

On causal *af-því-að*-clauses in Icelandic with a brief comparison to German verb final *weil*-clauses*

Ásgrímur Angantýsson & Łukasz Jędrzejowski
University of Iceland & University of Cologne

Abstract: The main aim of this paper is to examine adverbial causal *af-því-að*-clauses in modern Icelandic with a brief comparison to verb final causal *weil*-clauses in German. Semantically, we argue that *af-því-að*-clauses can be interpreted as content, epistemic or speech act related causal clauses. Syntactically, we show that *af-því-að*-clauses can be analyzed as central, peripheral or disintegrated adverbial clauses in the sense claimed by Haegeman (2003, 2009, 2010, 2012) and Frey (2011, 2012, 2016, to appear), attaching as Tense Phrase, Judge Phrase or Act Phrase adjuncts, respectively. Essentially, we take interpretative differences to follow from the distinct attachment heights. Main arguments for this tripartite division are based on binding data, negation scope, movement restrictions, and mood alternation.

Keywords: causal clauses, adverbial clauses, syntax, Icelandic, German

1 Introduction

In this paper, we examine the syntax of causal clauses in modern Icelandic. We mainly focus on causal clauses headed by one of the most common conjunctions, *af því að*, and briefly compare their properties with those of German verb final *weil*-clauses. In what follows, we put forward the following two main hypotheses abbreviated as H1 and H2:

- H1: *Af-því-að*-clauses can be interpreted as content, epistemic and speech act related causal clauses.
- H2: Causal *af-því-að*-clauses having the
- central adverbial clause status are content clauses throughout,
 - peripheral adverbial clause status can be interpreted as content or as epistemic clauses,
 - disintegrated adverbial clause status are not restricted to any particular semantic interpretation.

Bringing together H1 and H2, we argue that *af-því-að*-clauses are not restricted to any particular semantic interpretation and that they can attach – depending on their interpretation – at three distinct structural heights with regard to the host clause: i) T[ense]P[hrase], ii) J[udge]P[hrase], and iii) Act[P]h[rase]. Concretely, we provide evidence showing that *af-því-að*-clauses can only be content clauses if they attach at the TP level, whereas higher merge

* This work was partially supported by the University of Iceland Research Fund. The second author acknowledges the support by the Daimler and Benz Foundation (grant number: 32-06/18), and the German Academic Exchange Service (grant number: 57445292). We also thank Johan Brandtler for his useful comments and Oddur Snorrason for his assistance in preparing the paper. Of course, all errors and inconsistencies are our own responsibility.

positions allow additional interpretations: epistemic or/and speech act related. To put it differently, it follows from H2 that the syntactic integration grade of the *af-því-að*-clause affects its interpretation: The deeper it is attached, the less semantic interpretations are available.

The paper is structured as follows. Section 2 shows that similar to English *because*-clauses both German verb final *weil*-clauses and Icelandic *af-því-að*-clauses can be interpreted as content, epistemic or speech act related causal clauses, providing empirical evidence for H1, and that they need not exhibit any striking differences on the surface. We discuss arguments showing that causal clauses headed by *weil* in German and by *af því að* in Icelandic can occupy three distinct syntactic merge positions with regard to the matrix clause, resulting in different interpretative and formal effects, and in H2. Essentially, we discuss predictions following from H1 and H2 and elaborate on their cross-linguistic validity. In Section 3, we briefly present a novel account of adverbial modifiers advocated by Krifka (to appear), show – based mainly on Frey (2016, to appear) – how it can be carried over to adverbial clauses, and apply this analysis to causal *af-því-að*-clauses. Finally, Section 4 summarizes the main findings.

2 Causal clauses

This section is concerned with causal clauses from a cross-linguistic perspective. In Section 2.1, we briefly discuss possible causal relations between the matrix clause and the subordinate clause and elaborate on Sweetser’s (1990) classification. In Sections 2.2 and 2.3, we examine causal clauses in German and Icelandic. An interim conclusion is provided in Section 2.4.

2.1 Semantic diversity

Causal clauses normally express, as defined by Cristofaro (2003: 161), a reason relation between two events, one of which (the dependent one) represents the reason for the other to take place (for a broader discussion on what a causal relation may be, the interested reader is referred to Copley & Wolff 2014). According to Sweetser (1990: 77), causal relations can be interpreted on three cognitive levels – the content domain, (1a), the epistemic domain, (1b), and the speech act domain, (1c):

- (1) a. John came back because he loved her.
- b. John loved her, because he came back.
- c. What are you doing tonight, because there's a good movie on.

(Sweetser 1990: 77, ex. 1a-c)

In the content domain, the proposition embedded in the causal clause is interpreted as a fact causing another fact. Concretely, the fact that John loved a female person is a reason for why he came back. A different interpretation arises in the epistemic domain, whereby the speaker specifies the reason for why (s)he thinks the matrix clause is true. Accordingly, the speaker

takes the event of John's coming back to be a reasonable argument to assume that he must (have) be(en) in love with a female person. Finally, the speech act causal clause in (1c) reveals the motivation for why the speaker is performing a speech act. Remarkably, although the examples (1a-c) receive the different semantic interpretations, they are all introduced by a single complementizer.

Before we discuss *af-því-að*-clauses in more detail, we give a brief overview of how German verb final causal *weil*-clauses behave. As they have been described in the literature in a more elaborate way (cf. Antomo & Steinbach 2010, Reis 2013, Scheffler 2013, Volodina 2011, among many others), their brief description will help us better understand how *af-því-að*-clauses behave.

2.2 German verb final *weil*-clauses

Frey (2016)'s departure point is Sweetser (1990)'s division presented in the previous section. However, whereas the latter traces this division back to pragmatic reasoning, the former argues for a clear distinction encoded in the grammar (see also Lang 2000 and Blühdorn 2008). We follow Frey's (2016) view, present his main arguments and show in Section 2.3 to what extent they can be carried over to *af-því-að*-clauses in Icelandic.

Similar to English, German also distinguishes content¹, (2a), epistemic, (2b), and speech act related causal clauses, (2c)²:

- (2) a. Maria ist sehr bleich, weil sie krank ist.
 Maria be.3SG very pale because she ill be.3SG
 'Maria is very pale because she is ill.'
- b. Maria ist krank, weil sie so bleich ist.
 Maria be.3SG ill because she so pale be.3SG
 'Maria is ill because she is so pale.'
- c. Maria ist krank, weil du dich doch immer
 Maria be.3SG ill because you REFL DISCP always
 für sie interessierst.
 for her.ACC be:interested.2SG
 'Since you are always interested in Maria, she is ill.'

What (2a–c) have in common is that they contain a subordinate adverbial causal clause headed by the inherent causal complementizer *weil* 'because' triggering verb final position. They differ both semantically and syntactically though, leading to the general conclusion that highly integrated causal clauses have a content reading, whereas lower integrated causal

¹ For illustrative reasons, we restrict ourselves to the complementizer *weil* 'because' and dispense with discussing other causal complementizers, e.g. *da* or *denn*; for more details, the interested reader is referred to Pasch (1983), Ravetto & Blühdorn (2011), Stede & Walter (2011), Frey (2016), Eberhard (2017), among many others.

² Examples discussed in this section are mainly from Frey (2016).

clauses may be interpreted as epistemic or speech act related causal clauses. Concretely, the *weil*-clause in (2a) provides an explanation for why Maria got pale, i.e., two facts are related to each other, whereby one fact is taken to cause another fact. Under these circumstances, neither an epistemic nor a speech act related interpretation is available. A different situation arises in the example given in (2b). Here, the speaker assumes Maria to be ill based on the observation that she got pale, taking the causal relation to be part of her/his estimation of the world. Note, however, that (2b) additionally allows a content interpretation, but it cannot be analyzed as speech act related.³ Finally, (2c) primarily reveals motivation for why the speaker is performing a speech act, but it is also possible to create contexts in which content and epistemic interpretations would be conceivable too. To illustrate this variability, consider the next example:

- (3) Deine Tante kommt zu Besuch,
 your aunt come.3SG to visit
 weil du (wohl) nach ihr ständig gefragt hast.
 because you presumably after her always ask.PTCP have.2SG
 i) ^{OK}content, ii) ^{OK}epistemic, iii) ^{OK}speech act related

(3) allows three different interpretations. A content interpretation follows straightforwardly without the epistemic discourse particle *wohl* ‘presumably’: The reason for aunt’s visit is the permanent asking for her, i.e., there is a reason relation between two events, whereby one event represents the reason for the other to take place. (3) can also be interpreted epistemically. Concretely, the speaker assumes permanent asking for the aunt to be the reason for why she will come to visit, but (s)he is not certain whether this is the reason of aunt’s visit. It might be a different reason. The use of the epistemic discourse particle *wohl* ‘presumably’ supports this interpretation and its occurrence is expected. As epistemic causal clauses are base-generated in JudgePhrase, they are expected to host epistemic and evidential expressions (see Section 3). Finally, (3) also allows a speech act related interpretation, according to which the speaker reveals the motivation for why (s)he is performing a speech act. Due to the addressee’s permanent asking, the speaker is making the assertion of aunt’s coming to visit. Following this line reasoning, the *weil*-clauses conveys a non-at-issue meaning (cf. Potts 2005 and Scheffler 2013) and is taken to be a performative update, not an informative update. As we show in Section 3, this semantic variation comes from the syntactic status of the *af-þvi-að*-clause.

