Case Alternations in the Icelandic Passive

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1 Introduction

The main question to be addressed in this paper is, why does accusative case systematically 'go away' in the passive alternation in (1), while dative case 'remains,' equally systematically, in (2)?

(1)   a.   Stormurinn   blés strompinn   af húsinu.
          the.storm.NOM *blew the.chimney*.ACC *off the.house*
          'The storm blew the chimney off the house'
      b.   Strompurinn   var blásinn af húsinu.
          the.chimney.NOM *was blown   off the.house*
          'The chimney was blown off the house'

(2)   a.   Skipstjórinn   sökkti skipinu.
          the.captain.NOM *sank   the.ship*.DAT
          'The captain sank the ship'
      b.   Skipinu   var sökkt af skipstjóranum.
          the.ship.DAT *was sunk by the.captain*
          'The ship was sunk by the captain'

The question is particularly pertinent in Icelandic, which allows accusative subjects, so that for example (1b) and (3) form a minimal pair.

(3)   Strompinn   blés af húsinu.
      the.chimney.ACC *blew off the.house*
      'The chimney blew off the house'

The possibility of (3) (and many other examples like it) means that the lack of accusative case in (1b) cannot be due to a general preference for assigning nominative case whenever possible (contra Marantz 1991, Haider 2000, Woolford 2003).

It is sometimes thought that the preservation of the dative in (2) is explained by an assumption that dative case is 'lexical' or 'inherent,' but the middle construction in Icelandic provides alternations between dative and nominative.

(4) a. Ég   týndi úrinu.
         I.NOM *lost* *the.watch*.DAT
         'I lost the watch'
     b. Úrið   týndist.
         the.watch.NOM *lost*.MIDDLE
         'The watch got lost'

This contrast between the middle and the passive is not straightforwardly explained by stipulating that the dative is 'inherent.'

In this paper, I argue that the contrasts outlined here follow from two independently motivated assumptions, cast in a decompositional model of lexical structure. The first assumption is that dative case is determined lower in the decomposed verbal structure than accusative case; this is motivated by the lexical semantics which determine the distribution of dative case. The second assumption is that the middle is lower in the structure than the passive, which is motivated by the fact that the passive, but not the middle, implies the existence of an external argument.

2   The Icelandic Passive

The passive construction that is the focus of this study is the periphrastic passive, illustrated in (5) and (6) (examples from Zaenen and Maling 1984 and Sigurðsson 1989, respectively).

(5) a. Höskuldur   sannfærði   hana.
         Höskuldur.NOM *convinced*.3SG *her*.ACC
         'Höskuldur convinced her'
     b. Hún   var   sannfærð   af Höskuldi.
         she.NOM *was*.3SG *convinced*.F.SG.NOM *by Höskuldur*.DAT
         'She was convinced by Höskuldur'

(6) a. Við   kusum   þá.
         we.NOM *elected*.1PL *them*.M.ACC
         'We elected them'
     b. þeir   voru   kosnir.
         they.M.NOM *were*.3PL *elected*.M.PL.NOM
         'They were elected'

Much of the discussion to follow is based on the detailed and careful exposition in Sigurðsson (1989).

The agreement pattern is the basic Indo-European one: the finite verb agrees in person and number with a nominative subject (if there is one), and if the auxiliary is 'be,' then the participle agrees in number and gender with the

subject. Participles under 'be' also vary for case, and case alternations can be seen if a passive verb is embedded under an ECM verb, as illustrated in (7) (as pointed out by Sigurðsson 1989; examples here from Svenonius 2001).

(7) a. það virðast hafa verið veiddir   nokkrir fiskar.
       it   seem   have been caught.M.PL.NOM *[some   fish(*M*)]*.PL.NOM
       'There seem to have been some fish caught.'
    b. Við töldum hafa verið veidda   nokkra fiska.
       we believe have been caught.M.PL.ACC *[some   fish(*M*)]*.PL.ACC
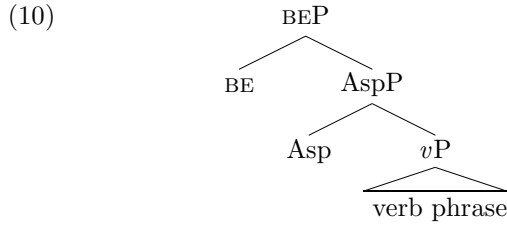   'We believe there to have been some fish caught.'

The participle, in its nominative singular neuter form, is the same form used in the perfect tense, as illustrated in (8), where *blaðið* 'newspaper' is neuter singular (and ambiguously nominative or accusative). Icelandic therefore cannot be said to be a distinct passive form, unlike Swedish (though the perfect uses the auxiliary *hafa* 'have').

(8) a. Ég hef   tekið blaðið.
       I   have taken the.newspaper
       'I have taken the newspaper'
    b. Blaðið   var tekið úr   póstkassanum.
       the.newspaper was taken from the.mailbox
       'The newspaper was taken from the mailbox'

However, on the basis of alternating examples like that in (9), we can assume that the neuter singular form in (8b) actually does agree with the neuter singular nominative noun *blaðið*, though silently; while the form in (8a) does not.

(9) a. Ég hef   tekið bókina.
       I   have taken the.book.ACC
       'I have taken the book'
    b. Bókin   var tekin.
       the.book.NOM *was taken*.F.SG.NOM
       'The book was taken'

This pattern is systematic, and in the examples below I generally don't gloss the agreement. The underlying syntactic representation for both may be assumed to be something like the following; if Asp combines with BE, then the combination is spelled out as 'have,' and the participle does not show agreement; if the verb combines with Asp, then 'have' cannot be spelled out, so BE spells out as 'be,' and the participle shows (adjectival) agreement (cf. Iatridou et al. 2001).

(10)

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              BEP
             /   \
           BE    AspP
                /    \
              Asp     vP
                     /  \
                  verb phrase
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This suggests that the node I have labeled Asp in the tree is a crucial component of the passive, as opposed to *v*, the highest head in the verb phrase. I motivate this contention further below.

