The goal of this article is to understand the syntax of Icelandic indirect causatives (ICs), especially with respect to the implicit causee. We show that the complement of the causative verb must be at least as large as a VoiceP, and that it shares some properties with active VoicePs and others with passive VoicePs. We make sense of this state of affairs by proposing that the causee, while phonetically silent, has an explicit syntactic representation, but as a /H9278P rather than a DP. We further propose that ICs are built by stacking a second VoiceP on top of the lexical verb’s first VoiceP, and that this configuration, along with the underspecified interpretation of /H9278P, leads to a special thematic interpretation of both the causer and the implicit causee. Our analysis suggests that there are certain core ingredients involved in building ICs—such as stacked VoicePs and an underspecified causee—but that the source of these ingredients can vary across languages and constructions, depending on the formal primitives that grammars make available to the languages more generally.

Keywords: causatives, indirect causatives, implicit arguments, by-phrases, passives, middles, voice, quasi-actives

1 Introduction

Going back to Kayne 1975, causative constructions have played an important role in linguists’ understanding of a wide variety of issues, including cyclic domains, case marking, and voice alternations. Indirect causatives (ICs), where the causee is left implicit, have presented challenges connected to the understanding of verb phrase cartography (Ramchand 2008, Harley 2013b, 2017), voice and passives (Pitteroff 2014), and complex predicates (Taraldsen 1983, 1984, Folli and...
An example of an Icelandic IC is given in (1a) and an ordinary causative is given in (1b).1

(1) a. Ég lét byggja hús.
I.NOM let.PST build.INF house.ACC
‘I made (someone) build a house.’

b. Ég lét Guðrún byggja hús.
I.NOM let.PST Guðrún.ACC build.INF house.ACC
‘I made Guðrún build a house.’

(1a) means that I made someone build a house; the causee, however, is not expressed overtly. In (1b), the causee is explicitly named and is marked with accusative case.

ICs have been well-studied in the literature on Scandinavian languages (Taraldsen 1983, 1984, Christensen 1986, Herslund 1986, Platzack 1986, Vikner 1987, 1989, Johnson and Vikner 1995, Lundin 2003, McFadden 2004:200ff., Wood 2011, Wood and H. Á. Sigurðsson 2014, Lødrup 2017). However, the actual status of the implicit argument of ICs has not received much attention in the Scandinavian literature, which has focused more on the issues of clausal architecture (such as the size of infinitives), reanalysis/clause-union effects, word order, and case assignment. When the issue of the implicit causee is addressed at all, it is generally assumed that the causee is not present syntactically or semantically.2 Most work has assumed that ‘let’ and the embedded verb together assign a single subject θ-role to the matrix subject.

Research on other languages has more explicitly connected the status of the implicit causee to voice alternations such as active versus passive. Causatives in French, and subsequently many other languages, have been divided into faire-infinitif (FI), as in (2a), and faire-par (FP), as in (2b).

(2) a. Marie fera boire cette eau à son chien.
Marie will.make drink this water to her dog
‘Marie will have her dog drink this water.’

b. Marie fera boire cette eau par son chien.
Marie will.make drink this water by her dog
‘Marie will have this water drunk by her dog.’

(Kayne 1975:239)

1 Icelandic lát ‘let’ overlaps in meaning with let, make, and have. In this article, we always gloss lát as ‘let’, but translate it as ‘let’, ‘make’, or ‘have’ where appropriate. The judgments of Icelandic examples, whether constructed or attested, reflect the judgments of the first author. We have consulted other speakers in cases where we suspected the possibility of speaker variation, and have noted such variation explicitly.

2 For example, Taraldsen (1983, 1984) and Christensen (1986) propose a process of projection compounding where the embedded verb and the matrix verb simultaneously head the VP projection and act as a single verb; there is no syntactic manifestation of the causee, and no indication that it is represented in the semantics either. Platzack (1986) proposes a similar process—abstract incorporation—where the embedded verb and the matrix verb compositionally assign a single θ-role to the overt subject, and there is no pro, PRO, trace, or other silent NP representing the causee. Vikner (1987:270) proposes that the embedded verb loses its subject θ-role under reanalysis, and has no representation of the causee in the syntax.
The intuition found throughout the literature is that in FP, the embedded verb phrase is essentially
detransitivized—lacking an external argument—such as through a sort of a passivization or nomi-
nalization, while in FI, the embedded verb phrase is transitive (with the causee being projected
in the syntax) (Kayne 1975, Folli and Harley 2007). As discussed by Folli and Harley (2007),
FP is illicit when the embedded verb is not passivizable, and it is subject to several other restrictions
as well. Focusing on Georgian, Nash (2017) argues that the embedded verb phrase is really
detransitivized as a middle voice (in the sense of Doron 2003, 2015), explaining why the causee
lacks certain agentive properties, and that (part of) Georgian causative morphology really reflects
this detransitivizing middle voice. Her intuition is that the IC reading arises when the embedded
agent is maximally underspecified. We will build on this intuition, but we will propose that middle
voice is not the only way to derive the maximally underspecified argument involved in the
construction of the IC reading.

The goal of this article is to investigate the syntax of Icelandic ICs, with a focus on the
embedded clause structure and the status of the implicit causee. We contribute to the broad formal
typology of ICs by showing how Icelandic ICs are not exactly active, passive, or middle, but
share various characteristics with all three. We will propose that, contrary to previous work on
Scandinavian (including Icelandic), there is a syntactic manifestation of the implicit causee in
the embedded clause in the external argument position, Spec,VoiceP, as one might expect from
an active analysis (like Folli and Harley’s (2007) account of FI, but with a silent causee). However,
ICs do not have all the properties of an active VoiceP. We propose that this is because the causee
is not represented by a full, referential DP, but by a φP, as proposed for “grammatical object
passives” (to adopt Legate’s (2014) term) and various other constructions in Icelandic (E. F.
Sigurðsson 2017). We refer to such VoicePs as “quasi-active” to emphasize that although they
are syntactically active, in the sense that they contain a syntactic external argument in Spec,VoiceP,
they have various characteristics in common with middles and passives.\footnote{H. Á. Sigurðsson (2011:160), defending a very similar sort of analysis of the Icelandic “new impersonal passive,”
describes his analysis as suggesting that it is an “unusually ‘active passive.’” We might characterize our analysis as an
unusually passive active, but the general intuition is conceptually quite similar: this is a structure that shares properties
with both actives and passives.}

We further propose that the matrix causative verb realizes a second Voice head on top of
the embedded Voice head, adapting aspects of Nash’s (2017) analysis of Georgian (see also Nie
2020, where a version of this structure is generalized to morphological causatives in general).
We will occasionally refer to this aspect of the analysis as Voice stacking. The structure we
ultimately propose for (1a) is presented in (3).\footnote{A note on notation. We assume that roots are syntactically separate from verbalizers, as is standard in Distributed
Morphology, and therefore represent the lexical verb layer as vP. However, we omit explicit separation of the root, and
as far as we can tell, most of what we propose in this article would work just as well if vP were replaced with VP. The
layer that introduces the external argument is Voice. For expositional purposes, when discussing other analyses, we adapt
them to this notation: v for the lexical verb layer, and Voice for the layer that introduces the external argument.}
Note that many of the facts discussed in this article would be compatible with there being a \( v \) head between the two Voice heads in (3). However, certain other facts are difficult to account for on that view, including ones connected to control and decreased agency available to \( \phi P \) compared with overt DP causees. We will show how the Voice-stacking analysis accounts for these facts in a way that is able to incorporate insights found in previous literature on ICs, in Scandinavian and elsewhere.

However, some of the arguments in favor of our analysis, and against an analysis involving an embedded passive or middle Voice head, will depend on the ways that Icelandic is different from languages that have been argued to use those means to construct ICs. This suggests that some languages, unlike Icelandic, do use passive or middle Voice to build ICs. That is, there are different syntactic paths to the same (or very similar) semantic result (IC semantics). Which path(s) a language makes available depends on what primitives are independently available. Some languages use a passive Voice, others a middle Voice, and others (including Icelandic) a quasi-active Voice with a highly underspecified argument in its specifier (making it syntactically active, but with some properties in common with passives). The commonality underlying this variation is that the IC reading involves stacked VoicePs, with the embedded VoiceP as the locus of a highly underspecified thematic argument.

The article is structured as follows. In section 2, we provide some basic background on implicit external arguments and their connection to the voice system, and discuss how ICs bear on the issue. In section 3, we start with what we call the “bare vP” analysis, which has been assumed in most of the Scandinavian literature in one form or another. In section 4, we then turn to evidence that the embedded verb phrase must contain at least a VoiceP layer, but we remain agnostic as to whether there is an external argument in that layer (or whether it is a passive VoiceP, for example). In section 5, we provide evidence that in fact there is something in the external argument position of the embedded VoiceP layer. In section 6, we turn to the structural properties of this external argument, propose that it is a \( \phi P \) rather than a DP, and discuss the
thematic interpretation of this $\phi$P in the context of the Voice-stacking analysis shown above. In section 7, we summarize our conclusions.

2 Background: Implicit Arguments and Indirect Causatives

Descriptively, we can talk about implicit arguments in any situation where there is a semantically understood argument that is not expressed overtly. Then the interesting question from a linguistic standpoint is where they come from. Do they have a representation in the syntax, even if they are not overt? Are they purely implied, by the pragmatics or the semantics of a construction? Research on implicit arguments seems to reveal that there is no single answer: sometimes they are syntactically present, and other times they are not (Bhatt and Pancheva 2006). For example, one could take PRO, the silent argument of a control construction, to be an implicit argument, even though it is present syntactically. On the other hand, in a sentence like Jane bought a book, we might know that an unpronounced seller is involved, but it is entirely possible that this is purely a pragmatic effect of our knowledge of what buying events involve.

As another case, consider the classic contrast between the sentences in (4).

(4) a. The boat sank. (Unaccusative/Anticausative)
   b. The boat was sunk. (Passive)

Native speakers report that the meaning of (4b) asserts an implicit agent, whereas the meaning of (4a) does not. Such intuitions are corroborated by a variety of tests that seem to pick out the implicit agent. For example, as shown in (5), the passive is compatible with a by-phrase naming the agent, an instrument phrase naming the item the agent used, or a purpose clause naming the reason that the agent did what they did. On the other hand, as shown in (6), the unaccusative is not compatible with any of these phrases.

