Icelandic Case Syncretism
and the Syntax-Morphology Interface

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Abstract

In this paper, we provide an initial overview of an understudied area of Icelandic morphosyntax, namely the effect of case syncretism of the acceptability of a variety of syntactic constructions. We outline a set of hypotheses as to how morphological case syncretism might interact with the narrow syntax, along with the empirical questions that need to be answered in order to test these hypotheses. We observe that the constructions we examine come in two types: cases where the construction makes it unclear which case to expect, and cases where the construction seems to simultaneously demand two distinct cases. We consider the possibility that the effects of case syncretism and its underlying causes may be distinct in these two kinds of constructions. Finally, we elaborate on five different kinds of syncretism, locating them in distinct parts of the grammar, leading to distinct predictions about how the resulting structures are affected.

1   Introduction

It is widely assumed that narrow syntax is not able to directly access the phonological form of its constituents.[1] For example, the Icelandic noun *bók* 'book' takes the same form (*bók*) in the nominative, accusative and dative, whereas the noun *ostur* 'cheese' takes a different form in the nominative (*ostur*), accusative (*ost*), and dative (*osti*). This is presumed to be a rather shallow matter of morphology; *bók* 'book' and *ostur* 'cheese' will both receive an accusative case feature when they are the object of a verb like *kaupa* 'buy' and a dative case feature when they are the object of *henda* 'discard'. It is simply an accident of morphology that *bók* 'book' does not have any morphological distinction that reflects this, whereas *ostur* 'cheese' does.[2]

(1) a. Jón mun kaupa bók.   María mun henda   bók.
         Jón will buy   book.ACC(/DAT)   María will discard book.DAT(/ACC)
         'Jón will buy a book. María will discard a book.'
     b. Jón mun kaupa ost.   María mun henda   osti.
         Jón will buy   cheese.ACC   María will discard cheese.DAT
         'Jón will buy cheese. María will discard cheese.'

However, the acceptability of various syntactic structures seems to be affected by exactly this kind of morphological information. Consider the examples in (2).

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[2] The following abbreviations are used in linguistic examples in this paper: ACC = accusative, DAT = dative, DFLT = default morphology, EXPL = expletive, GEN = genitive, M = masculine, N = neuter, NOM = nominative, PL = plural, PTCP.AGR = participle agreement, REFL = reflexive, SG = singular, ST = clitic *-st* morphology.

(2) a. Hvaða bók   mun Jón kaupa <ACC> og María henda <DAT>?
        what book.ACC/DAT will Jón buy <ACC> and María discard <DAT>
        'What book will Jón buy and María discard?'
    b. %Hvaða ost   mun Jón kaupa <ACC> og María henda <DAT>?
        what cheese.ACC   will Jón buy <ACC> and María discard <DAT>
        'What cheese will Jón buy and María discard?'

In (2), the expression *hvaða bók/ost* 'what book/cheese' corresponds to the object of *kaupa* 'buy', which takes an accusative object, and the object of *henda* 'discard', which takes a dative object. In (2a), the form *bók* 'book' is syncretic for accusative and dative case, whereas in (2b), the form *ost* 'cheese' is accusative but not dative; the dative form would be *osti*. Some speakers find (2a) to be acceptable, and (2b) to be degraded, apparently because in (2a), the form *bók* can correspond to either the accusative or the dative, whereas *ost* in (2b) cannot.[3] This kind of effect, where morphological case syncretism is apparently able to affect the acceptability of a syntactic configuration, has been documented cross-linguistically (Taraldsen 1981; Groos & van Riemsdijk 1981; Dyła 1984; Zaenen & Karttunen 1984; McCreight Young 1988; Bejar & Massam 1999; Miller, Pullum & Zwicky 1997; Citko 2005; Asarina 2011, 2013; Hein & Murphy 2020), but many theoretical and empirical issues remain open. It has not yet been studied systematically in Icelandic, even though the existence of such effects in Icelandic has been occasionally noted, as we will see below.

   The purpose of this paper is to provide an overview of a set of constructions in Icelandic whose acceptability, perhaps even grammaticality, seems to depend on case syncretism, and outline a set of hypotheses as to why this might be along with the empirical questions that need to be answered in order to test these hypotheses. We observe that these constructions fall into two types, shown in (3):

(3) a. **Type 1 Constructions:** Something about the construction makes it *unclear whether to expect* Case A *or* Case B.
    b. **Type 2 Constructions:** Something about the construction seems to *simultaneously demand* Case A *and* Case B.

Type 1 constructions include (but are not necessarily limited to) several kinds of passive constructions, where it is unclear whether to expect the theme to be accusative (due to its structural position and lack of participle agreement) or nominative (based on the passive morphology and absence of another overt nominative). Type 2 constructions include (but are not necessarily limited to) several kinds of coordinated constructions, where a single DP seems to be assigned different cases in different conjuncts. We discuss these types in detail below. In addition, we discuss the distinction between several subtypes of *systematic syncretism* and *accidental syncretism*, and propose that these distinctions are an important potential key to understanding how syncretism plays a role in constraining or allowing different kinds of syntactic constructions.

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[3] Some speakers find (2b) to be perfectly acceptable, however, while we know of no speaker who allows the case to be determined by the second conjunct (in this case, dative).

 With respect to the theoretical and empirical issues discussed above, we must consider the possibility that there are different answers for different constructions. Drawing on the distinction between Type 1 and Type 2 constructions alluded to above, which we will discuss in more detail in the next two sections, we can ask the questions in (4).
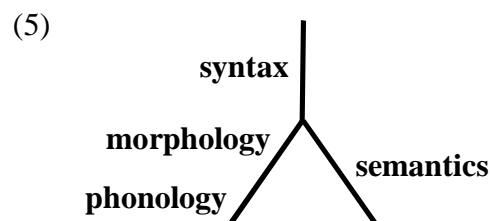
(4) a. Do Type 1 and 2 constructions pattern alike with regard to the effect of syncretism?
  b. Do different constructions within the Type 1/2 classification behave alike?
  c. Do different kinds of syncretism have different effects, and do these effects vary across constructions or construction types?