Frey (2016) applies several syntactic tests to figure out to what extent German causal clauses headed by *weil* are integrated into the host clause: i) binding, ii) prefield position, iii) embeddability along with a *that*-clause, and iv) V-to-C movement in the subordinate clause. We discuss them in turn.

It is a well-established observation that a quantifier can bind an agreeing pronoun occurring in the subordinate clause iff the quantifier c-commands the pronoun. Otherwise,

³ It is not easy to get a content interpretation in such cases. But imagine a situation, for example, in which a professor of medicine explains symptoms of an illness to his students in a hospital. By referring to a particular patient, he might want to utter (2b) in a context in which his students did not expect the patient to be ill.

binding should not be possible. If we expect causal clauses to attach at different structural heights, they are also expected to differ with regard to binding, as the following data illustrate:

- (4) a. Fast jeder Anwesende_i wurde bleich,
 nearly every attendant become.3SG.PST pale
 weil er_i erschrocken ist.
 because he frightened be.3SG
 'Almost every attendant got pale because he was frightened.'
- b. *Fast jeder Anwesende_i muss krank sein,
 nearly every attendant must.3SG ill be.INF
 weil er_i so bleich ist.
 because he so pale be.3SG
 Intended: 'Almost every attendant must be ill because he is so pale.'
- c. *Fast jeder Kollege_i ist krank,
 nearly every colleague be.3SG ill
 weil du dich doch immer für ihn_i interessierst.
 because you REFL DISCP always for him.ACC be:interested.2SG
 Intended: 'Almost every colleague is ill because you are always interested in him.'

Variable binding is only possible in (4a), i.e., into the content causal clause, leading to the conclusion that it must be inside the c-command domain of the quantified DP in the matrix clause. Epistemic, (4b), and speech act related causal clauses, (4c), on the other hand, disallow variable binding supporting the view that they are not c-commanded by the quantifier.

To distinguish between epistemic and speech act related causal clauses, Frey (2016: 156) convincingly shows that only the former can occupy the prefield position of the matrix clause:

- (5) a. [CP [Spec,CP [CP Weil Maria sehr bleich ist]],
 because Maria very pale be.3SG
 [C⁰ muss] sie krank sein].
 must.3SG she ill be.INF
 'Since Maria is very pale, she must be ill.'
- b. *[CP [Spec,CP [CP Weil du dich doch immer für sie
 because you REFL DISCP always for her.ACC
 interessierst]], [C⁰ ist] Maria krank].
 be:interested.2SG be.3SG Maria ill
 Intended: 'Since you are always interested in Maria, she is ill.'

It straightforwardly follows that speech act related causal clauses cannot be part of the matrix clause, whereas content and epistemic causal clauses can, suggesting that the former must adjoin outside the matrix clause altogether. These two diagnostic criteria allow us to draw a clear border line and to postulate three different types of adverbial clauses (see Frey 2011, 2012, 2016 for more details).

Furthermore, speech act related causal clauses – contrary to the other two types – cannot be embedded along with a selected *that*-clause:

- (6) a. Peter sagte zu Maria, [_{CP} dass sie so bleich ist,
Peter say.3SG.PST to Maria that she so pale be.3SG
[_{CP} weil sie erschrocken ist]].
because she frightened be.3SG
'Peter said to Maria that she is so pale because she was frightened.'
- b. Peter sagte zu Maria, [_{CP} dass sie krank sein muss,
Peter say.3SG.PST to Maria that she ill be.INF must.3SG
[_{CP} weil sie so bleich ist]].
because she so pale be.3SG
'Peter said to Maria that she must be ill since she is so pale.'
- c. *Peter sagte zu Maria, [_{CP} dass Fritz krank ist,
Peter say.3SG.PST to Maria that Fritz ill be.3SG
[_{CP} weil sie sich doch immer für ihn interessiert]].
because she REFL DISCP always for him.ACC be:interested.3SG
Intended: 'Peter said to Maria that Fritz is ill since she is always interested in him.'

Finally, Frey (2016) argues that causal *weil*-clauses exhibiting V-to-C movement constitute a different clause type and should be analyzed as disintegrated adverbial clauses regardless of their interpretation:

- (7) a. Fritz ist sehr bleich, weil er ist_i erschrocken t_i.
Fritz be.3SG very pale because he be.3SG frightened
'Fritz is very pale because he was frightened.'
- b. Fritz muss krank sein, weil er ist_i so bleich t_i.
Fritz must.3SG ill be.INF because he be.3SG so pale
'Fritz must be ill because he is so pale.'

- c. Fritz ist krank, weil du interessierst_i dich doch
 Fritz be.3SG ill because you be:interested.2SG REFL DISCP
 immer für ihn t_i.
 always for him.ACC
 'Since you are always interested in Fritz, he is ill.'

Similar to the examples given in (5a–c) with the finite verb in-situ, cases in (7a–c) illustrate the semantic diversity of causal clauses with the finite verb in the second position. In other words, the position of the finite verb has no impact on how to interpret the causal clause. However, syntactically they behave differently and we can prove it by moving the verb second causal clause to the prefield position:

- (8) a. *[_{CP} [_{Spec,CP} [_{CP} Weil er ist_i erschrocken t_i]],
 because he be.3SG frightened
 [_C⁰ ist] Fritz sehr bleich].
 be.3SG Fritz very pale
 Intended: 'Because he was frightened, Fritz is very pale.'

- b. *[_{CP} [_{Spec,CP} [_{CP} Weil er ist_i so bleich t_i]],
 because he be.3SG so pale
 [_C⁰ muss] Fritz krank sein].
 must.3SG Fritz ill be.INF
 Intended: 'Since he is so pale, Fritz must be ill.'

- c. *[_{CP} [_{Spec,CP} [_{CP} Weil du interessierst_i dich doch immer für
 because you be:interested.2SG REFL DISCP always for
 ihn t_i]], [_C⁰ ist Fritz krank].
 him.ACC be.3SG Fritz ill
 Intended: 'Since you are always interested in Fritz, he is ill.'

What this data illustrates is that regardless of the semantic interpretation of the verb second causal clause, a movement to the prefield position of the matrix clause is prohibited. (8c) is expected based on the speech act interpretation. But also content as well as epistemic causal clauses cannot be moved to Spec,CP. Crucially, variable binding is also disallowed:

- (9) *Kaum jemand_i war beleidigt,
 hardly someone be.3SG.PST offended
 weil er_i wurde_j unterbrochen t_j.
 because he PASS.AUX.3SG.PST interrupt.PTCP
 Intended meaning: 'Almost nobody was offended because he was interrupted.'

(9) convincingly illustrates that even content causal clauses exhibiting V-to-C movement prohibit variable binding. Accordingly, only verb final *weil*-clauses appear to be integrated adverbial clauses.

Based on we have seen so far, we can recapitulate our observations as follows:

Table 1: Selected properties of causal *weil*-clauses in German

	causal clause type	binding	prefield position	embeddability with a <i>that</i> -clause	V-to-C movement
1.	content	+	+	+	+
2.	epistemic	–	+	+	+
3.	speech act related	–	–	–	+

In the next section, we examine *af-því-að*-clauses in Icelandic and show to what extent the criteria applied by Frey (2016) can be carried over cross-linguistically.

2.3 Icelandic *af-því-að*-clauses

In this section, we examine the syntactic properties of *af-því-að*-clauses and apply three out of the four tests discussed in Section 2.2, i.e. binding relations, prefield position of the matrix clause, and embeddability with a *that*-clause. In addition, we introduce a new test, namely the possibility of the exceptional verb third in subordinate clauses (see Angantýsson 2020 for an overview). Icelandic is a ‘core V2 language’ in terms of Holmberg’s (2015) classification, meaning that subject-initial V2 is the default word order both in matrix clauses and embedded clauses. Since certain types of the order *subject – sentence adverb – finite verb* are almost impossible in main clauses and quite difficult in *that*-clauses in Icelandic (this holds true if the adverb in question is the negation *ekki* ‘not’, for instance), we hypothesize that this word order is most acceptable in content causal clauses, less so in epistemic causal clauses and least acceptable in speech act related causal clauses. Finally, we look into mood alternations in causal clauses. At this working paper stage, the judgments of the Icelandic examples are only based on the first author’s native intuition. Importantly, it should be kept in mind that many Icelandic speakers dislike subject-initial V3 orders in general (see Thráinsson & Angantýsson 2015: 308–313).