(5) Passives
   a. The boat was sunk by the enemy captain. (Agentive by-phrase)
   b. The boat was sunk with a hammer and a nail. (Instrument)
   c. The boat was sunk in order to collect the insurance. (Purpose)

(6) Unaccusatives/Anticausatives
   a. The boat sank (*by the enemy captain). (*Agentive by-phrase)
   b. The boat sank (*with a hammer and a nail). (*Instrument)
   c. The boat sank (*in order to collect the insurance). (*Purpose)

The generally held view, then, is that passives have a genuine implicit argument in the semantics (or even the syntax), while unaccusatives do not. Drawing on ideas in Kratzer 1996, Pylkkänen 2002, and others, Alexiadou, Anagnostopoulou, and Schäfer (2015) propose the difference has

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5 Bhatt and Pancheva (2006:560) state that “[b]y general assumption . . . the term ‘implicit arguments’ is reserved for those covert elements about whose syntactic representation we still have doubts.” We will generally use the term implicit when we want to remain neutral about the syntactic status of an argument, and silent when we are assuming it is there syntactically.
to do with the presence or absence of VoiceP.\(^6\) Thus, Alexiadou, Anagnostopoulou, and Schäfer (2015) take the structural difference between actives, passives, and unaccusatives to be (roughly) that in (7).

\[(7)\]

\begin{align*}
\text{a. Active} & \quad \text{b. Passive} \\
\text{Active} & \quad \text{Passive} \\
\text{TP} & \quad \text{TP} \\
\text{T} & \quad \text{T} \\
\text{VoiceP} & \quad \text{PassiveP} \\
\text{DP} & \quad \text{Passive} \\
\text{Voice'_} & \quad \text{VoiceP} \\
\text{Voice_{ACT}} & \quad \text{vP} \\
\text{vP} & \quad \text{vP} \\
\text{sink the boat} & \quad \text{sink the boat}
\end{align*}

In both the active and passive structures, there is a Voice head that introduces agentive semantics. In actives, the agent is projected syntactically in Spec, VoiceP. In passives, the agent remains part of the semantics of Voice, but is not projected syntactically.\(^7\) In the unaccusative structure, however, there is no Voice head and therefore no agentive semantics, whether explicit or implicit. Even if we know from world knowledge that there is an agent, as in sentences like We hit the boat with the missile and it sank, the unaccusative is built/packaged in a way that excludes a representation of the agent in its meaning (Rappaport Hovav 2014).\(^8\)

As mentioned above, ICs are also constructions where the causee is left implicit. Note that in the Icelandic example (1a), there is no overt argument or morpheme (such as a passive or

\(^6\) Alexiadou, Anagnostopoulou, and Schäfer 2015 is actually the culmination of a long line of work, going back at least to Alexiadou and Anagnostopoulou 2004, and worked out in detail in Schäfer 2008—and even then building off of earlier literature. In this article, we take Alexiadou, Anagnostopoulou, and Schäfer 2015 to be representative of this line of work.

\(^7\) Note, however, that some researchers do propose that the implicit argument of passives is syntactically projected (Collins 2005, Landau 2010).

\(^8\) In fact, another way to build an anticausative in this framework is to merge an expletive Voice head, which may be specifierless or take an expletive specifier (see especially Schäfer 2008, 2012a, 2017). This is the analysis of Icelandic -st anticausatives in Wood 2012, 2014, 2015, where the -st occupies the specifier of an expletive Voice head. See section 4.4 below for further discussion of the -st morpheme.
intransitivizing affix) corresponding to the causee. Nevertheless, speakers have a strong intuition that there is a causee in the meaning of this sentence: someone built the house, and it was not the subject of the matrix clause.

The question at the center of this article is what the nature of the implicit argument in (1a) is. It is quite clearly not PRO, at least not a familiar kind of PRO. It is not controlled by the overt subject, and in fact, as we discuss below, it must be understood as distinct from it. Nor is it coreferential with a speech act participant like the speaker or addressee (see Landau 2015a), except perhaps incidentally or accidentally. Finally, the complement of causative la`ta ‘let’ in ICs is quite small, apparently smaller than a CP or even a TP (Pitteroff 2014), but at least as large as a vP (Ingason and Wood 2017). This too makes it unlikely (though perhaps not impossible) that ICs are control constructions.9

To develop our analysis of Icelandic ICs, we will start with the least structurally elaborated option, which has been the majority analysis in the literature to date (see references above). In this view, the complement is a bare vP, with no external argument or passive Voice head. The implicit causee is implied pragmatically and does not correspond to anything in the syntactic structure directly.

3 Bare vP Analysis

As mentioned above, previous work on Scandinavian ICs has assumed that the implicit causee is syntactically just not there. In this view, lát’a ‘let’ takes a bare vP complement, with no external argument. This analysis has been proposed for Scandinavian (Taraldsen 1983, 1984, Christensen 1986, Vikner 1987, Lundin 2003, McFadden 2004; see Wood 2011, Wood and H. Á. Sigurðsson 2014 for Icelandic specifically),10 Hiaki (Harley 2013a), and Italian (Folli and Harley 2007), among other languages. One general claim in this literature is that ICs come in two different kinds: one kind allows passive by-phrases, and another kind does not.11 (Throughout, depending on context, “by-phrase” refers to the English phrase and/or crosslinguistic counterparts.)

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9 See Landau 2013:18–21 on the crosslinguistic generalization that control complements are CPs while raising complements are TPs. Idan Landau (pers. comm.) points out that according to his (2015b) system, a control complement could be as small as a TP for implicative verbs (of which causative verbs such as ‘force’ are a subset). However, this is only possible if the control relation is derived by predication, which would require the presence of a syntactic argument (corresponding to the causee) to serve as the subject of that predication. Thus, if we tried to account for the implicit argument by claiming that it is PRO, we would only beg the question concerning the status of the nonovert controller. Since we find no evidence in favor of a control analysis, and it would raise these additional difficulties, we do not pursue that line of inquiry here.

10 Like many of these authors, Platzack (1986) adopts “projection compounding” (the idea that ‘let’ and the embedded verb act as a single verb), although he assumes more syntactic structure in the complement of ‘let’.

11 Within Scandinavian, there is an interesting correlation with word order. Danish allows OV order and allows by-phrases. Swedish disallows OV order and disallows by-phrases. Norwegian and Faroese allow either VO or OV and allow by-phrases only with OV order. This fact has thus played a role in the research on Scandinavian. German fits this profile in that it allows by-phrases and has an OV order, but OV is typical of German in a way that it is not typical of Scandinavian. However, the correlation does not hold in Romance, where by-phrases are possible in Italian and French with a VO order. Moreover, we will illustrate below that by-phrases are sometimes possible in Icelandic with a VO order. We therefore set aside the word order question and focus on how this variation is connected with the bare vP analysis.
(8) a. **German**

Er lässt den Wagen (von dem Mechaniker) reparieren.

he lets the car (by the mechanic) repair.

‘He makes the mechanic repair the car.’

(Pitteroff 2014:80)

b. **Danish**

Han lod kapellet udsmykke af Matisse.

he let chapel the decorate by Matisse

‘He had the chapel decorated by Matisse.’

(Vikner 1987:271)

c. **Swedish**

??Martin låt bygga huset af Peter.

Martin let build house by Peter

‘Martin had the house built by Peter.’

(Vikner 1987:271)

The idea of the bare vP analysis would be that when by-phrases are not allowed, the complement of ‘let’ is just a bare vP, with no syntactic representation of the agent, as in (9).\(^{12}\) A variant is that ‘let’ is itself a realization of Voice, so that the structure is even smaller (as Lundin (2003) proposes), as in (10).

\[\text{VoiceP} \]  
\[\text{DP} \]  
\[\text{Voice} \]  
\[\text{vP} \]  
\[\text{‘let’} \]  
\[\text{vP} \]  
\[\text{‘build’} \]  
\[\text{DP} \]  
\[\text{‘the house’} \]

\(^{12}\) Vikner (1987) suggests that by-phrases in Danish are an exceptional case, and generally argues that the embedded verb has no subject 0-role to assign at all. He does not, as far as we can tell, give an account of the difference between Swedish and Danish with respect to by-phrases.
On this view, the question is what the interpretation of the construction is that gives rise to the very salient reading that there is an implicit agent. Much of the literature on Scandinavian has been more or less silent on the issue. Vikner (1987) says explicitly that the embedded verb has no subject \( \theta \)-role at all, and argues (p. 270) that instrument phrases are not acceptable (cf. the instrument test above). The implication of an argument must then come from somewhere else.

Harley (2013a) proposes that even in a system where agents are introduced syntactically by Voice, they can be implied at the level of the vP. Thus, the higher causative verb, in addition to expressing causation, existentially closes over the open implicit argument of the complement vP (much as the Passive head existentially closes over the implicit argument of its VoiceP complement in Bruening 2013). However, this does not provide an account of the unavailability of agentive readings in unaccusative anticausatives. If a vP without a VoiceP layer (or with an expletive VoiceP layer) can imply an agent, we would expect *The boat sank*, with the structure in (11), to have a reading with an implicit agent (and license by-phrases, instrument phrases, etc.).

Since Harley’s (2013a) analysis introduces an agent at the vP level, it accounts for the availability of a passive by-phrase to express the causee overtly: the by-phrase saturates the agent role introduced at the vP level. However, this is only correct for languages that allow such by-phrases; it does not account for languages where the by-phrase is unavailable or highly restricted (despite the presence of an implicit agent semantically).

To address this issue, Lundin (2003) presents an insightful idea that she refers to as agent splitting. Her analysis focuses on Swedish, a language where ICs imply a causee argument semantically, but by-phrases cannot express the causee syntactically. Her idea is that a canonical agent involves two components: an INITIATOR who is responsible for the agentive, sentient aspects of bringing the event about, and a DOER who is responsible for performing the physical actions that
bring the event about. Canonical agents do both things. What ‘let’ does is split the two components, so that the overt subject is understood only as an INITIATOR. This leaves one-half of the “agency” unexpressed syntactically and semantically. We can then easily imagine that the implication of a DOER is pragmatic. The implied argument is truly implied, on this view, with no syntactic representation at all. We will propose below that the basic idea of agent splitting is on the right track, and we will connect it to the interpretation of the stacked VoicePs presented in the structure in (3). However, although we agree that ‘let’ in ICs is the realization of an external-argument-introducing head, we provide evidence in the remainder of the article that there is, in fact, more structure than the above analysis would suggest. We will first provide evidence that there is an additional VoiceP layer in the complement of ‘let’.

4 Evidence for a VoiceP Layer

In this section, we provide four pieces of evidence that there is, in fact, a VoiceP in the complement of the IC verb. First, while agentive by-phrases are restricted in Icelandic ICs, under certain circumstances they are possible. Second, instrument phrases are possible. Third, transitivity restrictions on the embedded event follow from the presence of VoiceP. Fourth, the morphological form of the embedded verb suggests a VoiceP layer. We review each of these points in turn.

4.1 Agentive By-Phrases

Icelandic has generally been thought to be among the languages that do not allow by-phrases with ICs, implying that there is no VoiceP (Jónsson 2009, Wood 2011, Wood and H. Á. Sigurðsson 2014). Indeed, speakers consistently reject af Jón ‘by Jón’ in (12), and this is different from parallel examples in German, Danish, Italian, or French.

(12) Églétlǫrtovuna (*af Jóni).
I.NOM let.PST repair.INF computer.the.ACC (*by Jón)
‘I had the computer repaired.’
(Jónsson 2009:294)

However, it turns out that by-phrases are possible under certain circumstances in Icelandic ICs (see E. F. Sigurðsson 2012:5). Some attested examples are shown in (13).

(13) a. það er ónotaleg tilhugsun að eiga í væendum að láta sinna sér
it is unpleasant thought to expect.INF to let.INF look.after.INF REFL.DAT
af fyrirtæki sem lítur á það sem hlutverk sitt að skapa arð . . .
by company who looks at it as role its to collect profits . . .
‘It’s an uncomfortable idea to expect to have yourself looked after by a company who sees it as its role to collect profits . . .’

13 http://www.visir.is/g/2015706229983 (accessed 3 December 2018).
b. æjji ekki gott . . . en getur þú ekki talð við leiguðalann og látið
oh not good but can you not talk.PTCP to landlord.the and let.PTCP
althuga þetta af fagaðīla?
check.INF this.ACC by professional
‘Ohhhh not good . . . but can’t you talk to the landlord and have this checked by a
professional?’14
c. . . frekar en að látu stjórnaf landinu af einhverjum samtökum . . .
rather than to let.INF rule.INF country.the.DAT by some association
‘. . . rather than have the country ruled by some association . . . ’15
d. . . það á ekki að látu stjórnaf landinu af
EXPL ought not to let.INF rule.INF country.the.DAT by
fjármálastofnunum . . .
financial.institutions
‘. . . we ought not let the land be ruled by financial institutions . . . ’16
Numerous similar examples can be found, and speakers generally find at least some of them
acceptable.17 The possibility of by-phrases suggests that there is a VoiceP layer, introducing an
external argument role that they can identify. Recall from the discussion of (5a) and (6a) that by-
phrases cannot, on their own, introduce agents. The same is true in Icelandic, as illustrated by
(14). (See section 4.4 for discussion of the -st marker.)