For (4a), it could be that Type 2 constructions generally become perfect with syncretic nouns, while Type 1 constructions do not; or it could be that there is no such difference. For (4b), it could be that Type 2 constructions all show roughly the same effects; or they might vary. For (4c), it could be that accidental syncretism makes a difference with (some or all) Type 2 constructions but not with any Type 1 constructions.[4]

 This paper is organized as follows. In section 2, we provide a more detailed theoretical background and briefly discuss previous cross-linguistic work on the topic. In section 3, we provide a detailed overview of the sources of syncretism in the grammar, and relate them to patterns of syncretism in Icelandic. In sections 4 and 5 we discuss what is known about Icelandic Type 1 and Type 2 constructions, respectively, and raise questions for future research. Section 6 concludes.

2   Background

A widely held view in generative grammar is that the way the mind generates language — the linguistic derivation — happens in cycles, beginning with a syntax module that builds a structure which is then transferred to different modules of grammar, mapping to a morphological and phonological form, on the one hand, and a semantic interpretation, on the other. This is the so-called Y-model, which is illustrated in (5).

(5)

Once the syntactic derivation (see "syntax" in (5)) has been mapped to Phonetic Form (PF) ("morphology" and "phonology") and Logical Form (LF) ("semantics"), no more syntactic

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[4] To be be clear, the Type 1/2 distinction is for expositional/organizational convenience. We do not necessarily presume that Type 1 or Type 2 constructions (for example) form any kind of natural class. However, they do lend themselves to different kinds of analyses, as mentioned briefly above, so from a practical standpoint we think that the distinction is valuable. Whether they behave like a natural class or not is an empirical question that we aim to answer in future work.

operations can apply, and the syntactic structure can be adjusted only in minimal, highly local ways, if at all. Furthermore, the syntactic module cannot "look ahead" and refer to morphology/phonology or interpretation of the structure. That is, morphological and phonological realization of the structure is not supposed to be able to affect anything that takes place in the syntax module; morphological/phonological form *realizes* syntactic structure; it does not govern syntactic processes.

The Y-model, or some version of it, has been a standard view in generative grammar going back at least as far as Chomsky (1981, 1995). This is in line with a framework like Distributed Morphology (Halle & Marantz 1993, 1994; Halle 1997), where an articulated post-syntactic morphological and phonological component is assumed. On the assumptions of that framework, syntax cannot look ahead to the morphological component in the derivation. But the same basic picture is widely assumed in other frameworks as well. For a concrete example, Zwicky & Pullum (1986) and Miller, Pullum & Zwicky (1997) argue for the Principle of Phonology-Free Syntax (PPFS):

(6) **Principle of Phonology-Free Syntax** (PPFS)
    In the grammar of a natural language, rules of syntax make no reference to phonology.

In a sense, this principle adheres to a post-syntactic view of the morphology and phonology, where the syntactic module 'precedes' a morphological/phonological component in the linguistic derivation, at least in the sense that syntax does not have access to the information provided by whatever part of grammar is responsible for morphology and phonology. These theoretical assumptions make clear empirical predictions: The syntactic derivation should not have access to morphological (and phonological) information, and morphology and phonology should not impact syntax. For example, the syntax may have access to information about the case assigned to an object (assuming that case-assignment is syntactic, which is controversial), but should not have access to information about whether [ACC] is realized as *-a* (as in *ost-a* 'cheeses') or *-i* (as in *vegg-i* 'walls').

However, Miller, Pullum & Zwicky (1997) discuss various apparent counterexamples to PPFS. Consider the French example in (7).

(7) a. Paul l'a   frappé et   {l'a/Ø} mis à la porte.
       Paul him-has struck and him-has put to the door
    b. Paul l'a   frappé et   {lui a/*Ø} donné des   coups de pieds.
       Paul him-has struck and to.him-has given some blows of foot

In the coordinated structure in the French example in (7a), the participle together with the clitic, that is, *l'a*, can be elided, as shown with the symbol Ø. In (7a), the same case, accusative, is assigned by both verbs, 'strike' and 'put'. The ellipsis is ungrammatical in (7b), however, and the reason seems to be that the same case is not assigned to both arguments — the object of 'strike' is assigned accusative whereas the (indirect) object of 'give' is assigned dative. But some clitics, like *nous* 'us' are syncretic for accusative and dative, and, as originally pointed out by Kayne (1975), when those clitics are used, ellipsis of the sort that is impossible in (7b) is possible, as illustrated in (8) — despite the fact that we would assume

that the two instances of *nous* bear distinct case features.

(8) Paul nous a   frappés et   {nous a/Ø}   donné des   coups de pieds.
    Paul us   has struck   and {to.us has/Ø} given some blows of foot

This, prima facie, seems to contradict the PPFS. However, Miller, Zwicky & Pullum (1997) argue that it is not a real counterevidence, showing other examples from a different construction, where syncretism does not save a derivation involving ellipsis. They do not, however, go into any details of how to derive the structures above. The focus in recent works on syncretism with respect to morphology and syncretism — at least within generative grammar — has in fact not been so much on showing that syntax can refer to morphology or phonology but rather to explain how apparent counterexamples can be derived in the syntactic component (e.g. Bejar & Massam 1999; Citko 2005; Asarina 2011, 2013; Bjorkman 2016; Hein & Murphy 2020).

3 The Sources of Ameliorative Syncretism in the Grammar

In this section, we will outline several possible sources in the grammar for syncretism, with reference to a model of grammar along the lines of Distributed Morphology (DM), although other models of grammar very often have similar kinds of distinctions. We will discuss these sources with respect to Type 2 constructions, where we assume with much of the literature on the topic that one way or another, a single node ends up with conflicting features. For example, in the ATB-movement construction in (2) above, a single DP gets accusative case from one conjunct and dative from another. We assume with much of the literature on case morphology that cases like 'nominative', 'accusative', etc., are decomposed into more primitive features. Müller (2005), for example, makes use of the features in Table 1. (See Harðarson 2016 and references therein for a more detailed discussion of possible case-feature decompositions, along with how these might vary across languages.)