Not much has been written about *af-því-að* clauses, or causal clauses in general, in Icelandic (see a brief overview and references in Thráinsson 2005:148–149). However, and before we attempt to apply the tests, an important observation should be mentioned. As originally discussed by Sigurðsson (1981), the syntactic behavior of “conjunctions” like *af því að* is unexpected if they are simply analyzed as conjunctions. He shows that morphologically and semantically they behave as a sequence of an adverbial phrase (*af því* ‘from/because of it’ in this case) plus one of the common simple conjunctions in Icelandic (*að* ‘that’ in this case). Furthermore, Sigurðsson (1981) points out that complex adverbial phrases of this type resemble a NP taking a CP as its complement. Consider the following examples (based on Sigurðsson 1982):

- (10) a. [Sú staðreynd [að málfræðingar eru skrýtnir]] er óræk
 the fact that linguists be.3PL strange is irrefutable
- b. Sú staðreynd er óræk [að málfræðingar eru skrýtnir].
 the fact be.3SG irrefutable that linguists be.3PL strange
 ‘The fact that linguists are strange is irrefutable.’
- (11) a. [Af því [að Jón brást]] fór María.
 because Jón fail.3SG.PST leave.3SG.PST María
- b. Af því fór María [að Jón brást].
 because leave.3SG.PST María that Jón fail.3SG.PST
 ‘Because Jón failed, María left.’

In (10b) and (11b) the *that*-clauses have been extraposed from their heads in a very similar way, i.e. the NP-head and the adverbial heads respectively. Admittedly though, (11b) is quite marked as opposed to (10b). The main point here is that the “complex conjunction” *af því að* arguably has its inner syntactic structure.

Semantically, Icelandic *af-því-að*-clauses do not deviate from how English *because*-clauses or German verb final *weil*-clauses behave. Likewise, they allow three different interpretations, as well:

- (12) a. Jón kom aftur af því að hann elskaði hana.
 Jón come.3SG.PST back because he love.3SG.PST her
 ‘Jón came back because he loved her.’
- b. Jón elskaði hana, af því að hann kom aftur.
 Jón love.3SG.PST her because he come.3SG.PST back
 ‘Jón loved her, because he came back.’
- c. Hvað ertu að gera í kvöld, af því að
 What be.2SG doing tonight because
 það er góð mynd í bíó.
 there be.3SG a good movie in the cinema
 ‘What are you doing tonight, because there is a good movie in the cinema.’

All subordinate clauses in (12) are introduced by the morphologically complex conjunction *af því að* ‘because’ (literally ‘because of it that’), but they give rise to different interpretations. Essentially, (12a–c) are exactly comparable to (1a–c) in English or – to be more precise – to (2a–c) in German, strongly supporting H1. Accordingly, (12a) is primarily interpreted as *content*, (12b) as *epistemic*, and (12c) as *speech act related*. It is crucial to keep in mind, though, that a single *af-því-að*-clause can give rise to three different interpretations. Consider (13), an Icelandic version of the German example given in (3):

- (13) Frænka þín kemur í heimsókn
 aunt your come.3SG in visit
 af því að þú hefur (líklega) alltaf verið að spyrja eftir henni.
 because you have.2SG presumably always been to ask after her
 i) ^{OK}content, ii) ^{OK}epistemic, iii) ^{OK}speech act related

Likewise, (13) is not restricted to any particular interpretation and depending on the context it can be considered content, epistemic or speech act related. Again, as set out in Section 3, this variation should be attributed to the syntactic status and attachment height of the causal clause itself.

The first test concerns quantifier relations in Icelandic *af-því-að*-clauses and the distinction between content causal clauses, on the one hand, and epistemic and speech act related causal clauses, on the other hand:

- (14) a. Næstum hver einasti þátttakandi_i varð fögur
 nearly every attendant become.3SG.PST pale
 af því að honum_i var brugðið.
 because he be.3SG.PST frightened
 ‘Almost every attendant got pale because he was frightened.’
- b. *Næstum hver einasti þátttakandi_i hlýtur að vera veikur
 nearly every attendant must.3SG to be.INF sick
 af því að hann_i var fögur.
 because he be.3SG.PST pale
 Intended: ‘Almost every attendant must be ill because he is so pale.’
- c. *Næstum hver einasti þátttakandi_i er veikur
 nearly every colleague be.3SG sick
 af því að þú ert alltaf svo spenntur fyrir honum_i.
 because you be.2SG always so interested in him.ACC
 Intended: ‘Almost every colleague is ill because you are always interested in him.’

Icelandic, like German, allows variable binding into the content causal clause, as in (14a), while the epistemic, (14b), and the speech act related, (14c), causal clauses disallow such binding.

The second test regards the prefield position of the matrix clause and the special status of speech act related causal clauses as opposed to the two other sentence types:

- (15) a. [CP [Spec,CP [CP Af því að hún er veik]] [C⁰ er] María mjög fögl.
 because she be.3SG ill be.3SG María very pale
 ‘Because she is ill, María is very pale.’

- b. [CP [Spec,CP [CP Af því að hún er svo föll]] [C⁰ hlýtur] María
 because she be.3SG so pale must.3SG María
 að vera veik].
 be.INF ill.
 ‘Since she is so pale, María must be sick.’
- c. *[CP [Spec,CP [CP Af því að þú ert alltaf svo spenntur fyrir
 because you be.2SG always so interested in
 henni]] [C⁰ er] María veik].
 her be.3SG María sick
 Intended: ‘Since you’re always so interested in her, María is ill.’

Both the content causal clause in (15a) and the epistemic causal clause in (15b) can easily occupy the prefield position of the matrix clause, but the speech act related one in (15c) cannot be a part of the matrix clause. Again, this is the same pattern as in German.

The third test also has to do with the special status of speech act related causal clauses:

- (16) a. Pétur sagði Maríu [CP að hún væri svona föll
 Pétur say.3SG.PST María that she be.3SG.SBJV.PST so pale
 [CP af því að henni hefði verið brugðið]].
 because she have.3SG.SBJV be.PST.PART frightened
 ‘Peter said to Maria that she is so pale because she was frightened.’
- b. Pétur sagði Maríu [CP að hún hlyti að vera veik
 Pétur say.3SG.PST María that she must.3SG be.INF ill
 [CP af því að hún væri svo föll]].
 because she be.3SG.SBJV.PST so pale
 ‘Peter said to Maria that she must be ill because she is so pale.’
- c. *Pétur sagði Maríu [CP að Friðrik væri veikur
 Peter say.3SG.PST Maria that Friðrik be.3SG.SBJV.PST ill
 [CP af því að hún væri alltaf svo spennt fyrir honum]].
 because she be.3SG.SBJV.PST always so excited for him.ACC
 Intended: ‘Peter said to Maria that Friðrik was ill because she is always so excited to see him.’

As in German, speech act related causal clauses in Icelandic – contrary to the other two types – cannot be embedded along with a selected *that*-clause.

The fourth test concerns the relative order of the finite verb and a sentence adverb like the negation in different types of causal clauses in Icelandic (in all cases, the default order would be *finite verb – adverb*).

- (17) a. Jón spyr og spyr [CP af því að hann ekki veit].
 Jón ask.3SG and ask.3SG because he not know.3SG
 ‘Jón asks and asks because he doesn’t know.’
- b. ?Jón hlýtur að vita allt um málið,
 Jón must.3SG know.INF everything about case.ACC
 [CP af því að hann ekki spyr].
 because he not ask.3SG
 ‘Jón must know everything about the case since he doesn’t ask.’
- c. *Ætlarðu einn í bíó [CP af því að þú ekki spurðir
 go.2SG alone to cinema.DEF.ACC because you not ask.2SG
 hvort ég vildi koma með].
 whether I want.1SG.PST come.INF along.
 Intended: ‘Are you going to the cinema alone, because you didn’t ask whether I
 wanted to come along.’

Subject-initial verb third of this type is difficult or impossible in main clauses and “matrix-like” embedded clauses, i.e. subordinate clauses that allow main clause phenomena like topicalization (cf. Angantýsson 2020). Interestingly, the prediction that this order should be hard to get in disintegrated adverbial clauses as (17c) is borne out. The epistemic adverbial clause in (17b) is somewhat marked but the eventually related one in (17a) is fine. Thus, apparently, we have an additional test providing fine-grained distinctions between the three types of causal clauses in symmetrical V2 languages like Icelandic.

What we could observe so far is that variable binding into a causal clause is only possible in Icelandic when the causal clause is interpreted as content clauses, (14a). The same holds for German verb final *weil*-clauses, (4a). However, variable binding is not possible into verb second *weil*-clauses, (9), indicating a different syntactic status, even if it is interpreted as a content clause. Keeping this difference in mind, one might want to establish whether Icelandic subject-initial verb third causal clauses pattern with the canonical *af-því-að*-clauses, (12a–c), or whether they constitute a separate clause type. Binding data convincingly show that the former is the case:

- (18) a. ?Enginn nemandi_i féll á prófinu
 no student fail.3SG.PST on the.exam.DAT
 af því að hann_i ekki lærði.
 because he not study.3SG.PST.
 ‘No student failed the exam because he didn’t study.’