(14) *Svona gluggar opna-st af fagaðīla.
such windows open- ST by professional
Intended: ‘Such windows are opened by a professional.’
We will discuss below why by-phrases are acceptable in (13) but not (12). For now, we simply
point out that the possibility of by-phrases suggests the presence of a VoiceP.

4.2 Instrument Phrases
As discussed by Bruening (2013), instrumentals are also diagnostic of VoiceP. They tend, for
example, to be banned from the same environments as by-phrases. Instrument phrases turn out
to be grammatical in Icelandic ICs, as illustrated in (15).

(15) a. Jón lét mála húsíð með mjög litlum penslum.
Jón let.PST paint.INF house.the.ACC with very little paintbrushes
‘Jón had people paint the house with very small paintbrushes.’

17 While not all speakers find (13a–d) to be perfect, all speakers we asked found them to be more acceptable than
(12) with af Jóni.
These instrument phrases clearly modify the actions of the implicit agent. Whoever is painting the house (not Jón) is using the small paintbrushes; whoever is lighting it up (not ég ‘I’) is using large floodlights. Whoever is doing the stabbing is using the needles. As with by-phrases, the availability of instrument phrases modifying the actions of an agent suggests the presence of a VoiceP layer representing such an agent.

4.3 Transitivity Requirement

Another possible reason to think that the embedded verb phrase in Icelandic ICs is a VoiceP, and not just a vP, involves a transitivity constraint on the construction: the embedded verb phrase must have an external argument. Unaccusatives and transitives are in principle structurally identical up to the level of vP; it is the VoiceP layer that encodes the distinction. Verbs that cannot take an external argument, such as unaccusatives (whether their sole argument is expressed or not) or dative subject verbs (whether the dative subject is expressed or not), are not possible.

(16) a. *Þær létu koma (fangana).
   they.NOM let.PST arrive.INF (prisoners.the.ACC)

b. *Þær létu fölna (blómin).
   they.NOM let.PST wilt.INF (flowers.the.ACC)

c. *Ég létt líka (mér) tvær bækur.
   I.NOM let.PST like.INF (me.DAT) two books

d. *Hún laetur líða (honum) illa.
   she.NOM lets.PRS feel.INF (him.DAT) badly

Note that all of these sentences are in principle grammatical if the argument shown in parentheses is moved to the left of the embedded verb. However, this would not be an IC, and there would be no implicit argument. It would simply be an ordinary causative, with all arguments expressed and with the higher one moving to the edge of the lower VoiceP or vP.

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20 This does not imply that the causative meaning of a transitive is added by Voice; either causative meaning is present in the unaccusative, as argued by Schäfer (2012b) and others, or the presence of Voice can affect the interpretation of v, as argued by Wood and Marantz (2017).
Further evidence of the external argument restriction comes from verbs that may be transitive or unaccusative/anticausative.

(17) a. Þær dýpkuðu holuna.
    they deepened hole.the.ACC
    ‘They deepened the hole.’

b. Holan dýpkaði.
    hole.the.NOM deepened
    ‘The hole deepened.’

c. Þær létu dýpka holuna.
    they let.PST deepen.INF hole.the.ACC
    ‘They made someone deepen the hole.’ /* ‘They made the hole deepen.’

A verb like dýpka ‘deepen’ can be transitive or unaccusative/anticausative. However, when used in the IC construction, it is unambiguously understood as transitive.22

The fact that an external argument is required suggests the presence of VoiceP. Previous work accounted for this restriction through a process of “projection compounding” (Taraldsen 1984, Platzack 1986), which said that when the verb ‘let’ and the embedded verb combine as a kind of semantic compound, they must have the same argument structure grid. However, in current theory the status of such /H9258 -grids is dubious at best, and the effects of processes like projection compounding are generally derived through independent means. For example, Wurmbrand (2015) accounts for argument sharing in restructuring configurations by proposing that a Voice head in the embedded clause raises first to the matrix verb and then to the matrix Voice head. This complex head then must share a single external argument. Such a process cannot be extended to ICs, because although the embedded and matrix verbs must each have an external argument, the external arguments must be distinct, not identical.

Similarly, Lundin (2003) proposes that the external argument requirement in Swedish ICs (which are parallel to Icelandic ICs in the relevant respects) follows from the behavior of the light verb as an “agent splitter.” In her analysis, ‘let’ is the realization of the external-argument-introducing head (Voice for us, v for her), and it “splits” the agency of the main verb as described above. As a result, it is only compatible with verbs that take an external argument to begin with. Here, however, the details of how agent splitting works matter. To truly imply the causee, Lundin’s analysis requires that the AGENT role be stored with the lexical verb, not “severed” onto the Voice head, as has generally been assumed following Kratzer (1996). If the AGENT role is stored with the verb, then the Voice/v head realized as ‘let’ must have access to this information and must discard the DOER half of the AGENT role. It is not clear what mechanism or interpretive process would do this.23

22 Exactly like the argument in parentheses in the examples (16a–d), holuna ‘the hole’ can precede dýpka ‘deepen’ in (17c) and get the unaccusative reading; however, this is an ordinary causative, with the internal argument moving to the edge of the lower VoiceP or VP.

23 Below, we will integrate Lundin’s (2003) agent-splitting idea into our proposal, in a way that does not require the AGENT role to be stored with the lexical verb.
An alternative conception of agent splitting would be to say that ‘let’ reflects a Voice head with a special interpretation. The AGENT role is stored not with the verb, but with Voice, and a special Voice head (realized by ‘let’) can introduce just the INITIATOR half of the AGENT role. Only verbs compatible with an AGENT will be compatible with an INITIATOR, accounting for the transitivity requirement. However, this version of the analysis predicts that unaccusative variants of alternating verbs should allow an unaccusative reading in sentences like (17c). These verbs allow an AGENT, but they do not require one, so they should not require a DOER either. The Voice head could project an INITIATOR role (rather than a full AGENT role), but nothing forces the reading that there is a DOER causee. There is no reason that an initiator cannot indirectly cause an event without an agent. This is in fact the reading that is found in a sentence like She caused the vase to break (indirectly, by insisting that it be hung from the ceiling by dental floss). Thus, the external argument requirement cannot be accounted for simply by appealing to the fact that lāta ‘let’ introduces an external argument and therefore can only occur with vPs compatible with such an argument. The implication of an embedded external argument is forced.

In contrast, according to our proposal the external argument requirement is straightforward: ICs are built by stacking a VoiceP directly on top of another VoiceP, which ultimately leads to the IC reading (in a manner discussed in more detail below). Thus, the IC reading would not arise in the absence of an embedded external argument. At this point, the embedded Voice head could be either a passive or a mediopassive (“middle”) Voice, with an implied external argument as part of the semantics, or an active Voice with a silent causee. We next show that it is not a mediopassive/middle Voice, as proposed for Georgian by Nash (2017), before turning to the question of active versus passive.

4.4 Verb Stem Morphology

A final consideration in favor of an embedded VoiceP involves the morphological form of the embedded verb. In Icelandic, alternations between transitives and unaccusatives are often marked with stem morphology. Consider (18)–(20).

(18) a. Skipstjörinn hefur sökkt skipinu.
captain.the.NOM has sunk.TR ship.the.DAT
‘The captain has sunk the ship.’
b. Skipið hefur sokkið.
ship.the.NOM has sunk.INTR
‘The ship has sunk.’

(19) a. Skipstjörinn hefur brotīð glasīð.
captain.the.NOM has broken.TR glass.the.ACC
‘The captain has broken the glass.’
b. Glasið hefur brotnað.
glass.the.NOM has broken.INTR
‘The glass has broken.’
(20) a. Kennarinn hefur **fellt** hana á prófinu.
   teacher.the.NOM has failed.TR her.ACC on test.the
   ‘The teacher has failed her on the test.’

   b. Hún hefur **fallið** á prófinu.
   she.NOM has failed.INTR on test.the
   ‘She has failed the test.’

Various linguists have proposed that this morphology marks the presence or absence of a Voice head (Schäfer 2008, 2012a, Pitteroff and Alexiadou 2012, Pitteroff 2014, 2015, Wurmbrand 2015) or the distinction between a transitive and an unaccusative Voice head (Wood 2015). Note that passives take the “transitive” form, indicating the presence of a Voice head in passives, as is standardly assumed.24

(21) a. Skipinu var **sökt** / *sokkið** af skipstjóranum.
   ship.the.DAT was {sunk.TR / *sunk.INTR} by captain.the
   ‘The ship was sunk by the captain.’

   b. Glasið var {brotið / *brotnað} af skipstjóranum.
   glass.the.NOM was {broken.TR / *broken.INTR} by captain.the
   ‘The glass was broken by the captain.’

   c. Barnið var {fellt / *fallið} á prófinu af kennaranum.
   child.the.NOM was {failed.TR / *failed.INTR} on test.the by teacher.the
   ‘The child was failed on the test by the teacher.’

Like actives and passives, ICs take the transitive form.25 This state of affairs follows straightforwardly on the view that there is a Voice head in the embedded clause.

(22) a. Ég létt {brjóta / *brotna} rúðuna.
   I.NOM let.PST {break.TR / *break.INTR} window.the.ACC
   ‘I made (someone) break the window.’

   b. Ég létt {fella / *falla} hana á prófinu.
   I.NOM let.PST {fail.TR / *fail.INTR} her.ACC on test.the
   ‘I made (someone) fail her on the test.’

To maintain the bare vP analysis, one would have to say that the stem morphology is dependent on the higher Voice head. This, however, faces some challenges. First, the verb does not even form a complex head with the single Voice head, which is realized as ‘let’, and readjustment

24 These facts also support the view of Bruening (2013) in particular, where the passive Voice head has the same featural makeup as an active Voice head: both have selectional features selecting for a VP and an NP. In actives, an NP merges to check the selectional N-feature. In passives, the Pass(ive) head selects for a VoiceP with an unchecked N-feature, so a specifier is never merged. See also Schäfer 2017:147n15.

25 We do not show the verb ‘sink’ here, since it does not make the transitive/intransitive distinction in the infinitive.
rules or stem suppletion rules generally cannot be triggered by one M(orphological)-word onto another. Second, there is a problem with locality: however the alternations are done, the verb stem would have to “see” past its own vP, and past the higher vP, to the presence of Voice. This would require the lower verb stem and higher Voice head to be in the same phase or Spell-Out domain (Embick 2010a,b, 2013). However, there are no other effects of this locality: the interpretation is totally predictable and compositional, for example. Moreover, Ingason and Wood (2017) provide independent evidence that vP complements in Icelandic ICs do in fact form their own phase boundary.26 Combined with other evidence in this section, the verb stem morphology seems to point to the conclusion that there is some Voice head in the embedded verb phrase of Icelandic ICs.

The morphological form of the embedded verb also shows that Icelandic ICs are not built from a middle Voice head in the sense of Doron (2003, 2015) (see also Alexiadou and Doron 2012, Alexiadou, Anagnostopoulou, and Schäfer 2015), as proposed for Georgian by Nash (2017).

The above stem alternations are not a realization of a middle Voice head, since one of the characteristics of middle Voice is that it has not only anticausative readings (as shown above), but also reflexive, reciprocal, dispositional middle, and mediopassive readings. The above forms have none of these other readings.

The closest candidate to middle Voice in this sense is the -st morpheme in (23b).

(23) a. Guðrún opened window.the.ACC
    ‘Guðrún opened the window.’
    Guðrún.NOM

b. window.the.NOM opened-ST (*by Guðrún)
    ‘The window opened (*by Guðrún).’

