from what we have seen so far. For example, in both Icelandic (47a) and Sason Arabic (47b), the impersonal subject cannot license a reflexive.

(47)   *Causee cannot bind a reflexive*:

    a.   Hún$_i$ lét [$_{vP}$ IMP$_j$ raka   sig$_{i/*j}$]
        she   let   shave REFL.ACC
        'She$_i$ made (someone$_j$) shave her$_i$/*himself$_j$'

    b.   Aɣa$_i$ sa   [$_{vP}$ IMP$_j$ qadıl rou$_{i/*j}$]
        landlord made   kill   himself
        'The landlord$_i$ made (someone$_j$) kill himself$_{i/*j}$'

Furthermore, the impersonal subject in Icelandic cannot control PRO (48).

(48)   *Causee cannot control* (Sigurðsson & Wood to appear):

    *Hann lét IMP$_j$ lofa   eim að PRO$_j$ vaska upp snemma
    he   let   promise them to   wash up early
    'He made (someone$_j$) promise them PRO$_j$ to wash up'

Note that this means that the null impersonal seems to differ crucially in its anaphoric potential, suggesting these constructions are not straightforwardly the same as active impersonals in Polish, Irish and Estonian.

5 Conclusion

In this paper, I discussed a potential challenge for Merchant's (2013) analysis of the asymmetry in voice mismatches between VP ellipsis and sluicing. Active/passive alternations under sluicing are assumed to be illicit due to a feature-mismatch on Voice. The prediction of this analysis that we focused on here is that active impersonals, which resemble passives in that the external argument is unrealized, should in fact be possible under sluicing. Data from Polish, Irish and Estonian refuted this prediction, however. It was argued that this finding can still be made compatible with Merchant's (2013) analysis by assuming that, while Voice matches, impersonals involve a different kind of v, just like in transitivity alternations. In both of these cases, a mismatching v leads to a violation of syntactic identity.

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