- b. *Enginn nemandi_i undirbjó sig_i almennilega,
no student prepare3SG.PST himself properly

af því að hann_i ekki náði prófinu.
because he not pass.3SG.PST the.exam.DAT

Intended: ‘No student prepared properly for the exam because he didn’t pass the exam.’

- c. *Enginn nemandi_i vill koma,
no student want.3SG come.INF

af því að þú aldrei getur verið kurteis við hann_i.
because you.SING never can.3SG be.PTCP polite to him

Intended: ‘No student wants to come because you can never be polite to him.’

(18a) clearly illustrates that variable binding is possible – even if marked – into the subject-initial verb third causal *af-því-að*-clause, while it is ruled out in contexts where an epistemic, (18b), or a speech act related interpretation, (18c), obtains. Another argument for the special status of subject-initial verb third causal *af-því-að*-clauses comes from the movement to the left edge of the matrix clause:

- (19) a. [CP [_{Spec,CP} [CP Af því að Jón ekki veit]]
because Jón not know.3SG
[C⁰ spyr] hann allan tímann].
ask.3SG he all the time

‘Because Jón doesn’t know, he keeps asking.’

- b. ?[CP [_{Spec,CP} [CP Af því að Jón ekki spyr]]
because Jón not ask.3SG
[C⁰ hlýtur] hann að vita allt Um málið].
must.3SG he to know.INF everything about case.ACC

‘Since Jón doesn’t ask, he must know everything about the case.’

- c. *[CP [_{Spec,CP} [CP Af því að þú ekki spurðir hvort ég vildi
because you not ask.2SG whether I want.1SG.PST
koma með]] [C⁰ ætlarðu] einn í bíó]?
come.INF along go.2SG alone to cinema.ACC

Intended: ‘Since you didn’t ask whether I wanted to come along: Are you going to the cinema alone?’

Similar to the examples presented in (15a–c), subject-initial verb third causal *af-því-að*-clauses cannot be fronted if they receive a speech act related interpretation. This straightforwardly follows from their disintegration status. Content, (19a), and epistemic,

(19b), on the other hand, can be moved to the prefield position of the matrix clause. The variable binding and fronting data indicate that contrary to the situation observed in German, verb position in the *af-því-að*-clause does not change the syntactic status of the causal clause itself.

An important characteristic feature of causal clauses in Icelandic is that they show some variation in mood selection. The default mood is the indicative as in (20a) but if there is a negation in the main clause, both moods are available, giving rise to different interpretations as in (20b) and (20c) (examples from Sigurðsson 1990: 327):

- (20) a. Jón fór af því að hann var/*væri reiður.
 John left because he was.IND/SBJV angry
 'John left because he was angry.'
- b. Jón fór ekki af því að hann var reiður.
 John left NEG because he was.IND angry
 'John didn't leave because he was angry.'
 (= It is not the case that John left, and the reason was that he was angry)
- c. Jón fór ekki af því að hann væri reiður.
 John left NEG because he was.SBJV angry
 'John didn't leave because he was angry.'
 (= John left, but the reason was not that he was angry)

In (20a) and (20b) the content of the causal clause is presupposed and the subjunctive is not an option. In (20c), the subjunctive indicates that the content of the *af-því-að*-clause is not presupposed. In other words, *ekki* 'not' in (20c) negates the possible explanation provided in the *af-því-að*-clause.⁴

Based on what we have seen so far, we can recapitulate our observations as follows:

Table 2: Selected properties of causal *af-því-að*-clauses in Icelandic

	causal clause type	binding	prefield position	embeddability with a <i>that</i> -clause	subject initial verb third
1.	content	+	+	+	+
2.	epistemic	–	+	+	?/+
3.	speech act related	–	–	–	–

⁴ Interestingly enough, German does not pattern with Icelandic in this respect. If the matrix verb bears indicative morphology and is negated, subjunctive morphology is disallowed in the causal clause:

- (i) *Fritz ist nicht gekommen, weil er krank wäre.
 Fritz be.3SG NEG come.PTCP because he ill be.3SG.SBJV
 Intended meaning: 'Fritz didn't come because he is ill.'

For discussions on the general status of negation and subjunctive morphology, see Portner (1997, 2018) and references cited therein.

In Section 2.4, we compare German *weil*-clauses with their Icelandic counterparts introduced by *af því að* and highlights their striking similarities calling for a unifying analysis.

2.4 Interim conclusion

So far we have observed a strong distributional resemblance of *weil*-clauses in German and *af-því-að*-clauses in Icelandic. Semantically, they can be interpreted as content, epistemic or speech act related causal clauses. Syntactically, these three types differ with regard to variable binding, movement to a higher position of the matrix clause, and the attachment possibility to a declarative complement clause. The main difference between German and Icelandic concerns verb movement in the causal clause. Whereas in German all three semantic interpretations allow V-to-C movement making the subordinate clause disintegrated, the position of the finite verb in Icelandic causal clauses does not change its syntactic status. When causal clauses exhibit the verb third word order, a content interpretation is preferred, an epistemic interpretation sounds somewhat marked, and a speech act interpretation is ruled out. Data from variable binding and fronting confirm this observation. Apart from this cross-linguistic difference (mainly due to the internal clause structure of the particular languages, cf. Haider 2005), the tripartite division of causal clauses is the same in both languages. This means that we should expect the same predictions in both languages. One way to check this is to look at causal clauses used as adnominal adverbial clauses, i.e., subordinate clauses modifying a noun.

To our knowledge, Blühorn (2013) was the first who observed that selected types of adverbial clauses can modify nouns in a way similar to relative clauses, although they are introduced by an adverbial complementizer. In passing he mentions the following German verb final *weil*-clause (example taken from Blühorn 2013: 176; ex.85)

- (21) [DP Eine Ablehnung [CP [C⁰ weil] das Geld fehlt]]
 a rejection because the money lack.3SG
 wäre eine Enttäuschung.
 be.3SG.SBJV a disappointment
 ‘A rejection due to lack of money would be a disappointment.’
 i) ^{OK}content, ii) *epistemic, iii) *speech act related

However, Blühorn (2013) does not elaborate on such examples, nor does he provide any analysis. Interestingly enough, Icelandic behaves similarly and allows adnominal causal clauses introduced by *af því að*, as (22) shows:

- (22) [DP Höfnun [CP [C⁰ af því að] það vantaði fjármagn]]
 refusal because it.EXPL miss.3SG.PST money.ACC
 væri vonbrigði.
 be.3SG.SBJV a disappointment
 ‘A rejection due to lack of money would be a disappointment.’

i) ^{OK}content, ii) *epistemic, iii) *speech act related

In (21)–(22) the causal clause is part of the DP, of *eine Ablehnung* in (21) and of *höfnun* in (22) describing the reason for why a rejection would be a disappointment. By forming a single syntactic DP constituent together with the head noun,⁵ we expect the causal clause to be interpreted only as a content causal clause. This prediction is borne out, because neither an epistemic nor a speech act related interpretations are feasible in (21)–(22). This is mainly due to the fact that epistemic and speech act related clauses do not operate on the content level which, in turn, is required for an adnominal causal clause to be licensed (cf. Lubomierski 2020 for more details).

If the three types of causal clauses discussed above can be upheld across languages, it is desirable to develop a unified account. Based on Icelandic, we propose such an account in the next section.

3 Analysis

In this section, we analyze the variation of causal clauses presented in Section 2. First, we compare Frey (2016) with Frey (to appear) and explain how they differ. Then, we outline a novel account of adverbial modifiers proposed by Krifka (to appear) on which Frey (to appear) is based. Putting them together, we, finally, propose our analysis of causal *af-því-að*-clauses covering their semantic and syntactic variation.

Following and extending the analysis of adverbial clauses developed by Haegeman (2003, 2010, 2012), Frey (2016, to appear) proposes to analyze the three different causal clauses along the following lines:

Table 3: Causal clauses, their syntactic status and possible interpretations according to Frey (2016, to appear)

	adverbial clause type	possible interpretation of the causal clause	attachment height	
			Frey (2016)	Frey (to appear)
1.	central adverbial clause	content	TP	TP
2.	peripheral adverbial clause	content, epistemic	ForceP	JP
3.	disintegrated dependent clause	content, epistemic, speech act related	outside the matrix clause structure	outside the matrix clause structure

Cross-linguistically, adverbial clauses are usually divided into three main groups: i) central adverbial clauses, ii) peripheral adverbial clauses, and iii) disintegrated adverbial clauses, cf.