This marker does have some reflexive, reciprocal, and dispositional middle readings (Ottósson 1986, 1989, H. Á. Sigurðsson 1989, Anderson 1990, Kissock 1997, Wood 2014, 2015).27 However, middle Voice is not the only way to derive this collection of readings, since reflexive pronouns and clitics can be shown to do the same (see Schäfer 2008, 2012a, 2015). Icelandic -st has been argued to be an argument clitic rather than a verbal head (see Wood 2015:chap. 2 for thorough discussion, but also Eythórrson 1995, Kissock 1997, Svenonius 2005, 2006, and H. Á.

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26 This in itself is evidence against Lundin’s (2003) analysis. For Lundin, the sentences Hún skal byggja hús ‘She shall build a house’ and Hún lét byggja hús ‘She made (someone) build a house’ (or its Swedish equivalent) have the same tree geometry and would thus have the same number of phase boundaries. Ingason and Wood (2017) provide evidence that an extra phase boundary is present between T and the embedded verb in the latter sentence that is not present in the former.

27 The dispositional middle reading is the one most commonly associated with generic middles in English, like This book reads easily; here, the verb describes a dispositional property of the subject. See Lekakou 2005 for detailed discussion, and Menéndez-Benito 2013 for general discussion of dispositional readings.
Sigurðsson 2012). Moreover, its reflexive and reciprocal uses are actually quite restricted (Wood 2014, 2015), and, as shown above, it does not generally have the option of a passive reading.28

These considerations show that Icelandic ICs are not built from a middle Voice head. First, Icelandic arguably has no middle Voice head in this sense. If Icelandic does not have a dedicated middle Voice head, then of course such a Voice head cannot be involved in deriving ICs. Second, even if Icelandic does have a middle Voice head, then it would be the -st morpheme that expresses it (see footnote 29). It would then be straightforward to verify that a middle Voice head is not involved in building ICs, since the -st morpheme is nowhere to be found in ICs. We thus conclude that Icelandic ICs involve a Voice head, but not a middle Voice head. In the next section, we will argue that it is also not a passive Voice head.

5 A Silent External Argument

Given the conclusion of the previous section, we might consider analyzing the embedded Voice head as passive, as in Pitteroff’s (2014) analysis of similar constructions in German. This would in principle be compatible with the discussion so far. Passives allow by-phrases and instrument phrases, must have an external argument, and, as we have shown, yield transitive stem forms of the verb. In fact, by-phrases are often taken to be one of the defining features of the passive, so the possibility of by-phrases might lead one to consider the idea that the embedded Voice head is passive to be the null hypothesis at this point.29

However, there are reasons to think that in fact the construction is more “active” than that, with a silent, syntactically projected argument in the causee position. In this section, we will first present the arguments for thinking that there is something there. These include (a) restrictions on the availability and nature of (the above-mentioned) agentive by-phrases; (b) the impossibility of A-moving the embedded object when lát ‘let/make’ is passivized; (c) the possibility of explicitly recovering the implicit agent under sluicing; (d) the acceptability of indirect causatives formed with verbs that do not normally passivize. In addition, we will argue that the availability of by-phrases does not preclude a more “active” analysis in principle. After establishing that some kind of argument is there, we will turn to the nature of that argument and propose that it is a φP, as

28 Passive readings are available when the verb that -st cliticizes to cooccurs with a restricted set of modals, and with a very limited set of perception verbs, such as sjá ‘see’, heyr ‘hear’, and finna ‘find’ (Ottósson 1986, Wood 2015). Even with the latter cases, there is generally a modal reading in the passive use. This is not the general picture we find in languages with a dedicated middle Voice head.

29 One might object that the passive analysis is a nonstarter because there is no passive morphology in Icelandic ICs (just as there is no middle morphology, as discussed in the previous section). However, as indicated in the structures in (7), passive morphology in languages like Icelandic is generally understood as not expressing passive Voice, but attaching on top of it. For example, Bruening (2013) argues that a Pass(ive) head selects for a Voice head that normally requires a specifier. Embick (2003, 2004) argues that passive is derived when an Asp head attaches on top of the external-argument-introducing Voice head (v[AG] for Embick). So while middle voice morphology is generally a part of the VoiceP, it is reasonable to propose, as, for example, Pitteroff (2014) does for German, that a passive VoiceP could occur without the verb’s carrying the participial morphology characteristic of the passive.
in Legate’s (2014) analysis of “grammatical object passives.” The result is that although the structure is in a sense syntactically active, it shares various properties with canonical passives—hence our use of the term quasi-active.

5.1 The Nature of the By-Phrase

Earlier, we noted that by-phrases are sometimes available in Icelandic ICs and that this suggests the presence of a VoiceP layer. It may seem to suggest that this VoiceP layer must be a passive VoiceP layer. After all, that would account for all the previous facts, including the fact that the implicit argument is silent in the first place. However, by-phrases are not as closely tied to passives as is often thought, and their availability does not preclude a structure with a syntactic external argument. We do agree that by-phrases diagnose Voice, but they do not unambiguously diagnose passive.30

We cannot ignore the fact that there is still a big difference between, for example, German, which allows definite by-phrases (e.g., ‘by John’) in ICs quite freely, and Icelandic, which does not. In Icelandic, by-phrases are subject to somewhat gradient restrictions in ICs. Definite DPs are generally unacceptable, as shown in (24a). Indefinite DPs are better, as shown in (24b). Even indefinite DPs improve if the whole clause is impersonal or generic, as shown in (24c).31

   he.NOM let.PST repair.INF car.the.ACC by mechanic.the
   Intended: ‘He had the car repaired by the mechanic.’

b. ?Hann lét gera við bílinn af einhverjum hraðilegum bifvélavirkja.
   he.NOM let.PST repair.INF car.the.ACC by some terrible mechanic
   ‘He had the car repaired by some terrible mechanic.’

c. Það væri hraðilegt að láta gera við bílinn af einhverjum hraðilegum
   it were terrible to let.INF repair.INF car.the.ACC by some terrible
   mechanic
   ‘It’d be terrible to have the car fixed by some terrible mechanic.’

What is this telling us? By itself, it reminds us that there is still an important difference between German-type ICs and Icelandic-type ICs, so we do not want to make the analyses of

30 A note on terminology is warranted here. The above is true if we take a defining characteristic of the passive to be the nonprojection of a thematically interpreted external argument in the syntax. However, in E. F. Sigurðsson 2017 the term passive is viewed more broadly, including any construction where the external argument is existentially closed over, whether that argument is projected in the syntax or not. It is possible that by-phrases diagnose passive in this broader sense of the term.

31 (24) reflects the judgments of the first author. Some speakers do not find the constructed examples (24b–c) to be better than (24a), and some do not find a contrast between (24b) and (24c). As mentioned in footnote 17, however, all speakers find some examples of the sort in (24b–c) to be improved (over examples like (24a)) or perfect.
ICs in these languages too similar.\textsuperscript{32} It also shows that the embedded structure is distinct from Icelandic passives. Beyond that, however, the nature of the restrictions on by-phrases shows that the structure could be closer to an active: there are other syntactically active or quasi-active constructions that allow by-phrases with very similar restrictions. In this section, we will review two such constructions: English tough-constructions and Icelandic impersonal modal constructions.

To be clear, there are also some obviously nonactive constructions that have similar effects, so examples like (24a–c) do not alone argue that the embedded construction is active. But given that they suggest a VoiceP layer and that there are other reasons to assume a syntactically present implicit causee, it is telling that there are other constructions with syntactically present implicit arguments that allow by-phrases in similar circumstances.

5.1.1 English Tough-Constructions

The infinitives of English tough-constructions are widely considered to be active constructions with a PRO subject. In the standard analysis of the tough-movement derivation (going back to Chomsky 1977), a null operator moves to Spec,CP to be bound by the overt subject, which is base-generated in the matrix clause.

\begin{align}
(25) & \quad \text{a. It is tough } [\text{CP } \text{C } [\text{TP } \text{PRO}_{\text{ARB}} \text{ to read such books}]].
\vspace{0.5em}
& \quad \text{b. Such books} \, i \text{ are tough } [\text{CP } \text{O} \, i \, \text{C } [\text{TP } \text{PRO}_{\text{ARB}} \text{ to read } [\text{O} \, p]]].\
\end{align}

Alternatively, the matrix subject is base-generated as the object and moves to the subject position, a derivation that raises some problems, but perhaps solvable ones (Obata and Epstein 2008, 2012, Hicks 2009, Richards 2010, Messick 2012, E. F. Sigurðsson 2016). Either way, there is a general consensus that the embedded infinitive clause of a tough-construction is active, with a silent (PRO) subject. As we would expect, by-phrases are generally unacceptable.

\begin{align}
(26) & \quad \text{That book is tough to read (}\ast \text{by Jessie).}
\end{align}

However, it turns out that by-phrases can improve quite dramatically, under conditions very similar to those noted above: if the matrix subject or the DP in the by-phrase is indefinite or generic (making the overall sentence more generic), the by-phrase improves.\textsuperscript{33}

\textsuperscript{32} Below, we will propose that the IC meaning only arises when the embedded external argument is maximally underspecified. Definite DPs are at odds with this requirement. Indefinite DPs are typically possible when the by-phrase plays a role in characterizing the nature of the event and its result, but not when it plays a role in identifying any specific participant(s), in a way that is reminiscent of the restrictions on by-phrases with adjectival passives (Alexiadou, Gehrke, and Schäfer 2014, McIntyre 2015). See footnote 66.

\textsuperscript{33} These factors might be relevant here for reasons similar to those relevant for adjectival passives, the impersonal modal construction, and even ICs. Tough-constructions do not refer to a specific event, so adding a by-phrase denoting a specific entity may clash with their meaning, and is at odds with the semantic relation established among the theme, the state denoted by the predicate, and the verb. Similarly, a by-phrase denoting a specific entity may be at odds with the modal function of the impersonal modal construction discussed in section 5.1.2, where picking out possible worlds with generic events/results is what is relevant. We set aside for future research the characterization of these factors and whether they can be united across constructions.
(27) a. *That book is easy to read by Jessie.
   b. ??Such books are easy to read by anyone.
   c. ?Books like that are generally easy to read by people who know the field.

These examples may still not be perfect, but the attested examples in (28) are perfect for many
speakers we have consulted, as well as the second author of this article.34

(28) a. Classroom teachers have historically been easy to ignore by those who are working
   beyond the classroom.
   b. Not to mention that polls are so easy to manipulate by those who know how.
   c. Most of these are relatively easy to identify by anyone with practice.

(29) a. . . . in which individuals become easy to manipulate by those in power.35
   b. . . . most of these being fairly simple to properly identify by anyone with practice.36

See E. F. Sigurðsson 2015 for similar examples with Icelandic *tough*-constructions.37

What should we conclude from facts like those in (27)–(29)? We do not think that the right
approach would be to conclude that *tough*-constructions can be passive under certain gradient,
hard-to-define circumstances. Rather, we would suggest that *by*-phrases can occur with some
syntactically active constructions under such gradient, hard-to-define circumstances. We do not
mean to imply, in any way, that these circumstances are beyond the scope of formal analysis;
the ingredients seem relatively consistent, and we suspect that the improvement comes from
manipulations that make the semantic representation more like the semantic representation of a
passive.38 The point here is that the overall picture of *by*-phrases in Icelandic ICs is consistent
with the view that there is a syntactically projected argument in the embedded Spec,VoiceP.
Another example that points in this direction is the Icelandic impersonal modal construction,
which we turn to next.