Table 1: Case features used by Müller (2005).

	nominative	accusative	dative	genitive
oblique	–	–	+	–
verbal	–	+	+	+
nominal	–	–	–	+

If a single DP gets assigned both accusative and dative case, this means that that node is simultaneously [+oblique] and [–oblique], for example. If a single DP gets assigned both nominative and accusative case, then it is simultaneously [+verbal] and [–verbal]. The question is where in the grammar this conflict arises, where it is a problem, and the extent to which syncretism does or does not get around the problem.

In a DM model of grammar, inflectional morphemes do not have phonological content in the syntax. Instead, the syntax combines lexical roots with abstract feature bundles to build hierarchical tree structures, and these structures are then mapped to semantics (LF) on the one hand and phonology (PF) on the other. In that mapping to the PF branch, there are a number

of stages before a final phonetic string is determined.[5] First, there is a stage where features can be manipulated: new features or nodes can be inserted and existing features can be deleted. After this stage, a process of Vocabulary Insertion determines the phonological realization of the feature bundles at a phonemic level. Finally, the phonemes are chained together and the phonology applies to yield a phonetic string.

Since we are focused on case, it is worth commenting on where case features fit into this picture. In principle, nothing in the DM architecture forces a choice here, and there are roughly two positions in the literature. First, some researchers take the stance that case features are syntactic features, assigned and manipulated in the syntax. According to this, these abstract features are present throughout the derivation, although they can be manipulated in the PF branch as mentioned above. Second, some researchers take the stance that case features are not present in the syntax, but are instead inserted in the PF branch, usually quite early in the spellout process, where the grammar still has access to the hierarchical structure built in the syntax. See Tyler (2020) for a recent overview of the issues involved. There are also hybrid positions, as we will see. In particular, E.F. Sigurðsson (2017) proposes that case features are assigned in the syntax, but that the distinction between nominative and accusative is not determined there. Instead, DPs that end up being nominative or accusative are assigned a feature [STR] (for 'structural') in the syntax; in the PF branch, a DP bearing [STR] gets a further feature which determines whether it is nominative or accusative. Similar issues arise for agreement, which will also be relevant to our discussion. Some linguists have proposed that some or all kinds of agreement or concord take place in the PF component (Bobaljik 2008; Norris 2014), while others assume it is syntactic. It has also been increasingly common to adopt a "two stage" analysis, where an Agree dependency is established in the narrow syntax, but feature copying takes place in PF (H.Á. Sigurðsson 2006; Arregi & Nevins 2012; Marušič, Nevins & Badecker 2015; Kalin 2020; Atlamaz & Baker 2018). All of these theoretical distinctions potentially play a role in what kinds of effects syncretism may have on the acceptability or grammaticality of a sentence.

With this much in place, we can now turn to the question of where in the grammar syncretism, in particular case syncretism, can arise, and how the different possible sources of syncretism might be involved when one DP gets distinct case features from distinct sources. Figure 1 schematizes the different possibilities in the context of a DM model of grammar.[6]

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[5] We gloss over many details here, sticking only to the parts of the spellout system that are relevant to our discussion of case syncretism.

[6] Analogous distinctions may arise in other models of grammar. At the very least, probably most models of grammar would distinguish between accidental homophony and underspecification, and the general phenomenon of meta-syncretism demands an explanation of some sort. The distinction between the two sources of meta-syncretism is more subtle, but arguably the general question arises in any theory, broadly, of which features are operative in the syntax, and possibly neutralized morphologically somehow, and which featural distinctions are not operative in the syntax and only exist in the morphology. However, we continue to present these distinctions in the context of a DM model of grammar for the sake of being precise and explicit.
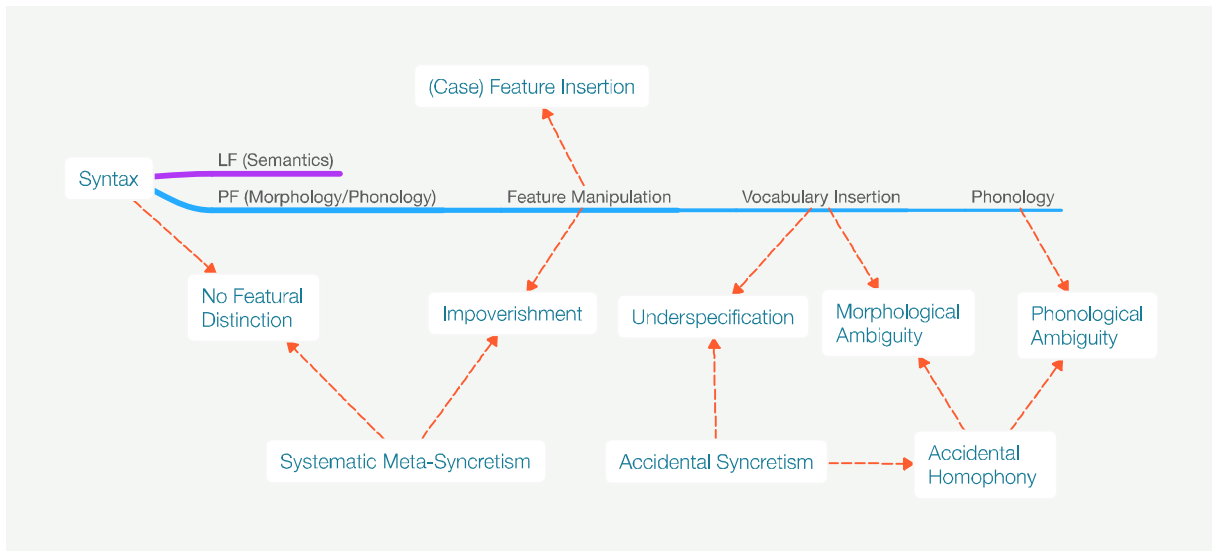
Figure 1: The structure of the grammar and sources of syncretism.