The Icelandic passive is quite productive. It applies readily to verbs with objects of any case, as well as to verbs with PP complements or with no objects at all, as illustrated below (Sigurðsson 1989). Zaenen et al. (1985) establish that dative and genitive internal arguments in examples like (11) are derived subjects, and not simply topicalized. As already noted, unless the derived subject is nominative, no verbal form agrees with it.[1]

(11) a. Páll bauð   ykkur.
          Páll invited you.DAT
          'Páll invited you'
      b. Ykkur   var boðið.
          you.DAT *was invited*
          'You were invited'

(12) a. Ég talaði við Jón.
          I   spoke with Jón
          'I spoke with Jón'
      b. það var talað   við Jón.
          it   was spoken with Jón
          'John was spoken to'

(13) a. Páll söng (hátt).
          Páll sang loudly
          'Páll sang (loudly)'
      b. það var sungið hátt.
          it   was sung   loudly
          'There was loud singing,' 'People sang loudly'

As Sigurðsson (1989) notes, impersonal passives of intransitives, like that in (13), generally require additional information such as an adverbial or PP (this is indicated in (13) by making the adverbial optional in (13a) but not (13b); however, *það var sungið* may not be strictly speaking ungrammatical).

The impersonal passive is very productive. Icelandic even allows impersonal passives of verbs like 'come' and 'go' (ibid.), which cannot passivize in related languages like Norwegian.

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[1]With the exception, as noted above, that a participle will agree with an accusative ECM subject.

(14) a. Ég fór (snemma).
          I   left early
          'I left (early)'
      b. það var farið snemma.
          it   was left   early
          'People left early,' 'We left early'

(15) a. þeir komu (til mín).
          they came to me
          'They came (to (see) me)'
      b. það var komið til mín.
          it   was come to me
          'People came to (see) me'

However, not all verbs passivize in Icelandic. First of all, verbs with non-volitional external arguments do not passivize (Jónsson 2003).[2]

(16) a. *Ég var gladdur af þessari frétt.
          I   was pleased by this   news
      b. *Uppskerunni var bjargað af rigningunni.
          the.crop   was saved   by the.rain

In fact, actions which are not within the control of the external argument generally do not passivize, even if the external argument is animate; this includes the classic unaccusatives (apart from verbs like *koma* 'come' and *fara* 'leave' mentioned above, which when passivized do entail control of the subject over the activity).

(17) a. Margir menn dóu í   stríðinu.
          many   men died in the.war
          'Many men died in the war'
      b. *það var dáið í   stríðinu.
          it   was died in the.war

(18) a. Páll rann á   ísnum.
          Páll slid   on the.ice
          'Páll slid on the ice'
      b. *það var runnið á   ísnum.
          it   was slid   on the.ice

Verbs with non-nominative subjects quite generally do not passivize. As Jónsson (2003) argues, these verbs never have agentive subjects in any case.

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[2]In the case of *bjarga* 'save,' the passive is acceptable if the demoted agent is volitional (pointed out to me by Gunnar Hrafn Hrafnbjargarson):

(i) Manninum   var bjargað af hjálparsveitinni.
     *the.man.*DAT *was saved   by the.rescue.squad*
     'The man was saved by the rescue squad'

(19)   a.   Mér   leið vel.
             me.DAT *felt well*
             'I felt well'
       b.   *það var liðið vel.
             it   was felt   well

Many subject experiencer verbs fall into this category. However, even those subject experiencer verbs which have nominative subjects often do not passive; for example 'see' and 'hear' do not passivize easily, though 'love' and 'hate' do, at least with animate internal objects (Jónsson (2003)).

(20)   a.   María var elskuð af öllum.
             María was loved   by everyone
             'María was loved by everyone'
       b.   *Poppkorn er elskað af öllum.
             popcorn   is loved   by everyone

Thus, though the details remain to be worked out, the general pattern can be approximated by saying that all and only 'agentive' verbs passivize in Icelandic. Verbs which can optionally be agentive, such as 'sit' and 'come,' can passivize just in case they are used agentively.

The agent may be expressed in a 'by' phrases under certain circumstances; 'by' phrases were illustrated in a few of the examples above. They are generally acceptable with passives of transitive verbs, in which a DP is promoted to subject position, but not with impersonal passives (again as noted by Sigurðsson 1989).

There are a great many verb forms in *-st* in Icelandic, and some of them have passivelike interpretations.

(21)   a.   Jón bjargaðist úr   eldinum.
             Jón saved.ST   *out.of the.fire*
             'Jón got saved from the fire'
       b.   María kastaðist út   úr   bílnum.
             María throw.ST *out out.of the.car*
             'María got thrown from the car'
       c.   Bjórinn kláraðast.
             the.beer finished.ST
             'The beer got finished up'

However, I follow Sigurðsson (1989) in taking them to be significantly different from what I am calling the passive construction. For example, he shows that they do not allow 'by' phrases.[3]

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[3]Gunnar Hrafn Hrafnbjargarson has pointed out to me a couple of examples of *-st* verbs which allow *af*-phrases:

(i)   a.   Jesús sem fæddist   af Maríu mey
             Jesus as   borne.ST *by Maria virgin*
             'Jesus who was borne by the Virgin Mary'

(22)   a.   Lögreglan drap hundinn.
                the.police killed the.dog
                'The police killed the dog'

        b.   Hundurinn var drepinn (af lögreglunni).
                the.dog   was killed   by the.police
                'The dog was killed (by the police)'

        c.   Hundurinn drapst   (*af lögreglunni).
                *the.dog   killed.*ST *by   the.police*
                'The dog got killed'

In fact, these constructions are typically not taken to imply agency, consistent with the translations here using *get*; any implication of agency in (21) may simply come from world knowledge, in contrast to the situation with an Icelandic participial passive. I will assume that the forms in (21) are structurally distinct from the periphrastic passive (specifically, I will argue below that they lack the external-argument-introducing *v* projection). I will refer to them as middles and will henceforth gloss them as such (though Icelandic has several constructions in *-st*, making it somewhat difficult to be sure which cases should be analyzed together; see Anderson 1990). I return briefly to middles in section V.

Importantly, the passive preserves dative case and removes accusative, as already mentioned. Note that in the ECM example mentioned above, the accusative case on the promoted object comes from the ECM verb, so it is still true that the passivized lower verb fails to assign accusative; that is clear from the raising example, in which the promoted object (still in situ) is nominative.