5.1.2 Impersonal Modal Construction

The Icelandic impersonal modal construction (IMC) is
available with about 4–6 modal verbs. It has been argued to be an active, null subject construction

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34 Examples (28a–c) were retrieved via a Google search on 30 December 2011. (28a) could still be found as of 25
July 2019 at https://tinyurl.com/vme5fuy, but Google searches no longer return (28b–c). The speakers we consulted
about (28a–c) include many English speakers at venues where this work has been presented, as well as Richard Kayne,
Alec Marantz, Stephanie Harves, and Neil Myler. (29a–b) were added after we discovered that (28b–c) are no longer
online, and are perfect for the second author.


37 English translations of the examples in E. F. Sigurðsson 2015 are acceptable to the second author (although a
reviewer finds them unacceptable).

(i) Hate speech is easy to express in oral or written form by anyone at all.

(ii) These matters are not easy to solve by one state alone.

38 For example, if the event is made more generic, the PRO (or perhaps $\phi$P) external argument is less likely to refer
to a specific individual and has an indefinite, existential interpretation similar to the implicit argument of the passive.
(The implicit argument of a passive can be definite, in a sense, when it is linked to a definite *by*-phrase.) Developing
this suspicion goes beyond the scope of the present article, however.
with a generic pro subject (H. Á. Sigurðsson and Egerland 2009) or a φP subject (E. F. Sigurðsson 2017).

(30) a. Nú pro/φP má opna gluggana.
   now may open.INF windows.the.ACC
   ‘Now one may open the windows.’

b. Nú pro/φP þarf að borda fisk.
   now needs to eat.INF fish.ACC
   ‘Now one has to eat fish.’

As expected from this analysis, by-phrases are generally unacceptable. However, as before, they improve if they are generic and indefinite, and attested examples of that sort can be found. (Heaviness may also improve them; see E. F. Sigurðsson 2017:289–290.)

(31) a. Það þarf að rannsaka þetta betur (?af Jóni).
   expl needs to investigate.INF this.ACC better (?by Jón)
   Intended: ‘This needs to be studied further by Jón.’

b. Það þarf að rannsaka þetta betur (af fræðimönnum).
   expl needs to investigate.INF this.ACC better (by scholars)
   ‘This needs to be studied further by scholars.’
   (cf. E. F. Sigurðsson 2012)

Again, this should not lead us to conclude that IMCs are passives. Rather, IMCs are telling us something about the licensing of by-phrases—namely, that by-phrases can occur with syntactically active (or quasi-active) constructions under certain circumstances.

5.1.3 Summary: The Nature of the By-Phrase  We hasten to add that other constructions have similar constraints on by-phrases and are not (as far as we know) active constructions. Marcel Pitteroff (pers. comm.) reminds us that German impersonal passives have similar constraints, and a reviewer points out that Greek passives do too (see Alexiadou, Anagnostopoulou, and Schäfer 2015:121–122). Ability adjectives do as well, as shown in (32) (Kayne 1981, Fabb 1984, Roeper 1987, Oltra-Massuet 2010), as do passives of certain Icelandic psych-verbs, like elska ‘love’, as shown in (33).

(32) a. *This is readable by Jessie.
   b.  This is readable by anyone with eyes.

(33) María er elskuð {*af Guðrúnu / af öllum  
   María.NOM is loved  {*by Guðrún.DAT / by everybody
   ‘María is loved {*by Guðrún / by everybody’}
   (cf. Thráinsson 2007:253)

Arguably, none of these constructions are “active” the way that tough-constructions and IMCs are. So we do not claim that the paradigm presented above is a morphosyntactic signature of active constructions with by-phrases.
Rather, the conditions on by-phrases tell us several things. First, they remind us that while by-phrases diagnose a VoiceP layer, they do not unambiguously diagnose a passive construction. Second, they cast doubt on the passive analysis, since that would leave us with no account of how German and Icelandic differ. One may be convinced that there is an embedded VoiceP, but that does not mean that the issue with by-phrases is solved. Finally, when combined with further evidence that an embedded causee is present in the syntax, they fall in plausibly with the other active or quasi-active constructions that occur with a restricted kind of agentive by-phrase.

5.2 Impersonal Passives

A second reason to think that the embedded construction has an argument in Spec, VoiceP comes from impersonal passives. Consider the four logically possible structures under consideration for the analysis of ICs. (Here, for the active and passive structures, we abstract away from whether there is a v head in the matrix clause, since this is not strictly relevant for the present point.)

(34) Bare vP 1

```plaintext
VoiceP
  SUBJ
  Voice
  'let'
  vP
    v
    'build'
    DP
      'the house'
```

39 We omit PassP in (36), following Pitteroff (2014), under the assumption that Pass would be the locus of passive morphology, but that a specifierless passive Voice head is nevertheless present. See Pitteroff 2014:chap. 7 for detailed discussion of this point.
(35) *Bare vP 2*

```
VoiceP
  SUBJ
    Voice
      vP
        v
          'let'
        vP
          v
            'build'
          DP
            'the house'
```

(36) *Passive*

```
VoiceP
  SUBJ
    Voice
      (vP)
        (v)
          'let'
        VoiceP
          VoicePASS
            vP
              v
                'build'
              DP
                'the house'
```
Now suppose we passivize ‘let’ in the matrix clause. Under the bare vP and passive analyses, we expect one of two things. First, the resulting sentence could be ungrammatical (some kind of “voice matching” failure, or a general problem with passivizing ‘let’). This is what happens in German, Norwegian (38), and Swedish ICs.40

(38) *Det ble latt løslate fangene.
   it was let release.INF prisoners.the
   Intended: ‘Someone let someone release the prisoners.’
   (Taraldsen 1984:5)

Second, if passivization succeeds, the embedded object becomes nominative and raises to become the subject, as in German restructuring passives (Wurmbrand 1998).

(39) a. . . weil Hans den Traktor zu reparieren versuchte.
   . . . because Hans.NOM the.ACC tractor to repair.INF tried
   ‘. . . because Hans tried to repair the tractor.’

b. Der Lastwagen und der Traktor {wurden / *wurde} zu reparieren
   the.NOM truck and the.NOM tractor {were / *was} to repair.INF

40 Lundin (2003:135) claims that the impossibility of passivizing ‘let’ is a straightforward prediction of her analysis in (34), a claim echoed in other work on light verbs, such as Folli and Harley 2013. In fact, however, the failure of passivization is not so straightforward. As mentioned above, the standard view is that in languages like English (with periphrastic, participle-based passives), a Passive head attaches outside of a specifierless VoiceP. There is no reason Passive could not attach outside of the VoiceP in (34). One could say that ‘let’ realizes a Voice head with a filled specifier, to account for the impossibility of passives, but this is an analytical stipulation, not something that follows from the claim that a light verb realizes a Voice head.
versucht.
tried
‘Someone tried to repair the truck and the tractor.’
(McFadden 2004:339)

Wurmbrand (1998) argues precisely for a bare vP complement structure in the case of (39a–b). As expected under that view, when ‘try’ is passivized, the object of ‘repair’ is promoted to the nominative subject.

However, we find neither of these results in Icelandic. What we find is that impersonal passives are possible, but the embedded DP stays accusative and cannot raise to the subject position. This is shown in (40).41

(40) a. Það var látið byggja húsið.
   EXPL was let.PASS build.INF house.the.ACC
   ‘Someone made (someone) build the house.’

b. Þá var látið skera í tré stipil eða félagsmerki fyrir almanakíð.
   then was let.PASS carve.INF in tree stamp.ACC or badge.ACC for calendar.the
   ‘Then someone made (someone) carve a stamp or badge for the calendar into a tree.’42

c. Auk þess var þessu hagað þannig, að til þess að fá sem
   in.addition was this arranged in.such.a.way that in.order.to get as
   fullkomnast heildarsamræmi í matið, var látið gera
   the.most.perfect whole.consistency in evaluation.the was let.PASS do.INF
   mat á hverjum stað fyrir sig . . .
   evaluation.ACC at each place for itself
   ‘This was, in addition, arranged in such a way that in order to get as perfect consistency into the evaluation as possible, someone made (someone) do an evaluation in each place . . .’43

Under the quasi-active analysis—and only under this analysis—this is exactly what is expected; see (41).44 Since there is an argument in the embedded Spec,VoiceP, the embedded object is predicted to stay accusative.45

41 Some speakers find the examples in (40), even the attested ones, to be degraded; however, others find them acceptable, and the attested ones were produced by native speakers. Halldór Sigurðsson (pers. comm.) suggests that (40a) becomes acceptable if the context is made clearer with more material in the sentence, as in (i).

(i) þess vegna var látið byggja nýtt hús handa innflytjendum.
   for.this.reason was let.PASS build.INF new house.ACC for immigrants
   ‘For this reason, someone made (someone) build a new house for immigrants.’

43 https://www.althingi.is/altext/raeda/?lthing/H11505/70&rnr/H11505/3516 (accessed 3 September 2019).
44 In tree (41), we show φP moving to the subject position, as pronouns do, but nothing hinges on this, and all the facts still follow if φP remains in situ.
45 Here we assume a dependent case approach to morphological accusative (Marantz 1991, McFadden 2004, Schiffr 2012a, E. F. Sigurðsson 2017, Wood 2017), but a theory where transitive Voice assigns accusative makes the same prediction in this case.
That the argument in the embedded Spec, VoiceP conditions accusative case, moves to Spec, TP, and prevents the embedded object from moving is supported by the fact that when the causee is overt, in ordinary causative constructions, this is exactly what we see: the overt causee in (42b), *ég*, moves to the subject position (as there is no syntactically projected implicit argument to block its movement), prevents the movement of the embedded object to the subject position, and is nominative (conditioning accusative case on the embedded object).

(42) a. Hún lét mig keyra þílinn.
   she.NOM let.ACT.PST me.ACC drive.INF car.the.ACC
   ‘She made me drive the car.’

   b. Ég var láttinn keyra þílinn.
   I.NOM was let.PASS drive.INF car.the.ACC
   ‘I was made/forced to drive the car.’

Note, in contrast, that while German does not allow passivization of ‘let’ at all, it can, according to Pitteroff (2014, 2015), form an anticausative of ‘let’, which then allows the embedded object to get nominative case and move to the matrix subject position. Vikner (1987) discusses what appears to be the same construction in Danish, and gives essentially the same kind of analysis that Pitteroff defends for German. In Pitteroff’s analysis, the reflexive *sich* merges in the matrix VoiceP to eliminate the matrix external argument position (Schäfer 2008), freeing the embedded theme to move into the matrix clause; this is shown in (44). (See Schäfer 2008, 2012a and Pitteroff 2014 for discussion of how the theme moves past the reflexive and gets nominative case.)

(43) a. Das Buch lässt sich (von kleinen Kindern) gut lesen.
   the.NOM book lets REFL (by small children) good read
   ‘The book can be read easily (by small children).’
b. Das Buch lässt sich leicht von einem Antiquar beschaffen.
   the.NOM book lets REFLEX easily by an antiquarian obtain
   ‘The book can be obtained easily by an antiquarian.’
   (Pitteroff 2014:47)

(44)

The Icelandic data in (40) and the German data in (43) do not form a minimal pair, since in German we are looking at anticausativization whereas in Icelandic we are looking at a passive. But the data show the kind of contrast we expect. If the matrix external argument is removed, either by passivization or by anticausativization, then the embedded object should become nominative—unless there is another embedded argument. We view this as a strong argument in favor of a nonpassive analysis, and one with a VoiceP in the complement of the causative verb.46

5.3 Sluicing

Another reason to think that there is a syntactically projected null causee comes from a kind of ellipsis known as sluicing. Consider the sentence in (45).