Looking first at the bottom, we identify two broad sources of syncretism: systematic meta-syncretism and accidental syncretism (see Snorrason 2021). We also see that these each have various subtypes, related to distinct parts of the grammar, but as a first pass, we might characterize the distinction between systematic syncretism and accidental syncretism as follows.

(9)   a. **Systematic Meta-Syncretism:** Case A and Case B are systematically syncretic across the language. *Example:* NOM and ACC are always syncretic for neuter nouns, in all inflection classes and on all modifiers.
      b. **Accidental Syncretism:** Case A and Case B happen to get the same form for some word or word class. *Example:* The feminine noun *bók* 'book' takes the same form whether NOM, ACC or DAT (*bók* in all cases), but modifiers or definite markers can disambiguate it (*bókin*, *bókina*, and *bókinni*, for 'the book', respectively), and other feminine nouns at least distinguish NOM and ACC/DAT or between NOM/ACC and DAT.

Meta-syncretism is a syncretism that is not a fact about particular allomorphs or even inflection classes, but is a fact for all lexical items of the relevant subtype across the whole language, even when distinct allomorphs are involved (Williams 1994; Harley 2008). The example given in (9a) is an instance of this. The syncretism between NOM and ACC for neuter nouns occurs for all inflection classes, in the singular and plural, and on any and all modifiers, even when case morphology is suppletive. In contrast, the cases we classify as accidental syncretism all have in common that they do not reflect something consistent across the grammar, but are instead essentially an accident relating to the vocabulary or even the phonology of the language. As we will see, there are some cases where it is not necessarily obvious which of the two apply, as analytical/theoretical considerations may play a role in the classification.

  Within Distributed Morphology, there are at least two ways that a meta-syncretism can arise. First, the distinction may not exist in the syntax in the first place, and instead only arise in morphology, for example by post-syntactic feature insertion. In this scenario, the meta-syncretism may reflect the absence of this feature insertion. Second, the distinction may exist

in the syntax, but become neutralized in morphology, for example by a post-syntactic impoverishment rule. We discuss these possibilities further below.

There are also at least three ways that an accidental syncretism can arise. First, a vocabulary item might be underspecified so that it does not refer to a featural distinction for a particular word or word class. This is accidental in that it just happens to be how that particular vocabulary item is specified; another vocabulary item for a distinct word that is otherwise syntactically the same might make a distinction. Second, two distinct vocabulary items might just happen, by some coincidence, to lead to the same phonological form. This is what Asarina (2011, 2013) refers to as "morphological ambiguity". Finally, two distinct vocabulary items might have distinct phonemic forms, but the distinction might be neutralized by the phonology of the language.

Moving from left to right in the diagram in Figure 1, we will now discuss each of these subtypes, and connect them to the mechanisms of grammar and possible instances of them in Icelandic. To begin, suppose that there is no featural distinction in the syntax, but one arises at the feature manipulation stage (say, by case feature insertion). The semantic representation will not "see" any potential feature conflict; it will be purely at the PF branch. This already could lend itself to an improvement in acceptability, if the morphology can handle the conflict in some way.[7] In this situation, there are in principle two options at the feature manipulation stage. First, we could insert the features and create the conflict, which would then have to be resolved in some way by the other mechanisms that we discuss immediately below (impoverishment, underspecification, accidental homophony). Second, we could assume that the grammar does not insert the features in the relevant case, and thus the problem does not arise in morphology either. We would not need to appeal to underspecification or accidental homophony; there is simply never a problem. This is in fact the best case scenario for the grammar: the semantics sees no conflict, the syntax has no conflict, and the morphology creates no conflict. The presumption of a featural conflict is strictly an artifact of our analytical terminology that mistakenly assumed one in the first place. One would expect, if this were the case, that the effect of apparent syncretism repair would be "complete" repair, with no difference between those cases and cases where the features have always assumed to be matched.

To take a concrete hypothetical example of the first, consider that E.F. Sigurðsson (2017) proposes that in the syntax, there is no distinction between NOM and ACC. Rather, DPs can be assigned a syntactic case feature [STR] (for 'structural'), and at PF (in the feature inser-tion stage), it is determined whether [STR] will correspond to NOM or ACC, prior to Vocabulary Insertion. Now consider NOM/ACC syncretism in neuter nouns, which, as we noted above, is systematic. One possible analysis of this fact would be to say that neuter nouns might simply remain [STR], without ever getting a NOM or ACC feature, and Vocabulary Insertion is thus not sensitive to the potential distinction between nominative and accusative. Morphological syncretism arises because NOM/ACC are never distinguished, and this may allow some syntactic structures to converge without there ever being a conflict in features in the first

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[7] Put another way, if the syntax *does* have a feature conflict, nothing that happens on the PF branch will change the fact that the semantics will "see" that conflict; this may or may not be a problem, depending on the features involved (and whether they are interpretable features or not), but it is worth considering.

place.

Second, suppose that there is a distinction in the syntax, so a feature conflict arises there. The semantics sees this conflict, and the morphology potentially does too. But syncretism helps. How? Here we might assume that the 'deeper' the source of the syncretism, the more it helps to improve acceptability. If impoverishment removes the conflict, then there is no conflict at any later stage that the grammar has to contend with. Vocabulary Insertion can proceed as it normally does and the feature conflict causes no more problems. In this case, we would expect the repair to be fairly strong, the only thing 'wrong' with the derivation/representation being the existence of the conflicting feature bundle to begin with. This could lead to some degradation at LF, or it could be that there is some soft constraint against such feature bundles. This latter possibility is worth considering, even if it is hard to imagine in current standard models of grammar how the grammar would build a feature bundle in the syntax and then 'penalize' it, but still allow it. If the grammar does work like that, then one might plausibly imagine that the longer the conflict is in the grammar, the more degraded the construction will be.