⁵ Adnominal adverbial clauses have not attracted much attention in the literature. To our knowledge, there are only a few papers on the market: two on adnominal conditional clauses in English by Frana (2017) and Lassersohn (1996) and one on German *falls*-clauses by Blümel (2019). Recently, Lubomierski (2020) additionally examined adnominal causal clauses in German. What these studies have shown is that adnominal adverbial clauses are integrated adverbial clauses behaving like restrictive relative clauses.

e.g. Haegeman (2003, 2006, 2010, 2012) for English, Frey (2011, 2012, 2016) for German, Angantýsson (2011, 2017) and Angantýsson & Jonas (2016) for Scandinavian languages, among many others.⁶ Whereas central adverbial clauses are claimed to depend on the illocutionary force of the matrix clause, be part of it and attach at the TP level, peripheral adverbial clauses are associated with the high functional projection ForceP and possess their own illocutionary force. Disintegrated adverbial clauses, in turn, always have independent illocutionary force, are not part of the syntactic structure of the host clause, are true orphans in the sense claimed by Haegeman (2009), and combine with the matrix clause by establishing a rhetorical discourse relation. Crucially, it has to be stressed that content causal clauses can be central, peripheral and disintegrated adverbial clauses. Epistemic causal clauses can be treated either as peripheral or as disintegrated adverbial clauses. Finally, speech act related causal clauses can be only analyzed as disintegrated adverbial clauses. Frey (2016) takes central adverbial clauses to attach as TP adjuncts, peripheral adverbial clauses as ForceP adjuncts, and disintegrated adverbial clauses as adjuncts merging outside the matrix clause structure. Frey (to appear) modifies his previous account, by replacing ForceP with J[*judge*]Phrase. This change is mainly due to Krifka's (to appear) novel approach to adverbial modifiers. We briefly summarize it here, as we make use of it in our analysis too.

Krifka (2015, 2018, 2019, to appear) takes assertions to be linguistic objects requiring a formal representation in the syntax. Crucially, he makes a distinction between propositions, judgements, and commitments. A proposition ϕ is represented by a Tense Phrase, TP. Private judgements are assumed to be encoded in a Judge Phrase, JP, equipped with a syntactic head that turns a proposition ϕ into the propositional function that a judge x judges the proposition ϕ to be true. It is represented as $x J- \phi$, whereby $J-$ stands for the head of the JP. Public assertions are expressed in a Commitment Phrase, ComP, possessing the head \vdash turning a proposition ϕ into the propositional function that speaker x is publicly committed in world i to ϕ : $x \vdash_i \phi$. On top of that, it is necessary to distinguish assertions from questions. According to Krifka (to appear: 6), „[i]n an assertion, a speaker makes a public commitment to a proposition, whereas in a question, the speaker restricts the possible continuations of a conversation so that the addressee makes a public commitment to a proposition.“ This means that both assertions and questions are based on commitments and, correspondingly, equipped with ComP. In order to keep them apart, Krifka makes use of the functional ActPhrase, ActP, and takes “•” to represent an assertion operator, whereas “?” stands for a question operator. Either operator is also a syntactic head of ActP, which is the highest structural category in the clause structure. Based on Woods (2016), Krifka takes ActP to represent speech acts in the syntax and to be able to occur not only in main clauses but also in selected types of subordinate clauses.⁷ Applying this model to Icelandic which is consistently head-initial (cf.

⁶ Recent studies have shown, though, that a more fine-grained classification of adverbial clauses might be needed, cf., for example, Endo (2012) and Endo & Haegeman (2019).

⁷ Frey (to appear: 30) disagrees with this view and proposes, mainly based on Green (2000), a principle of the unembeddability of ActP:

- (i) Principle of the unembeddability of ActP: an ActP cannot be syntactically embedded.

Our data suggest, though, that selected types of subordinate clauses can host ActP modifiers.

Haider 2005, 2012, 2014, Hróarsdóttir 2000 and Thráinsson 2007), we end up with the following clause structure:

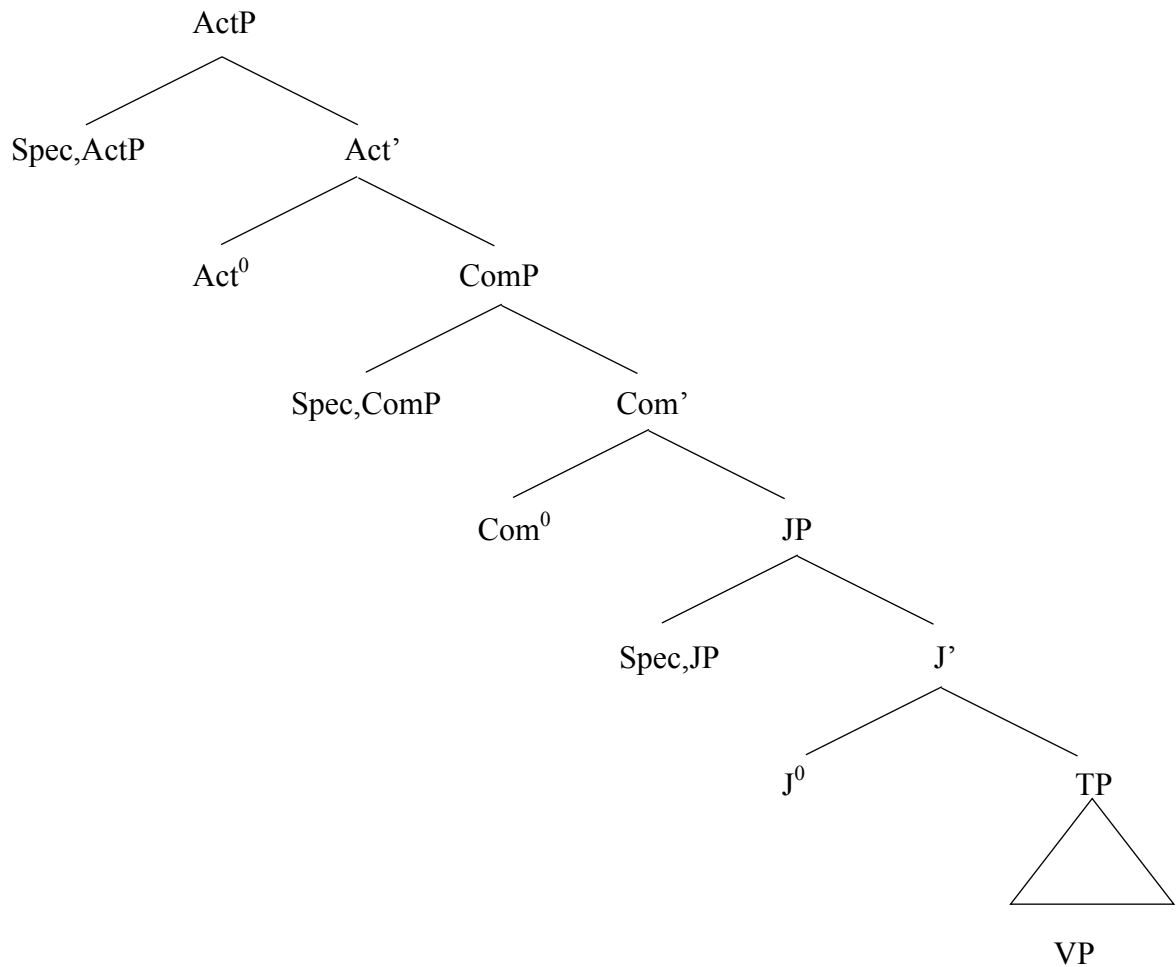


Figure 1: Syntactic representations of propositions, judgements, commitments, and speech acts according to Krifka (to appear)

Evidence for the availability of the functional projections ActP, ComP, and JP comes from adverbial modifiers associated with the particular projection. A sample of selected Icelandic adverbial modifiers is given below (see also Angantýsson 2019 for some differences between Faroese and Icelandic):

(23) Adverbial modifiers in Icelandic:

- a. JP modifiers: *sannarlega* 'certainly', *líklega* 'probably', *sennilega*, 'probably', *greinilega* 'obviously', *að því er virðist* 'apparently', *að því er sagt er* 'allegedly'
- b. ComP modifiers: *ég get svarið það* 'by God; I can swear it', *ég sver* 'I swear', *í alvöru talað* 'seriously; in seriousness/reality', *í fullri alvöru* 'in full seriousness', *án gríns* 'without fun'
- c. ActP modifiers: *í hreinskilni sagt* 'honestly', *ef svo má segja* 'if one can say so', *meðal annarra orða* 'by the way', *sem betur fer* 'fortunately', *í fyrsta/öðru lagi* 'firstly/secondly' *skiljanlega* 'understandably', *samt* 'however'

An example containing adverbial modifiers representing all functional layers is provided in (24).