3   Lexical Determination of Object Case

In Icelandic, the usual object case is accusative, but a very large number of verbs appear with dative objects (cf. Maling 2001, Barðdal 2001; examples here from Maling and Thráinsson 1995).

(23)   a.   Bandaríkin hafa ekki aflétt viðskiptabanni   á Kúbu.
                *the.USA   has not lifted the.trade.embargo.*DAT *on Cuba*
                'The USA has not lifted the trade embargo on Cuba'

        b.   Sjómennirnir reyndu að bægja háhyrningunum   frá netinu.
                *the.sailors   tried   to drive the.killer.whales.*DAT *from the.net*
                'The sailors tried to drive the killer whales away from the net'

        c.   þeir flögguðu færeyska fánanum.
                *they flew   Faroese   flag.*DAT
                'They flew the Faroese flag'

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        b.   Ísland byggðist af Norðmönnum
                *Iceland built.*ST *by Norwegians*
                'Iceland was built by Norwegians'

Unlike German, where dative objects are oblique and behave syntactically much like PPs (Vogel and Steinbach 1998), Icelandic dative case is structural, and dative-marked objects pattern with ordinary accusative objects for various phenomena such as control, binding, secondary predication, promotion under passive, and so on (Maling 2001).

I have argued elsewhere (Svenonius 2002) that dative case on direct objects can be predicted, to a large degree, by the inner aspectual or Aktionsartal properties of the verb. Specifically, I have suggested that when a verb denotes a connected pair of subevents which do not perfectly overlap, then the object is marked dative. The clearest illustration of this is in the contrast between verbs of accompanied motion and verbs of ballistic motion, illustrated here.

(24)   a.   þeir báru   heyið   upp á   vagninn.
             they carried the.hay.ACC *up   on the.wagon*
             'They carried the hay up onto the wagon'
    b.   þeir hentu heyinu   upp á   vagninn.
             they threw the.hay.DAT *up   on the.wagon*
             'They threw the hay up onto the wagon'

When the motion is accompanied, as with a verb meaning 'carry,' then the event of the agent's action (introduced by *v*, the higher predicate) is indistinguishable from the event of the patient's motion: every part of the carrying event is also a part of the objects being carried. When the motion is ballistic, however, then the action on the part of the subject is not identical to the effect of that action on the object; there are parts of being thrown which do not correspond to the act of throwing, simply because a projectile continues to move after it is launched (cf. Krifka 1999 on this distinction being crucial in English for the dative shift construction).

There are alternating verbs, which can take either dative or accusative depending on whether the motion is ballistic (ex. from Maling and Thráinsson 1995).

(25)   a.   þeir skutu geimfaranum   á   loft.
             they shot   the.astronaut.DAT *on sky*
             'They shot the astronaut into the sky'
    b.   þeir skutu geimfarann.
             they shot   the.astronaut.ACC
             'They shot the astronaut'

This is generally true for the spray-load alternation verbs (see Svenonius 2002). In general, the possibility of taking a dative object can be thought of as part of the lexical meaning of the verb root. Since the accusative is the most common object case, I will mark dative-taking verbs with a diacritic, representing a dative-taking verb like *henda* 'throw' or *skjóta* 'shoot' as V_D. What is important to keep in mind is that the subscript corresponds to a semantically real distinction in event semantics (for details see Svenonius 2002), and that it does not imply that the root assigns dative case directly (the middle and

causative-inchoative alternations demonstrate that higher structure is involved, as I discuss below). The syntactic configuration that V_D and the object DP are placed in will determine whether dative case surfaces.

The standard analysis of the preservation of dative under passivization has been to say that certain verbs idiosyncratically assign 'inherent' or 'lexical' dative case to their arguments. Syntactic operations like passive are then thought not to be able to undo this. Part of the idea behind such a theory is that dative case is determined so early in the derivation that syntax cannot affect it. Here, I preserve that part of the traditional analysis by saying that dative is licensed low in the VP structure, lower than the passive head. However, it is not arbitrary, but semantically based, as I have suggested, and it is not 'inherent,' but structural, as I detail in the next section.

4   The importance of v for Case Assignment

Although roots must be specified as to whether they take dative objects or not, a root by itself is incapable of assigning case. This can be seen in causative-inchoative alternations, where the absence of an external argument corresponds with the lack of internal case assignment (exx. from Zaenen and Maling 1984 and Sigurðsson 1989).

(26) a. Ég   stækkaði garðinn.
          *I.*NOM *enlarged the.garden.*ACC
          'I enlarged the garden'
      b. Garðurinn   stækkaði.
          *the.garden.*NOM *enlarged*
          'The garden enlarged'

(27) a. Skipstjórinn   sökkti skipinu.
          *the.captain.*NOM *sank   the.ship.*DAT
          'The captain sank the ship'
      b. Skipið   sökk.
          *the.ship.*NOM *sank*
          'The ship sank'

On the assumption (Kratzer 1996) that an external argument is introduced by v, alternations like those above suggest that v is also involved in the assignment of structural case to the direct object. Thus, for accusative it seems that both v and V are necessary, and for dative both v and V_D are necessary.[4]

Causative-inchoative verbs which take accusative objects when they are transitive include those listed in (28).[5]

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[4]Of course, there are other sources of dative and accusative, for example prepositions. To extend the case theory being outlined here beyond those arguments affected by passive would go beyond the scope of this article.

[5]Some verbs are more flexible than others, and some have multiple meanings. Gunnar Hrafn Hrafnbjargarson informs me that *bakka*, *keyra*, and *geisla* can have dative objects under some circumstances.

(28) *bakka* 'back up,' *breikka* 'widen,' *byrja* 'begin,' *dýpka* 'deepen,' *enda* 'end,' *gleikka* 'widen,' *grynkka* 'make/become shallow,' *hækka* 'raise,' *keyra* 'drive,' *lækka* 'lower,' *ljókka* 'make/become ugly,' *mjókka* 'narrow,' *minnka* 'make/become smaller,' *malla* 'simmer,' *prýkka* 'make/become pretty,' *stækka* 'enlarge' (Zaenen and Maling 1984)

Causative-inchoative verbs which take dative objects when they are transitive, and thus by hypothesis are of type V_D, include those listed in (29).