To take a concrete potential example, consider ACC/DAT syncretism in Class A' feminine nouns such as *drottning* 'queen'. Müller (2005) analyzes this syncretism as being due to impoverishment. In contrast, Müller proposes that ACC/DAT syncretism with Class I masculine nouns like *staður* 'place' is the result not of impoverishment, but underspecification. We might then imagine a situation where the ameliorative effect of syncretism is stronger in the former case than the latter: in the former case, the conflict is present only up to the impoverishment stage, where in the latter case, the conflict is present in the impoverishment stage and in addition in the Vocabulary Insertion stage. Additionally, or perhaps alternatively, an underspecification account may lead to 'spellout dilemmas' in the sense of Kratzer (2009), where the normal vocabulary items do not lead to a clear winner in the face of the unusual feature bundle. Finally, a subtype of this approach would be to say that the grammar, in the face of conflicts, ends up with two separate feature bundles, and must do Vocabulary Insertion twice, as proposed by Asarina (2011, 2013) and Bjorkman (2016) (see also Coon & Keine 2020). Their proposal is that this is acceptable only if both instances of Vocabulary Insertion use the same vocabulary item. This extra process could in principle still lead to a slight degradation, due to the extra mechanisms, but given how this has been applied in the literature, it should only be slight; in general: if that is how the grammar works, then the result should be grammatical when it works. However, it is also possible that the grammar does not distinguish between impoverishment and underspecification as long as the subset principle can pick an unambiguous winner.

Finally, underspecification could be distinct from at least two types of accidental homophony, namely what Asarina (2011, 2013) refers to as 'morphological ambiguity', where two completely distinct vocabulary items happen to pick the same phonological form, and 'phonological ambiguity', where two distinct vocabulary items pick distinct forms, but the phonology neutralizes the distinction. In this case, it really is an accident that syncretism arises. It is easy to imagine that these would lead to the least improvement: the conflict is present throughout, and Vocabulary Insertion cannot resolve the representation to decide on a single vocabulary item. In the case of morphological ambiguity, it would seem that the system is forced to pick one arbitrarily, and somehow be sensitive to the fact that the result is the

same. In the case of phonological ambiguity, it would seem that the same applies, but an even shallower sense of 'self awareness' on the part of the grammar is necessary. For morphological ambiguity, one could imagine perhaps assuming with Asarina (2011, 2013) and Bjorkman (2016) that Vocabulary Insertion applies twice, but assume that the same vocabulary item does not need to apply in both cases, and it is enough that both instances of Vocabulary Insertion agree on the final form. It is harder to apply this to phonological ambiguity, but perhaps possible, depending on how far into the phonology the Vocabulary Insertion process goes before stringing together larger phonological representations.[8] One might therefore expect phonological ambiguity to improve things the least. However, it is possible that such cases could improve a construction's acceptability without actually making it grammatical, if what is really going on is that the syncretism creates a kind of grammatical illusion at the level of parsing (Phillips et al. 2011); essentially, someone judging a sentence might not attend to aspects of the sentence that violate some principle of grammar because it is easy to parse, and the violation is not so "jarring".

In fact, as we will review below, the vast majority of existing analyses of ameliorative syncretism seem to invoke some version of underspecification (see, e.g., Harley 2008; Caha 2013; Sauerland & Bobaljik 2013; Harðarson 2016). In part, this is probably because it tends to be the default analysis of syncretism in the first place, when it is possible. To give a concrete example of accidental homophony by morphological ambiguity in Icelandic, it is generally agreed that ACC/GEN syncretism in the plural of Class A strong masculine nouns like *hestur* 'horse' (*hesta*) is an accident, a case of morphological ambiguity (Müller 2005; Harðarson 2016). On the one hand, there is a specific rule that chooses *-a* for these nouns in the plural accusative, on the other there is a separate, general rule that chooses *-a* for these nouns in the genitive for all genders. The syncretism arises by historical and synchronic accident. As for phonological ambiguity, we do not know of any such cases in Icelandic that are reflected in the spelling system (i.e., that show no distinction in the spelling system). However, there are some potential cases where phonology could neutralize a distinction at least auditorily.

To sum up this discussion, the DM model of grammar outlined above presents at least five ways that syncretism might improve a sentence in the face of a feature conflict. They are presented below from the 'highest' to 'lowest' expectation of improvement:

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[8] For example, one normally assumes that Vocabulary Insertion at the segmental-featural level would have to precede prosodic phonological phrase formation, where already-created segmental representations are strung together. So if a phonological rule that neutralizes the distinction in question is conditioned by phrasal prosody, it would seem that the Vocabulary Insertion process would have to be resolved/completed before the conditioning environment for neutralization is created.

(i)   Syncretism helps because there was never any featural distinction
        *NOM/ACC syncretism in neuter nouns (*borð *'table')*
(ii)   Syncretism helps because an early repair (impoverishment) resolved the conflict
        *ACC/DAT syncretism in Class A' feminine nouns (*drottning *'queen')*
(iii)   Syncretism helps because the vocabulary items do not refer to the features involved in the conflict
        *NOM/ACC syncretism plural Class I feminine nouns (*myndir *'pictures')*
        *ACC/DAT syncretism in singular Class I masculine nouns (*staður *'place')*
(iv)   Syncretism helps because distinct vocabulary items point to the same phonological form
        *ACC/GEN syncretism in plural weak and Class A masculine nouns (*hestar *'horses')*
(v)   Syncretism helps because phonology neutralizes a phonemic distinction
        Final vowel deletion removing a case-marking vowel