46 The embedded predicate in the Icelandic IC is similar in some ways to the Icelandic “new impersonal passive” (NIP) construction, which has an accusative object and arguably has a silent external argument. Indeed, Legate (2014) and E. F. Sigurðsson (2017) argue in some detail for an analysis of the NIP that involves a φP external argument, just as we are proposing for ICs here. ICs, however, are more widely accepted than the NIP, and the analysis of the NIP is controversial (for a range of views, see Sigurjónsdóttir and Maling 2001, Maling and Sigurjónsdóttir 2002, 2012, 2013, 2015, Barðdal and Molnár 2003, Maling 2006, Gísladóttir 2007, Eythórsson 2008, Jónsson 2009, H. Á. Sigurðsson 2011, Árnadóttir, Eythórsson, and E. F. Sigurðsson 2011, Schäfer 2012a, Árnadóttir and E. F. Sigurðsson 2013, Ingason, Legate, and Yang 2013, Legate 2014), so we refrain from detailed discussion of the connection. Importantly, E. F. Sigurðsson (2017) also argues that there are a number of constructions in Icelandic that would qualify as quasi-active, in that they have a φP external argument but a passive-like interpretation.
(45) Kónurinn lét myrða hetjuna, en ég veit ekki hvern.

‘The king made (someone) murder the hero, but I don’t know who.’

(45) provides striking evidence for a syntactically active causee for speakers who accept it. While verb phrase ellipsis may in some cases allow voice mismatching, sluicing does not (Merchant 2013). Icelandic is no exception. Consider the sentences in (46), which form near-minimal pairs with (45), except that we know the embedded clause is passive.

(46) a. Hún taldi hafa verið veidda marga fiska, en ég veit ekki hvern.

Intended: ‘She believed many fish to have been caught, but I don’t know who.’

b. Hún taldi hetjuna í hafa verið dreppna, en ég veit ekki hvern.

Intended: ‘She believed the hero to have been killed, but I don’t know who.’

That (45) is acceptable for some speakers strongly suggests the presence of a silent causee for those speakers, and other factors may be at play for speakers who reject it.47

5.4 Embedded Verbs That Cannot Passivize

A final argument in favor of a silent causee in Spec, VoiceP, as opposed to an embedded passive structure, comes from the possibility of embedded verb phrases that cannot passivize. For example, the verb finna ‘find’ in (47a) cannot be passivized, as shown in (47b) (Thráinsson 2007:152). However, ICs are possible with finna ‘find’ in this sense, as illustrated by the attested example in (48).48

(47) a. Hún fann slíkan fugl kl. 10 í gær.

‘She found such a bird at ten o’clock yesterday.’

b. Slíkur fugl var fundinn (af henni) kl. 10 í gær.

‘Such a bird was found (by her) at ten o’clock yesterday.’

(48) Hann lét finna slíkan fugl og hafði hann í búí hjá sér, hlustaði á he.NOM let.PST find.INF such bird.ACC and had it in cage by REFL listened to

47 That is, rejecting it is not necessarily evidence against the silent causee analysis.
48 There is some minor speaker variation in the acceptability of finna, but most speakers we consulted found it perfectly fine in ICs, even though it cannot be passivized, and nearly all speakers found at least one of the attested examples in this section perfectly acceptable.
hann daglega og dáði hann mjög.

‘He made (someone) find such a bird and raised/put it in a cage at his place, listened to it daily, and admired it a lot.’

Two more attested examples of finna ‘find’ in an IC are shown in (49); as illustrated in (50), the corresponding passives are unacceptable. Note that in active, perfect constructions, the perfect participle that the passive would be based on is well-formed; see (51). Moreover, the participle in this case (but not necessarily all of the cases below) can also form an agreeing adjectival passive; it is the eventive, verbal passive that is unacceptable.

(49) a. Sjalfrur Al Capone . . . bauðst til að láta finna barnið . . .
      self Al Capone offered for to let.INF find.INF child.the.ACC
      ‘Al Capone himself offered to have (people) find the child . . . ’

b. Dierk Schmäschke . . . brást snöggt við, lét finna skóna og
      Dierk Schmäschke reacted quickly with let.PST find.INF shoes.the.ACC and
      senda þá með hraði til Hamborgar.
      send.INF them.ACC with speed to Hamburg
      ‘Dierk Schmäschke reacted quickly, had the shoes found, and rushed to Hamburg.’

(50) a. *Barnið var fundið (af Al Capone) kl. 10 í gæð.
      child.the.NOM was found (by Al Capone) ten o’clock yesterday
      Intended: ‘The child was found (by Al Capone) at ten o’clock yesterday.’

b. *Skórnir voru fundnir (af Dierk Schmäschke) kl. 10 í gæð.
      shoes.the.NOM were found (by Dierk Schmäschke) ten o’clock yesterday
      Intended: ‘The shoes were found (by Dierk Schmäschke) at ten o’clock yesterday.’

(51) Al Capone hefur fundið barnið.
      Al Capone has found child.the.ACC
      ‘Al Capone has found the child.’

Two other verbs that show this behavior are týna ‘lose’ and annast ‘look after/supervise’. Thus, the attested IC examples in (52a) and (53a) are acceptable, but the corresponding passives in (52b) and (53b) are not, even though the participles (when active) are well-formed morphologically, as shown in (52c) and (53c).

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52 It might be argued that annast ‘look after/supervise’ cannot be passivized only for morphological reasons. It is a deponent -st verb that takes an accusative object, and such verbs generally cannot form personal passives with a nominative subject; the reason seems to be connected with the morphological agreement that generally obtains between passive participles and their nominative arguments (Wood 2015:70–72). However, this account would not apply to any of the other verbs in this subsection. Even the nature of the supposed morphological account is not clear (Wood 2015:72), so until it is, we take the facts in (53) to be a potential problem for the passive analysis.
(52) a. ... rikislögreglustjóri, sem hótaði manni liflátí og lét síðan týna 
... national.police.boss who threatened man execution and let. PST then lose. INF 
gögnun frá vitnum málsins. 
documents.dat from witnesses case. gen 
‘... the national police commissioner, who threatened a man with death and then 
had documents from the witnesses of the case get lost.’ 53
b. *Gögnunum í málinu var týnt. 
documents.the.dat in case.the were lost 
Intended: ‘The documents of the case were lost.’
c. Ríkislögreglustjóri hefur týnt gögnunum í málinu. 
national.police.boss.nom has lost documents.the.dat in case.the 
‘The national police commissioner has lost the documents of the case.’

(53) a. ... skal húsnæðismálastjórn annast eða láta annast allan 
... shall State.Housing.Board.nom supervise.inf or let.inf supervise.inf all 
tæknilegan undirbúning framkvæmda ... 
technical preparation.acc projects.gen 
‘... the State Housing Board shall supervise or have (someone) supervise all tech-
nical preparation of projects ... ’ 54
b. *Tæknilegur undirbúningur framkvæmda var annastur 
technical preparation.nom projects.gen was supervised 
(by State.Housing.Board) 
Intended: ‘Technical preparation of projects was supervised (by the State Housing 
Board).’
c. Húsnæðismálastjórn hefur annast allan tæknilegan undirbúning 
State.Housing.Board.nom has supervised all technical preparation.acc 
projects.gen 
‘The State Housing Board has supervised all technical preparation of projects.’

These mismatches follow straightforwardly from the present account, which takes them to 
be syntactically active, rather than passive, but they are a challenge for an account that derives 
ICs from an embedded passive VoiceP. 55

55 Thus, Pitteroff (2014:89) mentions a verb in German that has been claimed to occur in ICs but not passives, makes 
the point that it is in fact possible in passives, and uses this fact to support the passive analysis.
5.5 Crosslinguistic Variation

The question remains why Icelandic ‘let’ cannot combine with a passive VoiceP, while its counterpart in other languages seems to be able to do so. While we do not have a definitive answer, we speculate that it is related to the generally restricted nature of Icelandic passives. As discussed in detail by Thráinsson (2007:251–257), Icelandic passives generally require the implicit argument to be understood as a volitional agent; there are exceptions to this, but Icelandic is “more strict” (p. 257) in this regard than many other languages. We propose below, however, that the implicit argument of an IC is not a full agent, and that this is a fundamental part of the IC interpretation. It is plausible that Icelandic ‘let’ cannot embed a passive VoiceP because the IC interpretation that this would induce is not compatible with the interpretation of the passive.

Crosslinguistically, then, languages build ICs by making use of the syntactic resources that are independently available to them. The IC interpretation is the result of a particular configuration, as we argue below, and part of that configuration requires an underspecified embedded VoiceP. There are different ways of achieving this. Icelandic has no middle Voice head, and its passive Voice resists the necessary interpretation. However, as we discuss below, it has a number of quasi-active constructions built with a \( \phi P \) in Spec,VoiceP, so this option is available to it for building ICs as well.\(^{56}\)

6 The Nature of the Implicit Argument

All together, the facts discussed in the previous sections support the proposal that in Icelandic ICs there is a silent external argument syntactically projected in the embedded VoiceP. Let us review briefly how we come to this conclusion. First, we find evidence that there is at least a VoiceP layer of some sort (the existence of by-phrases and instrument phrases, the transitivity restriction requiring an external argument and morphologically transitive verb forms). Then we find a variety of indications that there is a silent external argument that is syntactically projected. The nature of the agentive by-phrases that we find reminds us of other examples of active constructions that allow by-phrases. The fact that ‘let’ can be passivized and that the object is not promoted to subject suggests that there is another argument in the structure. The possibility of recovering the causee under sluicing strongly suggests that the embedded Voice cannot be passive, and follows neatly from assuming an active Voice with a null causee in its specifier. Finally, the availability of embedded verbs that cannot passivize follows from this account as well.

All of this, together, suggests that something is there, in the embedded external argument position, but leaves open what that might be. In this section, we turn to the properties of this

\(^{56}\) A reviewer asks if crosslinguistic variation should be derived by differences in selectional rules. It is possible that this plays some role (see, e.g., Pylkkänen 2002, 2008), with such rules stemming from considerations of acquisition. However, ICs are widespread enough that they should be derivable by general principles, and ideally, their availability and properties in individual languages should be derived from the independent availability of syntactic primitives that can be used to build them. Note that we do not attempt in this article to develop a formal typology of ordinary causatives with overt causees; see Pitteroff and Campanini 2013 for some discussion.
embedded subject and propose that it is smaller than a DP—it contains no D-layer—but may be as large as a $\phi$P, a structurally reduced kind of pronoun. To repeat, the structure we propose is as in (54).

\[(54)\]
\[
\begin{array}{c}
\text{VoiceP} \\
\text{DP} \\
\text{hær} \\
\text{‘they’} \\
\text{létu} \\
\text{‘let’} \\
\phi \text{P} \\
\text{Voice} \\
\text{vP} \\
\text{byggja} \\
\text{‘build’} \\
\text{húsið} \\
\text{‘the house’}
\end{array}
\]

Even though the embedded VoiceP may seem active syntactically, the structurally reduced nature of the external argument makes it in many ways more like a passive. The absence of a D-layer has at least two relevant effects.

First, it is the D-layer that “maps an NP predicate to an argument denotation” (Landau 2010:360) (here Landau cites Longobardi 1994), so without such a layer, a $\phi$P cannot saturate a syntactic predicate. Legate (2012, 2014) and E. F. Sigurðsson (2017) argue that $\phi$Ps combine semantically by Restrict, rather than Saturate (see Chung and Ladusaw 2004 on Restrict). Since the $\theta$-role of the embedded VoiceP is not saturated, but is instead restricted by the content of $\phi$P, this $\theta$-role must be existentially closed, much as the external argument of a passive is standardly assumed to be.\(^{57}\) E. F. Sigurðsson (2017) takes existential closure of an external argument to be the defining characteristic of passive constructions. Thus, even though the structure is syntactically active (in that Spec,VoiceP is filled), it is semantically like a passive, due to the structurally reduced nature of the external argument.