(29) *aka* 'drive,' *dilla* 'wag,' *dingla* 'dangle,' *drúpa* 'droop,' *flagga* 'fly a flag,' *fljúga* 'fly,' *geisla* 'radiate,' *halda áfram* 'continue,' *hringja* 'ring,' *hringla* 'jingle,' *hætta* 'stop,' *loka* 'close,' *púðra* 'blow, powder' (Zaenen and Maling 1984)

The importance of v to case assignment is made even clearer by the middle alternation, illustrated below.

(30) a. Hann   skemmdi bílinn.
          he.NOM *damaged the.car*.ACC
          'He damaged the car'
      b. Bíllinn   skemmdist.
          the.car.NOM *damaged*.MIDDLE
          'The car got damaged'

(31) a. Ég   týndi úrinu.
          I.NOM *lost the.watch*.DAT
          'I lost the watch'
      b. Úrið   týndist.
          the.watch.NOM *lost*.MIDDLE
          'The watch got lost'

Here, even dative case is lost, systematically for middles of V_D. It is also systematic for deverbal adjectives that they do not determine the same lexically specified cases that they do as verbs (Sigurðsson 1989). This can be seen below; first, (32) demonstrates that the dative is preserved under the passive of *bjóða* 'invite,' as usual; then, (33) indicates that the adjectival form *boðinn* fails to determine case, agrees, and accepts the adjectival prefix *ó-* 'un-.'

(32) a. María bauð   honum.
          María invited him.DAT
          'María invited him'
      b. Honum   var boðið   (af Maríu).
          him.DAT *was invited by María*
          'He was invited (by María).'

(33) a. Hann   var boðinn   (*af Maríu).
          he.NOM *was invited*.M.SG.NOM *by   María*
          'He was invited'

    b.   Hann   var óboðinn   (*af Maríu).
          he.NOM *was uninvited*.M.SG.NOM *by   María*
          'He was uninvited'

The arguments of the unaccusative inchoative, middle, and adjectival forms in the examples above receive the same thematic roles from the verbal roots as do the internal arguments of the corresponding transitive verbs. Thus, the theory of inherent case which postulates a case linked to a thematic role cannot account for these alternations. Instead, I have suggested, dative case in Icelandic is assigned structurally by a combination of v and a V_D. Both are necessary for dative case to be assigned. The unaccusative inchoative, the middle, and the adjectival form are all missing v, and therefore cannot license dative case. The structural nominative is therefore used instead.

As noted in the introduction, Icelandic also has causative-inchoative alternations in which accusative or dative case is preserved in the inchoative (exx. from Zaenen and Maling 1984).

(34)   a.   Stormurinn   rak   bátinn   á land.
              the.storm.NOM *drove the.boat*.ACC *on land*
              'The storm drove the boat onto land'

        b.   Bátinn   rak   á land.
              the.boat.ACC *drove on land*
              'The boat drifted onto land'

(35)   a.   Jón   lauk   sögunni.
              Jon.NOM *finished the.story*.DAT
              'Jon finished the story'

        b.   Sögunni   lauk.
              the.story.DAT *finished*
              'The story ended'

Zaenen and Maling (1984) provide lists of stems in these categories; those which involve the accusative include the ones in (36), while those which involve the dative include the ones in (37).

(36)   *bera* 'carry,' *bíta* 'bite,' *blása* 'blow,' *bresta* 'lack,' *brjóta* 'break,' *fylla* 'fill,' *gára* 'ripple,' *hefja* 'begin,' *hrekja* 'drift,' *hreyfa* 'move,' *hvessa* 'sharpen,' *kitla* 'tickle,' *kreppa* 'bend,' *kæfa* 'put, go down,' *leiða* 'lead', *lengja* 'lengthen,' *leysa* 'loosen,' *lægja* 'lower,' *minna* 'remind,' *reka* 'drift, drive,' *reiða* 'brandish,' *vanta* 'lack'

(37)   *aflétta* 'lift,' *demba* 'spill,' *fjölga* 'increase,' *fækka* 'decrease,' *gera* 'do,' *gjósa* 'erupt,' *haga* 'arrange,' *halla* 'slant,' *hátta* 'arrange,' *hlaða* 'accumulate,' *hvolfa* 'capsize,' *kopa* 'stunt,' *kyngja* 'swallow,' *létta* 'lighten,' *linna* 'stop,' *ljósta* 'slap,' *ljúka* 'finish,' *ógna* 'fear,' *ofbjóða* 'shock,' *seinka* 'delay'

I have argued (Svenonius 2002) that these case-preserving constructions consistently involve a v, albeit one which does not introduce an external argument.

This allows the generalization to be maintained that internal structural case is only assigned in the presence of v. Pylkkänen (2002) argues that v can be decomposed into two subcomponents, call them DO and CAUS, where it is DO which introduces the external argument; CAUS only contributes a sense that there was an initiating event. Languages like English typically do not allow CAUS without DO, but, Pylkkänen argues, languages like Finnish and Japanese do. Here, then, Icelandic would also be such a language.

The alternative to decomposition is to assume that there are different kinds of v (somewhat as in Folli and Harley 2005), including one which introduces an external argument and one which does not. For my purposes the distinction is not crucial. Here I will simply represent the head, when present, as v, whether it is is meant to represent CAUS or the conflation of CAUS and DO. What is crucial is that some v, in these terms, is necessary in order for internal structural case to be assigned.

Thus, on these terms, (28) and (29) are causative-inchoative alternating verbs in which V (either the accusative-taking V in (28) or the potentially dative-taking V_D in (29)) optionally appears with v; if v is present, then there is an external argument and internal case; if not, the internal argument surfaces as a nominative subject. This can be illustrated for the examples in (26) and (27) in trees like the following.