As mentioned above, recent research has leaned heavily toward various versions of the underspecification kind of explanation: ultimately, syncretism helps because a vocabulary item does not refer to the features at the source of the conflict. Asarina (2011, 2013) and Bjorkman (2016) propose that when a single node gets features from two sources, two separate feature bundles are generated. Each feature bundle undergoes its own round of Vocabulary Insertion, and the result is only grammatical if the same vocabulary item is chosen for both bundles. It is precisely underspecification that allows two conflicting feature bundles to both be realized by the same vocabulary item. Hein & Murphy (2020) propose that in these circumstances, the resulting node gets the intersection of the two feature bundles. In the case of feature conflicts, this will only work if there is a vocabulary item that can realize the new feature bundle; that is, there must be a vocabulary item which is not specified for the features that create the conflict. Kratzer (2009), focusing on syncretism in verbal agreement forms, proposes what she refers to as a "spellout dilemma". For her, there is no actual feature conflict *per se*. She claims that gender features usually only show up on 3rd person, and there is no actual 3rd person feature. One head can get 1st and 3rd person features simultaneously in the constructions she examines, so the result is a combination of, say, [SG][F] for 3rd person, and [1st][SG] for 1st person: one node has [1st][SG][F]. However, the result of this is that two vocabulary items are equally applicable, because there is no subset relation between them: a 3rd person vocabulary item specified to realize [SG][F] and a 1st person vocabulary item specified to realize [1st][SG]. The "spellout dilemma" arises because the grammar has no way to choose a vocabulary item, and thus cannot spell out the feature bundle. In plural, however, an elsewhere form can be used, which does not refer to any of these features (normally used to account for 1st/3rd-person syncretism). Because this underspecified vocabulary item exists, there is no spellout dilemma, and the result is grammatical.[9]

There are some references to other sources of syncretism in the literature. Bjorkman (2016) proposes an impoverishment account for a small subset of cases (specifically for cases like *I have <u>come put</u> the books on the shelf*, which, interestingly enough, not all speakers find acceptable). Asarina (2013) explicitly argues that cases of accidental homophony, whether

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[9] Bhatt & Walkow (2013) propose an account in a lexicalist framework different in important respects from DM, but to the extent its insight can be translated, it is most similar to an underspecification account.

due to morphological ambiguity or phonological ambiguity, do not have ameliorative effects in the cases she discusses. She does not, however, distinguish between meta-syncretism and underspecification, both of which could be ameliorative, as long as the same vocabulary item is involved. Moreover, even in the cases of accidental homophony, there is some speaker variation in her data, so it is not clear if her conclusion holds conclusively for all speakers. Wood (2020) argues that syncretism in verbal agreement in dative-nominative constructions (on which see H.Á. Sigurðsson 1990–1991, 1996) has two possible sources. For verbs that take the *-st* clitic, a kind of meta-syncretism arises in the singular, and in fact this is because unlike in the other cases, in this case the syntax never builds a conflicting feature bundle to begin with. For syncretism in the plural with *-st* verbs, or any syncretism with non-*st* verbs, it is assumed that there is a conflicting feature bundle that the PF component resolves somehow, although Wood is not specific about what mechanism is involved, and it could be different in different cases.[10]

We close this section with a presentation of the different sources of syncretism proposed in Müller's (2005) analysis of Icelandic inflection classes, as a summary and point of reference for future work that will aim to elucidate the properties of the constructions in the sections to follow.

<u>Syncretism by impoverishment</u>
- Nominative/Accusative
  - Class A Neuter Singular   *borð* 'table'
  - Class A Neuter Plural   *borð* 'tables'
  - Weak Neuter Plural   *auga* 'eyes'
    - **Note:** Müller (2005) proposes that impoverishment removes the distinction between nominative and accusative for neuter in general, in all cases. However, not all vocabulary items distinguish dative, so in some cases, the actual morphological syncretism goes beyond just NOM/ACC, and is the result of underspecification.
- Accusative/Dative
  - Class A' Feminine Singular   *drottning* 'queen'

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[10] For example, there is frequent syncretism between 2nd and 3rd person plural of *-st* verbs, which could stem from phonological ambiguity, where a 2nd plural form is underlyingly *-uð-st* with the *-ð-* being deleted, leading to it being phonologically like the 3rd person plural form, which is underlyingly *-u-st*. However, syncretism between 1st and 3rd person singular in the past tense of non-*st* verbs could be due to impoverishment, since 1st and 3rd person are never distinguished in the past (or in the subjunctive). Syncretism between 2nd and 3rd person in the present tense singular could be due to underspecification, where there is one form to realize any [–author] feature. Whether these possibilities are on the right track, and whether they lead to any differences in the effect of syncretism empirically, has not to our knowledge been investigated.

<u>Syncretism by underspecification</u>

- Nominative/Accusative
  - Class A(') Feminine Plural   *vél* 'machine', *drottning* 'queen'
  - Class I Feminine Plural   *mynd* 'picture'
  - Class C Masculine Plural   *fótur* 'foot'
  - Class C1 Feminine Plural   *geit* 'goat'
  - Class C2 Feminine Plural   *vík* 'bay'
  - Weak Feminine Plural   *húfa* 'hat'
- Nominative/Accusative/Dative
  - Class A Feminine Singular   *vél* 'machine'
  - Class I Feminine Singular   *mynd* 'picture'
  - Class C1 Feminine Singular   *geit* 'goat'
  - Class C2 Feminine Singular   *vík* 'bay'
- Nominative/Accusative/Dative/Genitive
  - Weak Neuter Singular   *auga* 'eye'
- Accusative/Dative/Genitive
  - Weak Masculine Singular   *penni* 'pen'
  - Weak Feminine Singular   *húfa* 'hat'
- Accusative/Dative
  - Class I Masculine Singular   *staður* 'place'

<u>Syncretism by morphological ambiguity</u>

- Accusative/Genitive
  - Class A Masculine Plural   *hestur* 'horse'
  - Weak Masculine Plural   *penni* 'pen'

This is not the only possible way of understanding the different kinds of syncretisms. For example, Snorrason (2021), in a study of the Type 1 constructions discussed below, considers two types, which he calls meta-syncretism and accidental syncretism. In his work, neuter NOM/ACC syncretism certainly counts as meta-syncretism, but also feminine plurals, because they never make a distinction between nominative and accusative. For morphological reasons, having to do with the exact forms of plural inflection markers, Müller (2005) derives the latter by underspecification rather than by impoverishment. However, underspecification is a rather large class in Müller's work, as we see above, arguably because it is the preferred mechanism in DM for deriving syncretism unless some other mechanisms are specifically called for, and Müller was not specifically considering the fact that for all adjectives, numerals, pronouns, quantifiers, etc., there is never a distinction between nominative and accusative in the feminine plural. Nevertheless, it would be wise to follow Snorrason's intuition and take seriously how systematic a syncretism is when deciding which examples to include as representative of that option. We will now discuss Type 1 and Type 2 constructions in more detail, starting with Type 1 constructions.