- (24) *Samt* er *Simon* *án gríns* *alveg* *örugglega* *njósna*ri.
 however be.3SG Simon without fun completely certainly spy
 ‘However, Simon is seriously certainly a spy.’

samt (‘however’) is a classical ActP modifier, *án gríns* (‘seriously’) is a commitment phrase by means of which the speaker increases the strength of the commitment, and *örugglega* (‘certainly’) is an epistemic adverb representing speaker’s attitude towards what is embedded. The most natural word order is when the ActP modifier *samt* occurs on the left edge of the clause and when it c-commands the commitment phrase *án gríns* and the epistemic adverb *örugglega*. A partial derivation of (24) can be portrayed as follows:

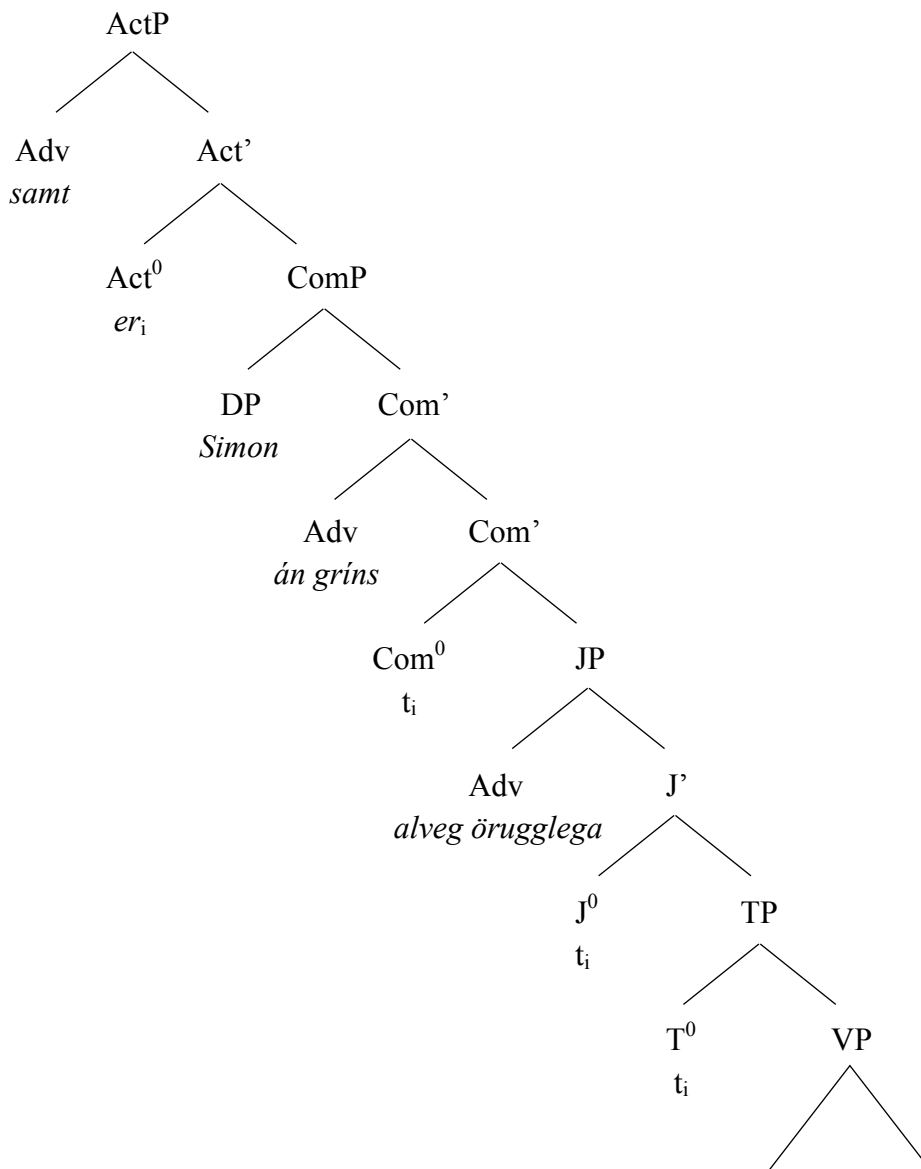


Figure 2: Partial derivation of (24)

The adverbial modifiers are taken to be base-generated in the functional projections, ActP, Comp, and JP. The finite verb, *er* ('is') in (24), moves as V-head to the Act⁰ position, where the speech act itself is determined. The account developed by Krifka (to appear) allows, of course, other (more marked) word order variants of (24):

- (25) a. Símon er samt án gríns alveg örugglega njósnari.
 b. Símon er alveg örugglega njósnari samt án gríns.⁸
 c. Símon er án gríns samt alveg örugglega njósnari.
 d. ?Símon er alveg örugglega njósnari án gríns samt.

All four variants are acceptable in Icelandic, but they do not sound as natural as (24) does. (25a-d) do not pose a challenge to the base-generation approach of adverbial modifiers with respect to a rigid word order. (25a-d) can be derived by scrambling operations. We refrain from discussing the scrambled variants of adverbial modifiers here in more detail and focus on word orders representing the base-generation of adverbial modifiers. This explains why speech act related causal clauses should attach as ActP modifiers, epistemic causal clauses as JP modifiers, and content causal clauses as TP modifiers:

⁸ The commitment phrase *án gríns* 'seriously' in this case might be analyzed as a constituent merging outside the clause. A similar observation can be made with regard to clauses exhibiting the XP-*þá*-pattern as in (i):

- (i) Án gríns, þá er Símon í raun og veru alveg örugglega njósnari.
 without fun EXPL be.3SG Simon in fact and reality completely certainly spy
 'In full seriousness, Simon is in fact completely certainly a spy.'

Space limitations prevent us from discussing such cases in more detail. The interested reader is referred to Jónsson (2019).

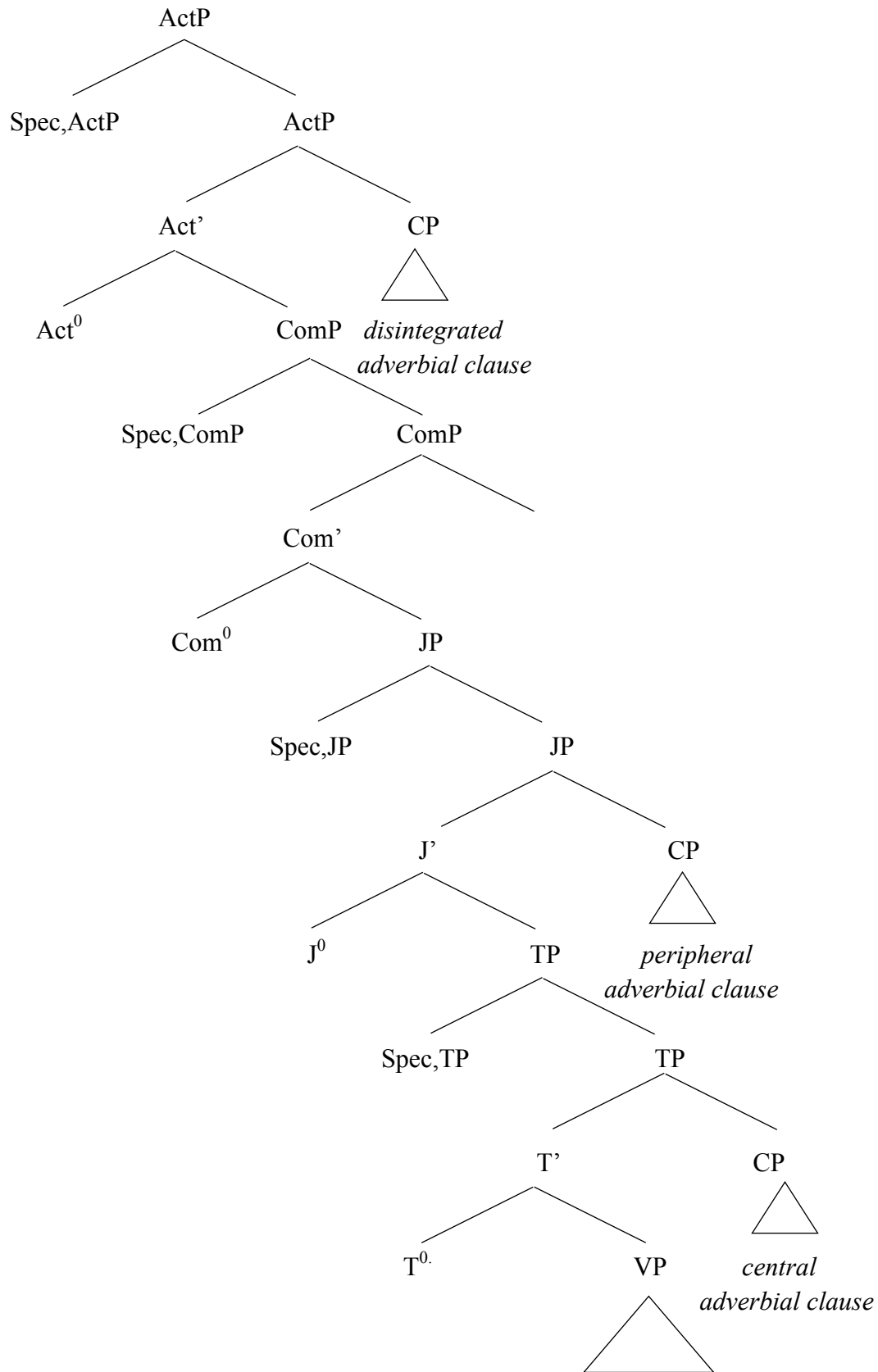


Figure 3: Attachment heights of adverbial clauses according to Frey (to appear)

Now, if causal clauses are base-generated in the dedicated functional projections, they are expected to host adverbial modifiers associated with the particular functional projections. This prediction is borne out. A content causal clause cannot host any adverbial modifiers if it is analyzed as a central adverbial clause:

- (26) *Jón kom aftur af því að hann sennilega elskaði hana.
 Jón come.3SG.PST back because he probably love.3SG.PST her
 Intended: ‘Jón came back because he apparently loved her.’