(38)   garden.NOM enlarged $\sim$ I.NOM enlarged garden.ACC
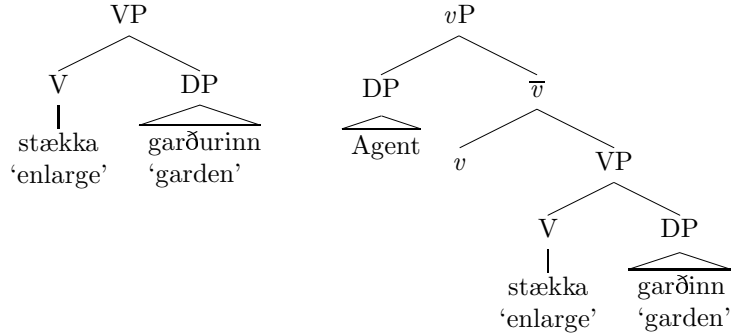

(39)   ship.NOM sank $\sim$ I.NOM sank ship.DAT
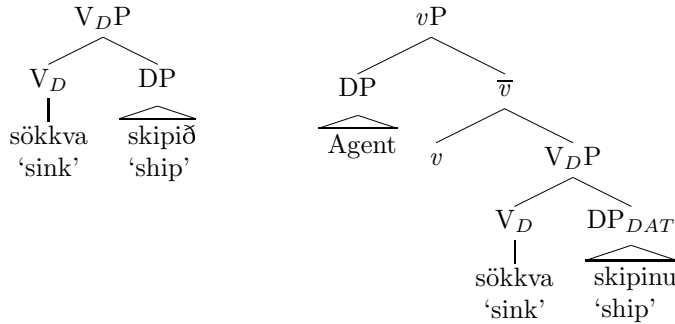
The middle alternation involves a middle clitic introduces by a middle head, which for present purposes can be identified as an alternative to v. Thus, the middle alternation illustrated in (4) above can be analyzed on a par with the structure for *sökkva* 'sink.'

(40)   I.NOM lost watch.DAT ~ watch.NOM lost.MIDDLE
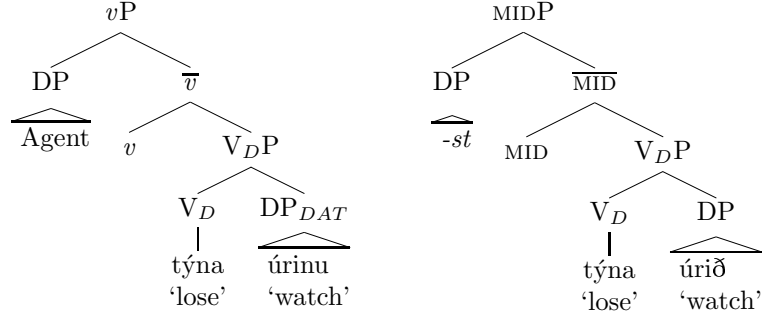
In addition, in Icelandic (but not in English), there are verbs like those in (36) and (37), which appear with a v which only optionally introduces an external argument, but always licenses internal case (this v also appears with both V, in (36), and V$_D$, in (37)). These are also sketched below, for accusative and dative case-preserving causative-inchoative pairs.

(41)   chimney.ACC blew ~ storm.NOM blew chimney.ACC
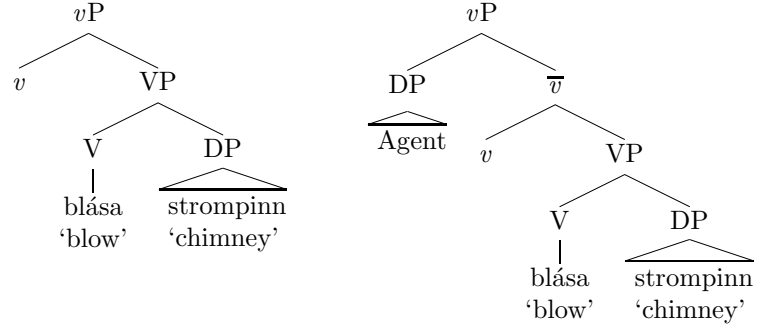
(42)   story.DAT finished ~ I.NOM finished story.DAT
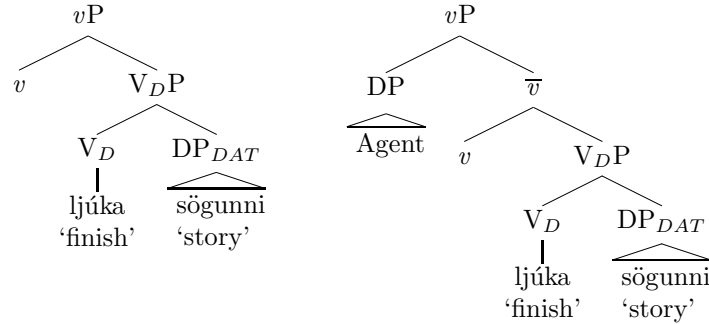
Crucial to the account will be a precise statement of how it is that the dative, but not the accusative, survives the passive. Note that even those verbs in (36), which lexically specify argumentless v and therefore occur with a single accusative-marked argument, lose the accusative under passivization of their transitive counterpart (exx. from Zaenen and Maling 1984, repeated from the introduction here).

(43)   a.   Strompinn   blés af húsinu.
              *the.chimney.*ACC *blew off the.house*
              'The chimney blew off the house'
    b.   Strompurinn   var blásinn af húsinu.
              *the.chimney.*NOM *was blown   off the.house*
              'The chimney was blown off the house'

The abstract CAUS which is present in (43a) must also be present in (43b); if it could be left out of such verbs, then there would be no way to distinguish case-preserving inchoatives like *blása* 'blow' from non-case-preserving ones like *stækka* 'enlarge' in (26). Thus, accusative, unlike dative, requires something which is available in the active but not in the passive. I suggest below that this something is located above v.

5   Conjugation Class

There is some evidence from conjugation classes for the analysis sketched in the previous section, whereby case-alternating causative-inchoative verbs involve the presence or absence of v but causative-inchoative verbs which preserve case do not. The basic observation is that the case-alternating verbs also alternate in conjugation class, while the case-stable verbs do not.

First, note that verbalizing suffixes determine conjugation class; for example, deadjectival *-ka* always forms weak verbs which form their past tenses by suffixing *-aði*.