4   Type 1 Constructions

To begin, consider the sentences in (10), which show different possible realizations of a passive of the ditransitive verb *gefa* 'give'.

(10) a. Mér   voru   **gefnir**   þessir   bílar.
        me.DAT were.PL given.M.PL.NOM these.M.PL.NOM cars.M.PL.NOM
        'I was given these cars.'
    b. Mér   var   **gefið**   þessir   bílar.
        me.DAT was.SG   given.DFLT   these.M.PL.NOM cars.M.PL.NOM
    c. Mér   var   **gefið**   þessa   bíla.
        me.DAT was.SG   given.DFLT   these.M.PL.ACC cars.M.PL.ACC

In these examples, the dative *mér* 'me' is in the subject position. (10a) is the canonical passive, where the passive participle agrees in gender, number and case with the nominative object argument and the auxiliary *vera* 'be' agrees with it in number. (10c) shows a novel construction which is accepted mostly by younger speakers (Jónsson 2009; Thráinsson, Sigurjónsdóttir, Árnadóttir & Eythórsson 2015).[11] This construction features accusative case on the theme in place of nominative, and neither the verb nor the participle agree with the theme. (10b), however, seems to be a hybrid of these two constructions: the object is nominative, just like with the canonical passive in (10a), but the verb and participle do not agree with it, just like the novel dative-accusative construction in (10c). Examples like (10b) can be found in writing (Árnadóttir & E.F. Sigurðsson 2008), but speakers generally reject them when asked to judge them.

     Rather few examples of the types in (10b) and (10c) are found using the Icelandic Gigaword Corpus (which contains more than 1.5 billion words; Steingrímsson et al. 2018). However, there are substantially more examples like (11b) (Snorrason 2021), where it is not clear whether the noun is nominative or accusative: the form is syncretic for these two cases.

(11) a. Mér   voru   **gefin**   röng   lyf.
        me.DAT were.PL given.N.PL.NOM wrong.N.PL.NOM/ACC   medicine.N.PL.NOM/ACC
        'I was given wrong medicine.'
    b. Mér   var   **gefið**   röng   lyf.
        me.DAT was.SG   given.DFLT   wrong.N.PL.NOM/ACC   medicine.N.PL.NOM/ACC

This suggests the possibility that syncretism makes (11b) more acceptable or grammatical than (10b) or (10c). In fact, Snorrason (2021) found this to be the case in a large scale survey study with 651 participants: sentences like (11b), with syncretism, were judged reliably higher than sentences like either (10b) or (10c) across the population, and 101 speakers rejected both (10b–c)-type sentences but accepted (11b)-type sentences.

     Why might this be? Notice that unlike the Type 2 constructions that we focused on

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[11] Jónsson (2009) takes (10c) to be an instance of the so-called New Impersonal Passive, a heavily debated topic of Icelandic syntax (Maling & Sigurjónsdóttir 2002; Eythórsson 2008; H.Á. Sigurðsson 2011; Ingason, Legate & Yang 2013; Legate 2014; E.F. Sigurðsson 2017).

earlier, here we do not have any reason to think that this is a situation where the noun is being assigned two cases, nominative and accusative, and syncretism somehow allows a contradictory feature bundle to be realized. So let us consider the possibilities, under the assumption that there is something wrong with (10b), and that this is ameliorated in some way by the syncretism in (11b). Starting with the syntax, suppose, as discussed above, that there is no distinction between nominative and accusative in the narrow syntax; the distinction is created by feature insertion in the PF branch. Descriptively, what is wrong with (10b) is that nominative objects in passive constructions obligatorily trigger agreement on participles and finite auxiliaries,[12] and in (10b), there is no such agreement. (11b) seems to ameliorate this because one could assume that the form there is not actually nominative; it is either accusative, like (10c), or it is simply underspecified at the point when agreement takes place, something that is not an option for (10b), where the theme is masculine and unambiguously nominative. However, if it is accusative, then that would not predict the hypothesized state of affairs where in fact, (11b) is also more acceptable than (10c), with unambiguous accusative.

Wood et al. (2020) explore case agreement in an unrelated domain, and propose that speakers can vary as to whether they apply impoverishment rules before or after agreement. Suppose, then, that this is at play here: in (11a), agreement applies first, and then impoverishment neutralizes the distinction between nominative and accusative; in (11b), impoverishment applies before agreement has a chance to, and the result is that the participle cannot find any case feature to trigger agreement. This cannot apply to (10), since there is no impoverishment rule in that case. (10b) is ungrammatical, or rather, not derived, because agreement will take place, so the default, non-agreeing forms will not arise. (10c) is not derived because this is not a context for accusative case for most speakers. For speakers who do accept (10c), it would be because their grammar does insert an accusative case feature, but this feature does not make the DP a target for finite verb agreement.

The above sketch of an account is certainly not the only possibility. However, notice that it relies on the idea that there must normally be a nominative feature present at some stage of the derivation, which is then deleted by impoverishment. It is less clear how to derive (11) if there is never any such distinction. Notice also that this account depends on an impoverishment analysis of NOM/ACC syncretism: the distinction between nominative and accusative must be lost by the time agreement applies. It would not extend to an underspecification account; so if that is the right account of NOM/ACC syncretism in, say, feminine plurals (or any of the other cases listed above, based on Müller's (2005) work), then we might expect the ameliorative effect of syncretism in neuters to be more robust than the effect with feminine plurals. Or, as we alluded to above, feminine plurals might be derived by impoverishment after all (since they are in fact meta-syncretic, and grouped with neuters in Snorrason 2021), and they would pattern with neuters, but differently from some of the other cases which more clearly do stem from underspecification.[13]

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[12] This is distinct from some non-passive/active dative-nominative constructions, where nominative object agreement is optional for some speakers in some cases.