Second, Landau (2010) argues that a D-layer is needed in order for an argument to bind an anaphor. Landau explains this requirement on the basis of Reuland’s (2001) Agree-based theory of anaphor binding (Landau 2010:379). According to that theory, an anaphor and its antecedent enter into an Agree relation with an external head (such as T), and the anaphor’s interpretable

\(^{57}\) We follow Harley (2013a) in assuming that the existential closure is brought in as part of the semantics of the causative verb—$v$ for her, (the higher) Voice for us.
features are deleted because they are fully recoverable from the antecedent. The anaphor and antecedent (and the external head) form an A-chain that is effectively interpreted as binding. However, in order for this to work, the anaphor must have a D-feature (otherwise, it would not be able to saturate the argument position of a syntactic predicate); therefore, its antecedent must have a D-feature in order to form an A-chain with that anaphor and be construed as a binding relation.

With this background in place, we will now turn to evidence for the φP nature of the causee. We first discuss secondary predicates, which support the absence of a D-layer, followed by binding effects, which also support the absence of a D-layer but in addition support the presence of something (our φP). We then discuss animacy restrictions and propose that they are tied to the φP-layer. Finally, we turn to the reduced agency of the causee, arguing that this follows from the interpretation of a semantically underspecified argument in a Voice-stacking configuration.

6.1 Secondary Predicates

Ordinary causative constructions in Icelandic allow secondary predicates predicated of the overt causee. (Note that such predicates must agree with the causee in case, gender, and number. We gloss only case here.)

(55) Overt causee: Secondary predicate possible
   a. Við láturn ekki neinn aðstoða börnin okkar {*fullur / ?fullan }.
   we let.PRS not anyone.ACC assist.INF children our {*drunk.NOM / ?drunk.ACC}
   ‘We don’t let anyone assist our children (while he or she is) drunk.’
   b. María lét Guðmund skoða þetta {*préyttur / þreyttan}.
   María let.PST Guðmundur.ACC examine.INF this {*tired.NOM / tired.ACC}
   ‘María made Guðmundur examine this tired.’
   c. Það væri ljótt að láta hann lesa bókina (nakinn).
   it would.be mean to let.INF him.ACC read.INF book.the (naked.ACC)
   ‘It would be mean to make him read the book naked.’

However, in ICs, secondary predicates modifying the implicit causee are impossible.

(56) No overt causee: Secondary predicate impossible
   a. Við láturn ekki aðstoða börnin okkar {*fullur / *fullan }.
   we let.PRS not assist.INF children our {*drunk.NOM / *drunk.ACC}
   ‘We don’t let (people) assist our children (*while the people are drunk).’
   b. María lét skoða þetta {*préyttur / *préyttan}.
   María let.PST examine.INF this {*tired.NOM / *tired.ACC}
   ‘María made (someone) examine this (*tired).’

58 Note that not all speakers that we asked found this sentence fully acceptable, but there was a clear general preference for accusative. This sentence contrasts sharply with the IC in (56b), where secondary predicates are clearly unacceptable.
Note that we cannot just assume that a silent embedded subject rules out secondary predication, since controlled PRO can take a secondary predicate, as illustrated in (57).

(57) a. Mérₐ mislîkar að PROᵢ lesa bækur nakinn.
   me.DAT dislike.PRS to PRO.NOM read.INF books naked.NOM
   ‘I dislike reading books naked.’

b. Það væri leiðinlegt að PROARB lesa bækur nakinn.
   it would.be annoying to PRO.NOM read.INF books naked.NOM
   ‘It would be annoying to read books naked.’

This difference with secondary predicates suggests that we are not dealing with an ordinary silent DP like PRO. As discussed above, however, this is predicted if the nonovert causee is a φP, since it lacks the D-layer needed for it to saturate a predicate.\(^59\)

6.2 Binding Effects

We also noted above that, according to Landau (2010), a D-layer is needed for an argument to bind an anaphor. For Icelandic reflexives, at least two subcases need to be considered: simplex reflexives like sig and complex reflexives like sjálf an sig. In fact, the silent causee cannot bind any kind of reflexive. First, note that simplex reflexives can in principle be construed locally or long-distance. In (58), sig can be bound by the local antecedent hann ‘he’ or the long-distance antecedent hún ‘she’. In ICs, however, only the higher, overt DP can bind the simplex reflexive, as shown in (59).

(58) Húnᵢ hélt að hannᵢ hefði rakað sigᵢj.
   she.NOM thought that he.NOM had shaved REFL.ACC
   ‘She thought that he_{j} shaved her_{j}/himself_{j}.’

(59) Húnᵢ lét φᵢ j raka sigᵢj.
   she.NOM let.PST shave.INF REFL.ACC
   ‘She made (someone) shave her.’

The same holds for possessive reflexives, which can normally be construed locally or long-distance. In ICs, however, only the overt, matrix DP is available as an antecedent.

(60) Konungurinnᵢ lét φᵢ j myrða þrælinn sinnᵢj.
   king.the.NOM let.PST murder.INF slave.the.ACC his.REFL.ACC
   ‘The king_{i} had his_{i} slave killed.’ / *‘The king made someone_{j} kill his_{j} slave.’

\(^59\) See also Eythórsson, Ingason, and E. F. Sigurðsson 2016, 2019 for the Icelandic reflexive passive and H. Á. Sigurðsson 2011 for the “new impersonal passive.”
Complex reflexives can only be bound locally. In (61), *sjálfa sig can be bound by the local antecedent *hún ‘she’, but not by the long-distance antecedent *hún ‘she’.

(61) *Húnı́ hélt að húnı́ hefði gagnrýnt sjálfa sigı̄/j.
    she.NOM thought that she.NOM had criticized SELF.ACC REFL.ACC
    ‘Sheı̄ thought that sheı̄ criticized {herselfı̄ / *herı̄}.’

In ICs, complex reflexives are impossible: the matrix subject is too far away for local binding, and the silent causee cannot bind anything.

(62) *Húnı́ lét i/j gagnrýna sjálfa sigı̄/j.
    she.NOM let.PST criticize.INF SELF.ACC REFL.ACC
    Intended: ‘Sheı̄ made (someone) criticize herselfı̄.’

At this point, one might wonder if the causee is completely inert for binding theory purposes. In fact, it is not. First, the causee serves as a subject for the purposes of closing off the binding domain of the reflexive in (62). If there were no structural embedded subject, we would expect the matrix subject to be a possible antecedent for the reflexive. This is especially so on the analysis in Lundin 2003, where the causative verb is the realization of Voice, and ICs have the same structural size as ordinary transitives.

Moreover, Landau (2010) argues that φP implicit arguments (without a D-layer), while unable to bind anaphors, are able to trigger Condition B and Condition C effects. Indeed, Condition B and C effects seem to be present in ICs. The silent causee cannot be coreferential with the matrix subject or the embedded object.

(63) Húnı́ lét φi/j/k drepa hannı̄.
    she.NOM let.PST kill.INF him.ACC
    a. = ‘Sheı̄ made someone elseı̄ kill himı̄.’
    b. ≠ ‘Sheı̄ made herselfı̄ kill himı̄.’
    c. ≠ ‘Sheı̄ made someoneı̄ kill himselfı̄.’

Reading (b) is unavailable because the silent causee would be bound by the (local) matrix subject. Reading (c) is unavailable because the embedded pronoun would be bound by the local silent causee. Assuming the causee is subject to Condition B accounts for the fact that only reading (a) is available. The same readings apply with an overt pronominal causee.

(64) Húnı́ lét hanaı̄/j/k drepa hanaı̄.
    she.NOM let.PST her.ACC kill.INF her.ACC
    a. = ‘Sheı̄ made someone elseı̄ kill herı̄.’

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60 We thank Alan Munn (pers. comm.) for pointing this out to us.
61 Effects like these are also found in passives, but we have already provided arguments that the embedded VoiceP is not passive.
b. ≠ ‘She$_i$ made herself$_i$ kill her$_j$.’
c. ≠ ‘She$_i$ made someone$_k$ kill herself$_k$.’

Condition C effects seem to be present as well. (65) cannot mean that the mother simply caused a result where the children were washed, with the identity of the washer being immaterial or underspecified. It necessarily means that someone other than the children washed them. This follows if the pronoun is present for binding theory purposes, since Condition C would rule out the (b) reading.

(65) Möðirin lét þvo börnunum.
   mother.the.NOM let.PST wash.INF children.the.DAT
   a. ‘The mother made someone wash the children.’
   b. *‘The mother made the children wash themselves.’

In sum, while $\Phi$ lacks the D head necessary for it to antecede an anaphor, assuming its presence accounts for several binding effects. First, it closes off the binding domain, accounting for the fact that local anaphors cannot be bound by the matrix subject. Second, it is subject to Condition B, accounting for the fact that the implicit causer cannot be coreferential with the matrix subject. Third, it triggers Condition C effects, accounting for the fact that the embedded object cannot be construed as acting on itself.

6.3 The Implicit Argument Must Be Animate

Another important property of the implicit argument is that it must be animate/human/sentient. Consider the sentence in (66).

(66) Stormurinn kastaði skipinu til.
    storm.the.NOM tossed ship.the.DAT about
    ‘The storm tossed the ship about.’
    (Ottósson 1989:61)

One might imagine that this event could be described with an IC, if we focus on an entity that can be construed as being in charge of a storm, as in (67a).62

(67) a. Guð lét storminn kasta skipinu til.
    God.NOM let.PST storm.the.ACC toss.INF ship.the.DAT about
    ‘God made the storm toss the ship about.’

b. #Guð lét kasta skipinu til.
    God.NOM let.PST toss.INF ship.the.DAT about
    = ‘God made (someone/*the storm) toss the ship about.’

---

62 A reviewer asks if an explicit passive (with a passive auxiliary and participle) can be embedded under ‘let’. In fact, passives are highly restricted and are generally unacceptable with ‘let’; see Wood 2011:25–26 for discussion.
However, the implicit argument in (67b) cannot correspond to the storm. (67b) can only describe a situation where God made some other sentient entity toss the ship about. Since there is nothing conceptually wrong with the unavailable reading, we must conclude that the animacy restriction is linguistically encoded in the construction. In the present proposal, we can tie it directly to the semantics of the silent causee, which must be animate. In fact, other φP constructions in Icelandic have a similar restriction, as discussed for the new impersonal passive by Maling (2006) and the IMC by H. Á. Sigurðsson and Egerland (2009). Since animacy/humanness is connected to φ-features (Harley and Ritter (2002) take it to be one of the organizing nodes for gender), it is plausible to tie this restriction to the feature content of φP.

6.4 Reduced Agency

Even though the implicit argument of Icelandic ICs must be sentient and must occur with agentive verbs, at least two facts indicate that the causee’s agency in this construction is in fact quite reduced, compared with ordinary causative constructions.

First, unlike ordinary causative constructions in Icelandic, ICs are incompatible with VoiceP modifiers like af kappi ‘enthusiastically’, viljandi ‘intentionally’, or purpose clauses. In contrast, vP-level modifiers are fully acceptable in both constructions.

(68) VoiceP modifier (agentive modifier)
   a. Þær létu byggja húsið (*af kappi).
      they.NOM let.PST build.INF house.the.ACC (*enthusiastically).
      ‘They made (someone) build the house (*enthusiastically).’
      (Wood 2011:21)
   b. Þær létu hana byggja húsið af kappi.
      they.NOM let.PST her.ACC build.INF house.the.ACC enthusiastically
      ‘They made her build the house enthusiastically.’