(44)   a.   hækka (-aði) 'raise; rise' (cf. *há* 'high')
        b.   lækka (-aði) 'lower' (cf. *lág-* 'low')
        c.   minnka (-aði) 'make/become smaller' (cf. *minni* 'smaller')
        d.   mjókka (-aði) 'narrow' (cf. *mjór* 'thin')
        e.   stækka (-aði) 'grow, enlarge' (cf. *stór* 'big')
        f.   sljóvga (-aði) 'blunt, make dull' (cf. *sljór* 'blunt')

This is true whether the verbs above are used transitively or unaccusatively. Thus, the example presented in (26) and (38) above can be more fully diagrammed as follows (abstracting away from the matter of the morphological form of the adjectival root).

(45)   garden.NOM enlarged $\sim$ I.NOM enlarged garden.ACC
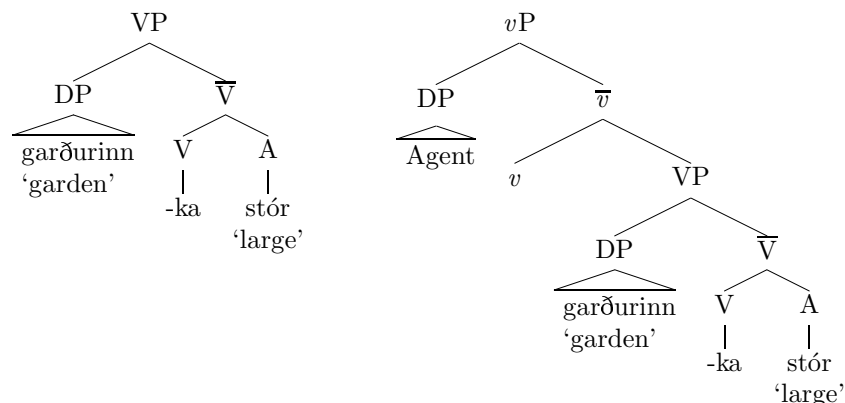
Now, note that many strong unaccusative verbs have weak transitive counterparts, as illustrated below.

(46)   a.   fella (-di, -t) 'fell, shed' (tr.) — falla (fell; féll féllu fallið) 'fall'
       b.   færa (-ði, -t) 'move' (tr.) — fara (fer; fór fóru farið) 'leave, go'
       c.   reisa (-ti, -t) 'raise' (tr.) — rísa (reis risu risið) 'rise'
       d.   brenna (-di, -t) 'burn, set on fire' (tr.) — brenna (brann brunnu brunnið) 'burn'
       e.   setja (-ti, -t) 'put, place' (tr.) — sitja (sat sátu setið) 'sit'
       f.   sprengja (-di, -t) 'explode, blast' (tr.) — springa (sprakk sprungu sprungið) 'burst, crack, split'
       g.   svelta (-i, svelt) 'starve' (tr.) — svelta (svalt sultu soltið) 'go hungry'
       h.   reykja (-ti, -t) 'smoke' (tr.) — rjúka (rýkur; rauk ruku rokið) 'smoke, steam; blow away'
       i.   þreyta (-ti, -t) 'tire, wear out' (tr.) — þrjóta (þrýtur; þraut þrutu þrotið) 'run out, be used up'

This can be simply explained if the transitive form is derived either from the unaccusative form or from some subpart of it by a verbalizer, v, that belongs to the weak conjugation class.

(47)   house.NOM burned ∼ I.NOM burned house.ACC

15
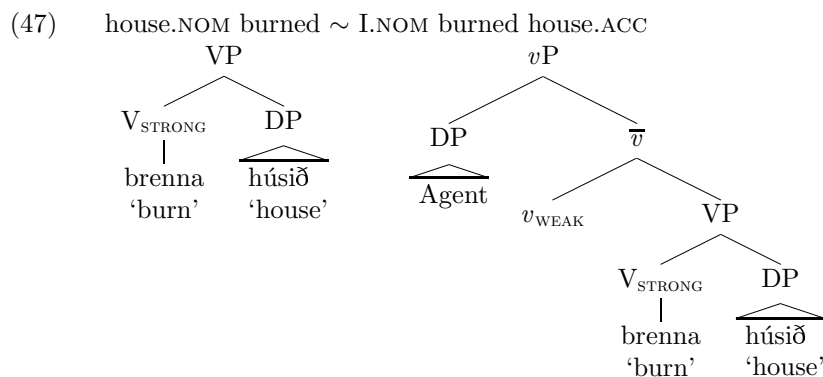
This same *v* may attach to a wide variety of V's, including some members of the category V$_D$, since some causatives of inchoatives take dative objects (like *sökkva* 'sink' in (27) above), as with the verbs below.

(48) a. dreypa (-ti, -t) 'drip' (tr. DAT) — drjúpa (drýpur; draup drupu dropið) 'drip'
     b. feykja (-ti, -t) 'blow' (tr. DAT) — fjúka (fýkur; fauk fuku fokið) 'be blow away'
     c. fleygja (-ði, -t) 'throw' (tr. DAT) — fljúga (flýgur; flaug flugu flogið) 'fly'
     d. fleyta (-ti, -t) 'float' (tr. DAT) — fljóta (flýtur; flaut flutu flotið) 'float'
     e. renna (-di, -t) 'pour' (tr. DAT) — renna (rann runnu runnið) 'slide, slip; flow, stream, run'
     f. sleppa (-ti, -t) 'let go' (tr. DAT) — sleppa (slapp sluppu sloppið) 'get away, escape'
     g. stökkva (-ti, -t) 'chase away' (tr. DAT) — stökkva (stekkur; stökk stukku stokkið) 'jump, leap, gallop'
     h. sökkva (-ti, -t) 'sink' (tr. DAT) — sökkva (sekkur; sökk sukku sokkið) 'sink'
     i. velta (-i, velt) 'roll' (tr. DAT) — velta (valt ultu oltið) 'roll'
     j. smella (-ti, -t) 'snap' (tr. DAT) — smella (small smullu smolið) 'snap'

There are also some alternations in which the transitive form is strong and the intransitive form weak. For example, the strong transitive verbs in (49) have unaccusatives derived by affixing *-na* to their participial form (cf. Sigurðsson 1989).