Epistemic, (27a), and speech act related causal clauses, (27b), on the other hand, tolerate adverbial modifiers. This is to be expected because they cannot be analyzed as central adverbial clauses:

- (27) a. Jón elskaði hana,
 Jón love.3SG.PST her
 af því að hann sennilega kom aftur.
 because he probably come.3SG.PST back
 ‘Jón loved her because he apparently came back.’
- b. Hvað ertu að gera í kvöld, af því að
 What be.2SG doing tonight because
 það er sennilega góð mynd í bíó.
 there be.3SG probably a good movie in the cinema
 ‘What are you doing tonight because there is apparently a good movie in the cinema.’

However, they differ with respect to what kind of modifiers they can combine with. Whereas epistemic causal clauses having the peripheral adverbial clause status are not able to license ActP modifiers, speech act related causal clauses do not exhibit any such restrictions:

- (28) a. *Jón elskaði hana,
 Jón love.3SG.PST her
 af því að hann í hreinskilni sagt kom aftur.
 because he honestly speaking come.3SG.PST back
 Intended: ‘Jón loved her because he, honestly, came back.’
- b. Hvað ertu að gera í kvöld
 what be.2SG doing tonight
 af því að það er í hreinskilni sagt góð mynd í bíó.
 because there be.3SG honestly speaking good movie in cinema
 ‘What are you doing tonight because, honestly, there is a good movie in the cinema.’

Note that we do not argue that content causal clauses cannot host ActP modifiers. Quite the contrary: If they have the disintegrated adverbial clause status, they are expected to host all types of modifiers. This prediction is borne out by examples like (29):

- (29) Ég held að við ættum ekki að ráða Jón af því að
 I think that we should NEG to hire.INF Jón because
 hann er í hreinskilni sagt án gríns alveg örugglega njósnari
 he be.3SG honestly speaking without fun completely certainly spy
 ‘I think that we shouldn’t hire Jón because, honestly, he is seriously certainly a spy.’

(29) is to be interpreted as a content related clause. interpreted as eventuality related. The speaker intertwines two states of affairs on the content level explaining that there is a reason why Jón should not be hired. At the same time, (29) hosts the ActP modifier *í hreinskilni sagt* ‘honestly’, the ComP modifier *án gríns* ‘seriously’, and the JP modifier *örugglega* ‘certainly’, whereby the former c-commands the latter. If, on the other hand, content causal clauses are central adverbial clauses, they disallowed all kinds of modifiers, as exemplified in (29) above.

Finally, adnominal causal clauses do not tolerate adverbial modifiers:

- (30) *[_{DP} Höfnun [_{CP} [_C⁰ af því að] það líklega vantaði pening]]
 refusal because it.EXPL probably miss.3SG.PST money.ACC
 væri vonbrigði.
 be.3SG.SBJV a disappointment

Intended: ‘A rejection probably due to lack of money would be a disappointment.’

The ungrammaticality of (30) straightforwardly follows from the fact that strongly integrated adverbial clauses do not tolerate any adverbial modifiers.

4 Conclusion

In this paper, we investigated the syntax of causal clauses in modern Icelandic introduced by the morphologically complex complementizer *af því að*. Semantically, we showed that *af-því-að*-clauses are not restricted to any particular causal interpretation in terms of Sweetser’s (1990) classification. Correspondingly, *af-því-að*-clauses can give rise to a content, an epistemic or a speech act related interpretation, which are encoded in the grammar and do not come about pragmatic reasoning. Syntactically, *af-því-að*-clauses can be analyzed as central, peripheral or disintegrated adverbial clauses, attaching at three distinct structural heights: TP, JP and ActP. Generally, discussing the Icelandic data we could also confirm the observation made about German *weil*-clauses, according to which less integrated structures have more interpretative freedom than more strongly integrated ones (cf. Antomo & Steinbach 2010, Frey 2016, Reis 2013).

Abbreviations

1/2/3 – 1st/2nd/3rd person, ACC – accusative, DAT – dative, DISCP – discourse particle, EXPL – expletive, GEN – genitive, IMP – imperative mood, IND – indicative mood, INF – infinitive, NEG – negation, PASS.AUX – passive auxiliary, PART – participle, PL – plural, PST – past tense, PTCF – participle perfect, REFL – reflexive pronoun, SG – singular, SBJV – subjunctive mood.

References

- Antomo, Mailin & Markus Steinbach. 2010. Desintegration und Interpretation: *Weil-V2-Sätze an der Schnittstelle zwischen Syntax, Semantik und Pragmatik*. *Zeitschrift für Sprachwissenschaft*, vol. 29:1, 1–37.
- Angantýsson, Ásgrímur. 2011. The Syntax of Embedded Clauses in Icelandic and Related Languages. Doctoral dissertation, University of Iceland, Reykjavík.
- Angantýsson, Ásgrímur. 2017. Stylistic fronting and related constructions in the Insular Scandinavian Languages. In: Höskuldur Thráinsson, Caroline Heycock, Hjalmar P. Petersen & Zakaris Svabo Hansen (eds.), *Syntactic Variation in Insular Scandinavian* [Studies in Germanic Linguistics 1], 277–306. Amsterdam: John Benjamins.
- Angantýsson, Ásgrímur. 2019. On the relative order of central adverbs in the Insular Scandinavian languages. *Working Papers in Scandinavian Syntax*, vol. 103, 30–41.
- Angantýsson, Ásgrímur. 2020. The distribution of embedded V2 and V3 in modern Icelandic. In: Sam Wolfe & Rebecca Woods (eds.), *Rethinking Verb Second*, 240–264. Oxford: Oxford University Press.
- Angantýsson, Ásgrímur & Dianne Jonas. 2016. On the syntax of adverbial clauses in Icelandic. *Working Papers in Scandinavian Syntax*, vol. 96, 126–139.
- Blühdorn, Hardarik. 2008. Epistemische Lesarten von Satzkonnectoren – wie sie zustande kommen und wie man sie erkennt. In: Inge Pohl (ed.), *Semantik und Pragmatik – Schnittstellen* [Sprache – System und Tätigkeit 59], 217–252. Frankfurt am Main: Peter Lang.
- Blühdorn, Hardarik. 2013. Syntaktische Nebensatzklassen im Deutschen. *Pandaemonium*, vol. 16:21, 149–218.
- Blümel, Andreas. 2019. Adnominal conditionals in German. *Linguistics Vanguard* 5:s3, 1–9.
- Copley, Bridget & Phillip Wolff. 2014. Theories of causation should inform linguistic theory and vice versa. In: Bridget Copley & Fabienne Martin (eds.), *Causation in Grammatical Structures* [Oxford Studies in Theoretical Linguistics 52], 11–57. Oxford: Oxford University Press.
- Cristofaro, Sonia. 2003. *Subordination*. Oxford: Oxford University Press.
- Eberhardt, Ira. 2017. From a focus particle to a conjunction: Diachronic and synchronic analysis of German *zumal*. *Language*, vol. 93:2, e66–e96.
- Endo, Yoshio. 2012. The syntax-discourse interface in adverbial clauses. In: Lobke Aelbrecht, Liliane Haegeman & Rachel Nye (eds.), *Main Clause Phenomena. New Horizons* [Linguistik Aktuell / Linguistics Today 190], 365–383. Amsterdam: John Benjamins.