(69) VoiceP modifier (purpose clause)
   a. Húni létt skoða þetta til þess að PROi j fá meiri
      she.NOM let.PST inspect.INF this for it to get.INF more
      reynslu. experience.ACC
      ‘She had (peoplei/j) inspect this in order to PROi/j get more experience.’
   b. Húni létt migj skoða þetta til þess að PROi j fá meiri
      she.NOM let.PST me.ACC inspect.INF this for it to get.INF more
      reynslu. experience.ACC
      ‘She had mej inspect this in order to PROi/j get more experience.’

(70) vP modifier (eventive modifier)
   Þær létu {φ / hana} byggja húsið fljótt.
   they.NOM let.PST { her.ACC} build.INF house.the.ACC quickly
   ‘They made (someone/her) build the house quickly.’
If the embedded verb in an IC projects a full VoiceP with an agentive external argument, differing from ordinary causatives only in that the external argument is silent, it is not clear why agentive modifiers and purpose clauses are not possible.63

Second, consider coordination of two vPs with a disjunction, as in (71).64 Suppose Guðrún is in charge of rebuilding an area, and there are many tasks to do; old things must be destroyed and new things must be built. Yesterday, she decided that her crew would either destroy the car or rebuild the house, but she had no particular preference as to which she would have someone do. In this context, a speaker could say (71a), with the meaning that Guðrún made them do one of those two things, but they would be allowed to choose. Another possible reading of (71a) is that Guðrún did tell the speaker to do something specific (such as destroy the car), but the speaker does not know or remember which. With ICs, however, the first reading is unavailable; only the second is possible.

(71) a. Guðrún lét mig eyðileggja bílnn eða byggja húsið.
   Guðrún let.PST me.ACC destroy.INF car.the.ACC or build.INF house.the.ACC
   ‘Guðrún made me destroy the car or build the house.’
   (i) Causee had a choice; (ii) Speaker doesn’t know/remember which
b. Guðrún lét eyðileggja bílnn eða byggja húsið.
   Guðrún let.PST destroy.INF car.the.ACC or build.INF house.the.ACC
   ‘Guðrún made (someone) destroy the car or build the house.’
   (i) *Causee had a choice; (ii) Speaker doesn’t know which

Both sentences allow a reading where the speaker simply does not know what Guðrún directed someone to do. But with the causee overt in (71a), there is a reading where the causee gets to choose what to do. With the causee silent in (71b), this reading is absent; the sentence can only mean that the speaker does not know what Guðrún made someone do.

Both of these tests have been used in the literature to diagnose the presence of agentive VoiceP. It is thus perhaps surprising that ICs fail these diagnostics. Agentive modifiers and purpose clauses attach at the VoiceP level, so if there is no embedded VoiceP in the IC, the impossibility of such modifiers makes sense; if there is a VoiceP, as we propose, their impossibility is puzzling. As for disjunction, the assumption here is that the ‘choice’ reading is a matter of the causee scoping over the disjunction, which involves coordination of vPs, with one Voice head taking the coordinated vP as a complement. If there is no embedded VoiceP in the IC, the absence of the choice reading makes sense; there is no manifestation of the causee to scope over the disjunction. If there is a VoiceP, as we propose, it is not clear why the implicit causee cannot scope over the disjunction just as the overt causee can, leading to the choice reading.

63 Note that not all speakers find purpose clauses in sentences like (69b) to be acceptable with the causee controlling PRO in the first place; for those speakers, purpose clauses are not informative here. However, the fact that some speakers do allow it in (69b), but none allow it in (69a), calls for an explanation.
64 Harley (2017) uses such coordination as a diagnostic for Voice, citing Kuroda 2003.
Notice that these tests have something in common. They ultimately refer to the truly “agentive” aspects of being an agent. Modifiers like ‘enthusiastically’ and ‘intentionally’ refer to an agent’s choice to carry out an action and/or how the agent chooses to go about it. Purpose clauses identify an agent’s purpose in choosing a course of action. The disjunction test refers to an agent’s choice as to which event to take part in. In both cases, what is needed is a truly autonomous agent who can do as they please. But recall Lundin’s (2003) insight, mentioned earlier. In ICs, the notion of “agent” is split into an INITIATOR and a DOER. Thus, the embedded agent $\phi P$ is a “mind under the control of a mind” with no free will expressed in the constructional semantics. It must be sentient, as mentioned above, but it must not have full control over the event. The person referred to by the matrix argument caused the event to happen precisely by exercising their control over other minds.65

As mentioned above, Nash (2017) has argued that ICs in Georgian are derived with a Voice head on top of a “deagentivized” middle Voice head.

(72) VoiceP

DP
Voice VoiceP
VoiceMIDDLE vP

Her intuition is that “an event denoted by the lexical stem is initiated but the initiator is not structurally realised” (p. 15), because middle Voice is projected. She hypothesizes that “when two initiation subeventualities are adjacent and maximally underspecified, they merge into one unspecified initiation subeventuality” (p. 17). In her view, then, there are not really two initiators in the interpretation; there is just one initiator that initiates the embedded $vP$ in some indirect, underspecified way.

We have shown that (72) cannot be the structure of Icelandic ICs and argued that the embedded initiator is structurally realized. However, we suggest that middle Voice is not the only way to achieve the effects of indirect causation that Nash describes. Projecting an argument as a $\phi P$ is in fact one of the most underspecified ways of projecting an argument. Landau (2010:383) points out that the values of $\phi$-features may restrict the interpretation of $\phi P$, but beyond that,

65 This is not to say that the actual doers really lack free will in the real world. If Mary “makes repair” her car, the specific people fixing it could choose to walk away, sabotage it, and so on. But what the construction expresses is Mary’s ability to exert some kind of control over the world that leads a sentient “someone” to fix it—in this case, presumably, by hiring a person or business whose livelihood depends on not turning down such requests. Mary’s control, then, stems from the circumstances that lead the person to accept such requests and her ability to make such a request. The construction asserts that the matrix subject exerts control of this kind over another sentient mind.
“[its value] is completely context dependent. It could be deictic, anaphoric to some discourse antecedent, or it could be bound by some default sentence-level operator—existential or generic.”

Suppose, then, that although Icelandic cannot build ICs with a middle Voice (since it has no true middle Voice), it can build a “maximally underspecified,” quasi-active VoiceP by merging a φP external argument. In this way, the language builds ICs with formatives that are independently available to it: silent φP external arguments have been argued to be a part of the language independently, building quasi-active VoicePs in progressive passives, aspectual passives, and the impersonal modal construction (see E. F. Sigurðsson 2017:chap. 4). In the present case, the quasi-active VoiceP is embedded under another VoiceP, with the effect that there is one underspecified initiation.66 The matrix subject, then, is not the agent of an event that causes the agent of a distinct, embedded event to act. Rather, the matrix subject is the “indirect” initiator of the embedded event. We propose that this is achieved by something like Lundin’s (2003) agent splitting. When there are two adjacent VoicePs, the higher one is interpreted as an INITIATOR, and the lower one is interpreted as a DOER. Therefore, “choice disjunction” and agentive adverbial modification of the embedded external argument are impossible: the causee is not a full agent, and is only a DOER, thus having no choice about which event to initiate.67

The stacked-VoiceP proposal can account for another curious restriction on ICs. If the implicit argument of ICs is syntactically present, we might expect it to be a possible controller for PRO. However, as illustrated in (73), it cannot.68

(73) a. Hún lét lofa þeim þessu.  
   she  let.PST promise.INF them this  
   ‘She made (someone) promise them this.’

b. *Hún lét lofa þeim á PRO vaska upp snemma.  
   she  let.PST promise.INF them to  wash.INF up  early  
   Intended: ‘She made (someone) promise them to wash up early.’

(73a) shows that ICs can be formed with the verb lofa ‘promise’, while (73b) shows that this is not possible when lofa ‘promise’ takes a control complement. One might imagine that this can be reduced to whatever it is that prevents the silent causee from binding anaphors, as discussed above. That is, it cannot bind PRO either.

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[66] This might explain why, as noted earlier, by-phrases identifying the embedded external argument (the lower VoiceP) are only possible if they, and even the event they are embedded under, are indefinite, generic, or the like. A specific, definite DP would mean that the initiator is not underspecified, and the special interpretation of the stacked VoicePs—which only arises when the lower VoiceP is maximally underspecified—would not obtain. The structure would simply have two ordinary (but distinct) agents of one single event, which we presume is semantically ill-formed.

[67] Our proposal bears some similarity to the proposal Myler (2016) makes for English have-causatives. In Myler’s proposal, have-causatives involve “semantic” Voice stacking, in that the causative v (which is pronounced as have) is semantically expletive. The higher Voice head, which adds an argument to the embedded event, is interpreted as introducing an “engineer” rather than an agent (Myler 2016:286).

[68] Pitteroff and Schäfer (2019) argue that even in true passives, where the implicit argument is not syntactically projected, the implicit argument can control PRO. This makes the facts in (73) mysterious even under a passive analysis of ICs.
However, Landau (2010) argues that $\phi P$ can control PRO, so an alternative account is arguably needed. Consider the structure of (73b), according to our proposal.

(74) VoiceP
  DP
  hún ‘she’
  Voice
  lét ‘let’
  $\phi P$
  Voice
  vP
  lofa þeim að PRO . . .
  ‘promise them to PRO . . .’

If one adopts an Agree-based theory of control (Landau 2000, 2004, 2008), the relationship between the controller and PRO is mediated by an Agree relation with a higher functional head. If this head is missing in the structure of ICs, but is present in the structure of ordinary causatives, then the impossibility of control by the implicit argument in ICs is derived and does not directly stem from its being a $\phi P$.

Suppose that control relations can be mediated by a v head or a T head. Neither is possible in the above structure. There is no matrix v to mediate the relation between $\phi P$ and PRO. Moreover, the T head above the matrix VoiceP would not be able to enter an Agree relation with $\phi P$ past the overt external argument. As Van Urk (2013) argues, discussing a revised formulation of Visser’s Generalization, control into a complement clause by an implicit argument is impossible if an overt DP agrees with T. The proposal that ICs are built with stacked VoicePs thus derives not only the reduced agency of the causee, but also its inability to serve as a controller for PRO.

7 Conclusion

Our study of ICs in Icelandic has emphasized that although the complement of the causative verb must be at least a VoiceP, it is not exactly an active or a passive VoiceP. Rather, it shares certain specific characteristics of both. We have shown how most of the discrepancies stem directly from the status of the silent implicit argument. Its status as an argument in Spec, VoiceP gives it various active-like properties, but its status as a highly underspecified $\phi P$, rather than a DP, gives it various passive-like properties.

Beyond this, the underspecified status of $\phi P$ has another effect on the overall structure, allowing the construction of the indirect causative meaning in the first place. Adopting a proposal by Nash (2017), when a second Voice head is added on top of such an underspecified VoiceP, an indirect causation reading is obtained. We implemented this by invoking Lundin’s (2003) notion of agent splitting: the outer Voice introduces an INITIATOR—an indirect causer—while the
inner head introduces a doer. This accounts for the fact that the causee does not have all the properties of an autonomous agent.

This proposal captures the spirit of many of the previous works on Scandinavian indirect causatives, which invoked processes of “projection compounding” or “abstract incorporation.” The intuition behind such processes was that the causative verb and the embedded verb act as a single verb. According to our proposal, there is a sense in which this is true: both VoicePs are adding thematic meaning to a single lexical verb phrase. More broadly, our study suggests that there is more than one way to build the “maximally underspecified” VoiceP that leads to the indirect causative meaning: it can be done with a passive Voice (Pitteroff 2014), with a middle Voice (Nash 2017), or with an “active” Voice with a highly underspecified argument in its specifier. Thus, the linguistic encoding of indirect causation does not correspond to any one syntactic or semantic primitive; rather, it results from the combination of independently available resources that a language may or may not make available.

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