(49) a. brjóta (brýtur; braut brutu brotið) 'break, crack' (tr.) — brotna 'break, crack'
     b. kljúfa (klýfur; klauf klufu klofið) 'split, cleave' (tr.) — klofna 'split, crack'
     c. rifa (reif rifu rifið) 'tear, rip' (tr.) — rifna 'tear, rip open'
     d. rjúfa (rýfur; rauf rufu rofið) 'break open; cut off' (tr.) — rofna 'be broken, be cut off'
     e. slíta (sleit slitu slitið) 'snap, break' (tr.) — slitna 'snap, tear'
     f. svíða (sveið sviðu sviðið) 'singe, scorch' (tr.) — sviðna 'be singed, scorched'

The verbalizing suffix *-na* is not restricted to participles of strong verbs; it may also attach to weak roots.

(50) a. bræða (–di, -tt) 'melt' (tr.) — bráðna 'melt, thaw'
     b. steikja (-ti, -t) 'roast, fry, grill' (tr.) — stikna 'be roasted'
     c. þíða (-ddi, -tt) 'thaw' (tr.) — þiðna 'thaw'
     d. hita (-aði) 'warm' (tr.) — hitna 'get warm'

  e. losa (-aði) 'loosen' (tr.) — losna 'come loose'
  f. þurrka (-aði) 'dry off' (tr.) — þorna 'dry'
  g. slaka (-aði) 'ease slack, slacken' w/*á e-u* (tr.) — slakna 'become slack'

It also attaches to adjectives (cf. Sigurðsson 1989).

(51) a. blána 'become blue' (cf. *blár* 'blue')
  b. bráðna 'melt' (cf. *bráðinn* 'melted')
  c. fúlna 'turn sour' (cf. *fúll* 'sour, rotten, stinky, foul')
  d. glaðna 'become happy' (cf. *glaður* 'happy')
  e. grána 'become grey' (cf. *grár* 'grey')
  f. gulna 'yellow' (cf. *gulur* 'yellow')
  g. hlýna 'become warm' (cf. *hlýr* 'warm')
  h. hvítna 'whiten' (cf. *hvítur* 'white')
  i. slakna 'slacken' (cf. *slakur* 'slack')
  j. stirðna 'stiffen' (cf. *stirður* 'stiff')
  k. súrna 'sour' (cf. *súr* 'sour')
  l. þrútna 'swell' (cf. *þrútinn* 'swollen')

However, -*na* does not generally attach to verbal roots of the V_D sort; hardly any unaccusative -*na* verbs have dative-taking transitive counterparts of the ballistic motion sort.[6] This provides independent support for the postulated feature D.

Importantly, -*na* verbs always belong to the weak conjugation, as expected given that -*na* will be the highest verbal element in the verbal complex that it forms.

Assuming, then, that conjugation class is determined by the highest verbal element, either v if there is one or V if there is no v, a prediction is made regarding the non-alternating verbs: since I have suggested that they always include v, enabling them to assign their internal cases, this predicts that they will not change conjugation class between the causative form and the inchoative form, since the highest verbal element will always be v in both cases. This is borne out; Zaenen and Maling (1984) note that case-preserving causative-inchoative verbs always belong to the same conjugation class in both of their forms.

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[6]Many -*na* verbs take 'experiencer' dative subjects, however; see Sigurðsson (1989) on examples like the following.

(i) a. Ástandið   batnaði
   *the.situation.*NOM *improved*
   'The situation improved'
  b. Jóni batnaði veikin
   *Jon.*DAT *recovered illness*
   'Jon recovered from the illness'

This suggests that experiencer dative subjects should be distinguished from V_D objects. Note that experiencer *objects* are never dative (Jónsson 2003; though benefactive objects may be, cf. Barðdal (1993)).

Incidentally, if DO and CAUS are separated, then this shows that CAUS, but not DO, is relevant to conjugation class in Icelandic, since the only part that alternates in the non-alternating verbs is the presence or absence of the external argument, which by hypothesis is introduced by DO.

6   Passive

Since the participle is used in the perfect tense, and since perfect tense forms have all the same entailments regarding the subject that other tense forms do, the participle cannot be directly equated with passive. One approach to this state of affairs is to allow the participial morphology to ambiguously express either passive or the perfective; such an approach is pursued by Embick (1998).

The alternative is to postulate a common meaning, shared by the passive and the perfect, contributed by the participial morphology. Ramchand and Svenonius (2004) pursue the latter tack. Specifically, in that work it is suggested that the participial morphology allows the root to identify a result state. This means that v is present in passive forms as usual, and introduces its external thematic role. However, in passive constructions the specifier of v is filled not by a full DP argument, but by a null operator which existentially binds the external argument position. The presence of this null operator can be detected by the usual tests that distinguish truly agentless unaccusatives from passives, which always have implicit agents. For example, 'by' phrases, which have already been illustrated, can be said to be licensed by the null operator, and the null operator can be assumed to function as a subject in control structures and with agent-oriented adverbials, as in this example, from Zaenen and Maling (1984).
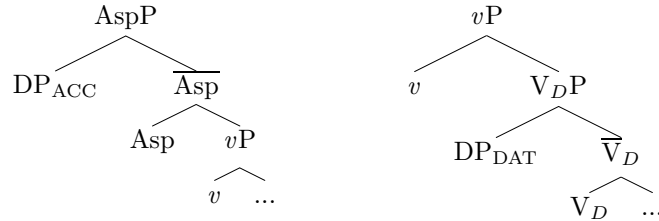
(52)   a.   Bátnum hvolfdi   (*viljandi).
             the.boat capsized on.purpose
             'The boat capsized (*on purpose)'
        b.   Bátnum var hvolft   (viljandi).
             the.boat was capsized on.purpose
             'The boat was capsized (on purpose)'

I will also assume that an aspectual head, call it Asp, is involved in the assignment of accusative case, essentially following Borer (2005). Recall, however, that v is also vital for the assignment of accusative. This means that Asp and v together must provide accusative case. On the theory of case sketched in Svenonius (2002), case is a way of anchoring an argument to an event; at each juncture of two subevents, one case is available. In that work, I suggested that either accusative or dative was available at the juncture of v and V, depending on the Aktionsart of V; here I revise that proposal slightly by suggesting that although dative is available at the juncture of v and V_D (as before), accusative is not available in vP, but at the juncture of Asp and v. This suggests that in some cases, both dative and accusative might be available to the same argument. I will argue that this is a positive result.