- Endo, Yoshio & Liliane Haegeman. 2019. Adverbial clauses and adverbial concord. *Glossa: A Journal of General Linguistics*, vol. 4:48, 1–32.
- Frana, Ilaria. 2017. Modality in the nominal domain: The case of adnominal conditionals. In: Ana Arregui, María Luisa Rivero & Andrés Salanova (eds.), *Modality across Syntactic Categories* [Oxford Studies in Theoretical Linguistics 63], 49–69. Oxford: Oxford University Press.
- Frey, Werner. 2011. Peripheral adverbial clauses, their licensing and the prefield in German. In Eva Breindl, Gisella Ferraresi & Anna Volodina (eds.), *Satzverknüpfungen. Zur Interaktion von Form, Bedeutung und Diskursfunktion* [Linguistische Arbeiten 534], 41–77. Berlin: de Gruyter.
- Frey, Werner. 2012. On two types of adverbial clauses allowing root-phenomena. In: Lobke Aelbrecht, Liliane Haegeman & Rachel Nye (eds.), *Main Clause Phenomena. New Horizons* [Linguistik Aktuell / Linguistics Today 190], 405–429. Amsterdam: John Benjamins.
- Frey, Werner. 2016. About some correlations between formal and interpretative properties of causal clauses. In: Ingo Reich & Augustin Speyer (eds.), *Co- and Subordination in German and Other Languages* [Linguistische Berichte Sonderheft 21], 153–179. Hamburg: Buske.
- Frey, Werner. to appear. On the status of different dependent clauses. In: Jutta M. Hartmann & Angelika Wöllstein (eds.), *Propositionale Argumente im Sprachvergleich: Theorie und Empirie / Propositional Arguments in Cross-Linguistic Research: Theoretical and Empirical Issues* [Studien zur deutschen Sprache]. Tübingen: Narr.
- Green, Mitchell S. 2000. Illocutionary force and semantic content. *Linguistics and Philosophy*, vol. 23:5, 435–473.
- Haegeman, Liliane. 2003. Conditional clauses: External and internal syntax. *Mind and Language*, vol. 18:4, 317–339.
- Haegeman, Liliane (2006): Conditionals, factives and the left periphery. *Lingua* 116(10): 1651–1669.
- Haegeman, Liliane. 2009. Parenthetical adverbials: The radical orphan approach. In: Benjamin Shaer, Philippa Cook, Werner Frey & Claudia Maienborn (eds.), *Dislocated Elements in Discourse: Syntactic, Semantic and Pragmatic Perspectives*, 331–347. London: Routledge.
- Haegeman, Liliane. 2010. The internal syntax of adverbial clauses. *Lingua*, vol. 120:3, 628–648.
- Haegeman, Liliane. 2012. *Adverbial Clauses, Main Clause Phenomena, and the Composition of the Left Periphery* [The Cartography of Syntactic Structures 8]. Oxford: Oxford University Press.
- Haider, Hubert. 2005. How to turn German into Icelandic – and derive the OV-VO contrast. *Journal of Germanic Linguistics*, vol. 8:1, 1–53.
- Haider, Hubert. 2012. *Symmetry Breaking in Syntax* [Cambridge Studies in Linguistics 136]. Cambridge: Cambridge University Press.
- Haider, Hubert. 2014. The VO-OV split of Germanic languages – A T3 and V2 production. *Interdisciplinary Journal of Germanic Linguistics and Semiotic Analysis*, vol. 19:1, 57–79.

- Haiman, John & Sandra A. Thompson. 1984. "Subordination" in Universal Grammar. *Proceedings of the Tenth Annual Meeting of the Berkeley Linguistics*, 510–523.
- Holmberg, Anders. 2015. 'Verb second'. In: Tibor Kiss & Artemis Alexiadou (eds.), *Syntax — Theory and Analysis. An International Handbook III*, 242–283. Berlin: Mouton de Gruyter.
- Hróarsdóttir, Thorbjörg. 2000. *Word Order Change in Icelandic – From OV to VO* [Linguistik Aktuell/Linguistics Today 35]. Amsterdam: John Benjamins.
- Jónsson, Jóhannes Gísli. 2019. The XP-*þá*-construction and V2. In: Ken Ramshøj Christensen, Henrik Jørgensen & Johanna L. Wood (eds.), *The Sign of the V – Papers in Honour of Sten Vikner*, 341–360. Aarhus University: Department of English, School of Communication & Culture.
- Krifka, Manfred. 2015. Bias in Commitment Space Semantics: Declarative questions, negated questions, and questions tags. *Proceedings of SALT 25*: 328–345.
- Krifka, Manfred. 2018. Semantic types of complement clauses: Propositions, judgements and commitments. Talk delivered at the Conference 'Ars Grammatica: Theorie und Empirie im Sprachvergleich zum Schwerpunktthema Sachverhalts-/propositionale Argumente' at the Institut für Deutsche Sprache in Mannheim.
- Krifka, Manfred. 2019. Commitments and beyond. *Theoretical Linguistics*, vol. 45:1-2, 73–91.
- Krifka, Manfred. to appear. Layers of assertive clauses: Propositions, judgements, commitments, acts. In Jutta M. Hartmann & Angelika Wöllstein (eds.), *Propositionale Argumente im Sprachvergleich: Theorie und Empirie / Propositional Arguments in Cross-Linguistic Research: Theoretical and Empirical Issues* [Studien zur deutschen Sprache]. Tübingen: Narr. Tübingen: Narr.
- Lang, Ewald. 2000. Adversative connectors on distinct levels of discourse: A re-examination of Eve Sweetser's three-level approach. In Elizabeth Couper-Kuhlen & Bernd Kortmann (eds.), *Cause – Condition – Concession – Contrast. Cognitive and Discourse Perspectives* [Topics in English Linguistics 33], 235–256. Berlin: de Gruyter.
- Lasersohn, Peter. 1996. Adnominal conditionals. *Proceedings of SALT 6*: 154–166.
- Lubomierski, Lisa. 2020. Adnominale Kausalsätze im Deutschen. Bachelor thesis, Universität zu Köln.
- Pasch, Renate. 1983. Die Kausalkonjunktionen *da*, *denn* und *weil*: drei Konjunktionen – drei lexikalische Klassen. *Deutsch als Fremdsprache*, vol. 20:6, 332–337.
- Portner, Paul. 1997. The semantics of mood, complementation, and conversational force. *Natural Language Semantics*, vol. 5:2, 167–212.
- Portner, Paul. 2018. *Mood* [Oxford Surveys in Semantics and Pragmatics 5]. Oxford: Oxford University Press.
- Potts, Christopher. 2005. *The Logic of Conversational Implicatures* [Oxford Studies in Theoretical Linguistics 7]. Oxford: Oxford University Press.
- Ravetto, Miriam & Hardarik Blühdorn. 2011. Die Kausalkonjunktionen *denn*, *weil*, *da* im Deutschen und *perché*, *poiché*, *siccome* im Italienischen. In: Gisella Ferraresi (ed.), *Konnektoren im Deutschen und im Sprachvergleich. Beschreibung und grammatische Analyse* [Studien zur deutschen Sprache 53], 207–250. Tübingen: Narr.

- Reis, Marga. 2013. *Weil-V2-Sätze und (k)ein Ende? Anmerkungen zur Analyse von Antomo & Steinbach (2010)*. *Zeitschrift für Sprachwissenschaft*, vol. 32:2, 221–262.
- Scheffler, Tatjana. 2013. *Two-dimensional Semantics. Clausal Adjuncts and Complements* [Linguistische Arbeiten 549]. Berlin: de Gruyter.
- Sigurðsson, Halldór Ármann. 1981. Fjölyrtar aukateningar? [‘Multi-word subordinate conjunctions?’] *Íslenskt mál*, vol. 3: 59–76.
- Sigurðsson, Halldór Ármann. 1990. Long distance reflexives and moods in Icelandic. In: Joan Maling & Annie Zaenen (eds.), *Modern Icelandic Syntax* [Syntax and Semantics 24], 41–69. San Diego: Academic Press.
- Stede, Manfred & Maik Walter. 2011. Zur Rolle der Verknüpfungsebene am Beispiel der Kausalkonnektoren. In: Eva Breindl, Gisella Ferraresi & Anna Volodina (eds.), *Satzverknüpfungen. Zur Interaktion von Form, Bedeutung und Diskursfunktion* [Linguistische Arbeiten 534], 149–179. Berlin: de Gruyter.
- Sweetser, Eve. 1990. *From Etymology to Pragmatics. Metaphorical and Cultural Aspects of Semantic Structure* [Cambridge Studies in Linguistics 54]. Cambridge: Cambridge University Press.
- Thráinsson, Höskuldur. 2005. *Setningar: Handbók um íslenska setningafræði. Íslensk tunga III* [‘Sentences: A Handbook on Icelandic Syntax. Icelandic Language III’]. Co-authors: Eiríkur Rögnvaldsson, Jóhannes Gísli Jónsson, Sigríður Magnúsdóttir, Sigríður Sigurjónsdóttir and Þórunn Blöndal. Reykjavík: Almenna bókafélagið.
- Thráinsson, Höskuldur. 2007. *The Syntax of Icelandic*. Cambridge: Cambridge University Press.
- Thráinsson, Höskuldur & Ásgrímur Angantýsson. 2015. Orðaröð í aukasetningum [‘Word order in embedded clauses’]. In: Thráinsson, Höskuldur, Ásgrímur Angantýsson and Einar Freyr Sigurðsson (eds.), *Tilbrigði í íslenskri setningagerð. II. Helstu niðurstöður. Tölfræðilegt yfirlit* [‘Variation in Icelandic Syntax. II. Main Results. Statistical Overview’], 299–330. Reykjavík: Málvísindastofnun Háskóla Íslands.
- Volodina, Anna. 2011. Sweetser’s Drei-Ebenen-Theorie: Theoretische Überlegungen vor dem Hintergrund einer korpuslinguistischen Studie über konditionale und kausale Relationen. In: Gisella Ferraresi (ed.), *Konnektoren im Deutschen und im Sprachvergleich: Beschreibung und grammatische Analyse* [Studien zur deutschen Sprache 53], 127–155. Tübingen: Narr.
- Wood, Rebecca Louise. 2016. Investigating the Syntax of Speech Acts: Embedding Illocutionary Force. Doctoral dissertation, University of York, York.