The two typical structural case assignment configurations for Icelandic might

be schematized as follows (though the exact position of the DPs is open to discussion).

(53)   Case assignment configurations

$$
\begin{array}{ccc}
& \text{AspP} & & & \text{vP} \\
& \diagup\diagdown & & & \diagup\diagdown \\
\text{DP}_{\text{ACC}} & \overline{\text{Asp}} & & v & \text{V}_D\text{P} \\
& \diagup\diagdown & & & \diagup\diagdown \\
\text{Asp} & v\text{P} & & \text{DP}_{\text{DAT}} & \overline{\text{V}}_D \\
& \diagup\diagdown & & & \diagup\diagdown \\
v & \ldots & & & \text{V}_D \quad \ldots
\end{array}
$$

As noted above, dative and accusative case can persist to subject position in Icelandic, under certain circumstances. Zaenen et al. (1985) have established beyond any doubt that these arguments are in fact subjects. Thus there is no reason to think that nominative case is not available there (in fact, nominative appears to be a default case in Icelandic, and always available; cf. Sigurðsson 2001).

Thus, we can assume that once case is assigned in Icelandic, its morphological exponence is preserved, and not overridden by additional case licensing. This means that a DP with dative, which is assigned in the verb phrase, might potentially also enter an accusative or nominative-licensing domain without reflecting this morphologically (this interpretation of the facts conflicts with 'competition' analyses such as those developed by Marantz 1991, Haider 2000, Sigurðsson 2001, or Woolford 2003).
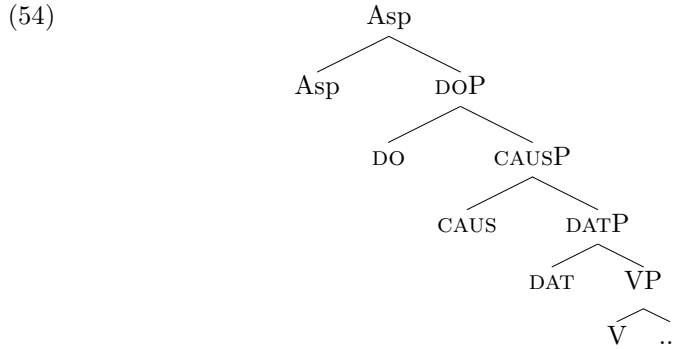
If PASS is an Asp head, then it might be expected to disrupt the assignment of accusative case, on the assumptions laid out here, but not dative case. If the middle is a v head, then it will disrupt both.

An important part missing from this analysis of the passive so far is the question of when the null external argument is licensed. So far I have suggested that the same v is present in active and passive verbs, and the same participial head is present in active perfects and in passives. But active verbs in Icelandic do not allow null subjects, regardless of whether they are in the perfect tense or not. Therefore, some additional element is needed.

This, then, must be part of the function of PASS. Just as the active Asp head licenses accusative case on an object, PASS licenses the null operator. PASS might also be taken to require that DO be present in the verbal complex to which it attaches; this would ensure that the Icelandic passive only attaches to agentive verbs (in contrast to the situation in English, where it seems that CAUS is sufficient).

A simpler analysis would be one in which the reason PASS requires DO is because, essentially, it provides whatever feature DO provides, i.e. something like agency. In a sense, then, DO and PASS are simply alternative versions of the VOICE head postulated by Pylkkänen 2000 and others, distinct from CAUS. However, PASS necessarily obviates the presence of the accusative-licensing Asp head.

This suggests a further decomposition: If the functional heads are Asp, DO, and CAUS, then we can identify lexical items *PASS* (corresponding to Asp and DO, licensing a null operator but not accusative case), *ACT* (corresponding to Asp and licensing accusative case), and v (corresponding to DO and CAUS). Following this line of thinking, D could be decomposed from V_D (as, e.g. DAT) and projected above it; a verb like dative-taking *sökkva* 'sink' is a combination of V and DAT. The middle is, as before, a kind of CAUS. This yields the hierarchical structure below.

(54)

```
                    Asp
                   /   \
                 Asp    DOP
                       /   \
                      DO    CAUSP
                           /    \
                        CAUS     DATP
                                /   \
                              DAT    VP
                                    /  \
                                   V    ...
```

7 Conclusion

I have suggested an account of case assignment in Icelandic passives. It is based on a conception of case as a means of anchoring a DP to an event structure. The background idea is that DPs represent (roughly speaking) individuals, and AspPs represent events; to coindex an individual with an event would give the wrong results, so instead individuals are associated with event *transitions*; the transition from v to V_D (from the initiating subevent to the resultant subevent, cf. Ramchand 2003, Ramchand and Svenonius 2002) is one such licensing context; the transition from Asp to v (from the reference time to the event as a whole) is another.

Within this basic framework of assumptions, I developed an account of the distribution of dative and accusative in causative-inchoatives, passives, and middles. The basic observation is that there are essentially three different contexts: middles and 'normal' causative-inchoative pairs, passives, and case-preserving causative-inchoative pairs. With middles and 'normal inchoatives, the case on the single argument is nominative. With passives, a dative object remains dative but an accusative turns up as nominative. Finally, with case-preserving causative-inchoative pairs, case is preserved. Importantly, even accusative-taking inchoatives lose the accusative if they are first transitivized and then passivized. This means that a 'lexical' or 'inherent' account, stipulating some sort of irrevocable accusative for these roots, will not describe the facts.

The loss of dative in the middle means that dative is not 'inherent' either. Furthermore, the passive shows that the dative and accusative behave differently.

The solution proposed here is to treat both dative and accusative as structural cases, with the licensing configuration for the dative determined lower than that of the accusative. The middle is then low enough in the structure to disrupt the assignment of dative, but the passive is too high.

This correlates with the fact that the middle removes the external argument completely, while the passive simply licenses a null operator in the position of the external argument. This appears to be a common strategy cross-linguistically for the passive.

The account suggests, however, that a straightforward equation of voice with v is likely to be too simple, at least for a language like Icelandic. The licensing of internal case, the introduction of an external argument, and the licensing of the null operator all have to be separated.

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