[13] Note that while Snorrason (2021) found a clear effect of syncretism, he found no difference between what he called accidental syncretism and systematic meta-syncretism. However, it is hard to interpret this kind of null

As far as the grammar is concerned, it is not clear how syncretism by underspecification or accidental homophony would help in this construction. Agreement is normally sensitive to morphosyntactic features, not their phonological forms, so it is hard to imagine how the grammar would look ahead to the ultimate phonological form determined by Vocabulary Insertion, and fail to agree on the basis of that form. Even if the grammar could look ahead in this way (notice that even post-syntactic accounts of agreement assume that agreement must take place prior to Vocabulary Insertion), it is not clear exactly what it would look *at*.

An alternative possibility, then, is that the effect of (11b) is not really morphosyntactic ameliorative syncretism at all. Instead, it is a kind of grammatical illusion or parsing effect. The idea would be that (11b) as such is not really generated by the grammar, any more than (10b) or (10c) are. However, (10b) and (10c) contain multiple clear cues that the sentence is ungrammatical: the non-agreeing form is directly adjacent to something that unambiguously should be conditioning its agreement in (10b), and the theme bears clear accusative case that it should not have in (10c). In (11b), there are cues, but they are more subtle. Yes, the non-agreeing participle is adjacent to something that should trigger the agreement, but that thing *looks like* it could be something (an accusative) that might not trigger such agreement. It is really the larger syntactic context, not the morphology, that forces the speaker to assume that it is 'actually' nominative. As for the object itself, the non-agreeing form of the participle might lead one to think that it is accusative, which would be ungrammatical, but really, the form is compatible with it being nominative, as it should be, so there is no immediate clear problem there either. That is, in (11b), the string *var gefið röng lyf* 'was given the wrong medicine' *could* involve a nominative object, as it should as far as the construction is concerned, and it *could* involve an accusative object, as it should as far as the non-agreeing auxiliary and participle are concerned; it just takes more processing to 'realize' that it cannot be both of those things at the same time (Figure 1 repeated as Figure 2).
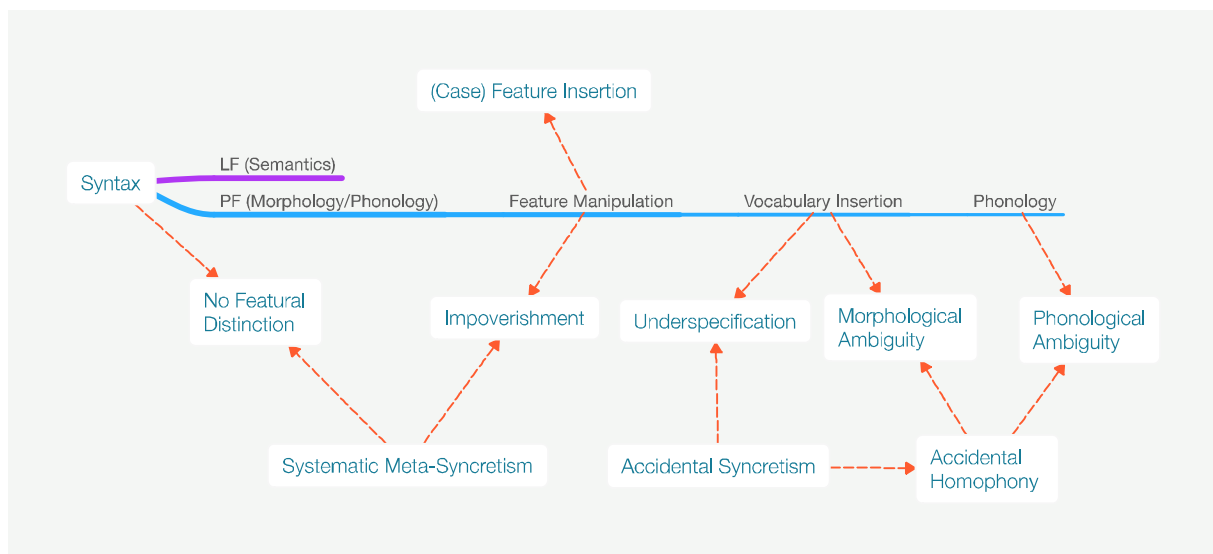

Figure 2: The structure of the grammar and sources of syncretism.

result with any confidence because two or more inflection classes, possibly with different properties, were included in each group.

To this point, it is perhaps relevant that even though the syncretism sentences were reliably higher than the unambiguous cases in Snorrason's (2021) study, the effect is not large, and the overall mean judgment of the syncretism construction is still quite low. Nevertheless, one should not rush to draw conclusions from the mean unless we have reason to think that speakers all have the same grammar in this domain. In reality we have good reason to think that there is genuine speaker variation, so it is worth remembering that around 16% of participants (101/651) accepted the syncretism cases but rejected the non-syncretic cases. We can therefore safely conclude that syncretism does have an effect on the acceptability of the construction, but further research is required to determine the exact source of that effect.

A similar paradigm to (10)–(11) is found below which shows the Applied Reflexive Passive (ARP) (Eythórsson 2008; Árnadóttir et al. 2011; E.F. Sigurðsson 2017).

(12) a. Það var fengið sér hamborgara.
     EXPL was gotten.DFLT REFL.DAT hamburger.M.SG.ACC
     'People had (themselves) a hamburger.'
  b. Það var fengið sér hamborgari.
     EXPL was gotten.DFLT REFL.DAT hamburger.M.SG.NOM
  c. Það var fenginn sér hamborgari.
     EXPL was gotten.M.SG.NOM REFL.DAT hamburger.M.SG.NOM
(13) Það var fengið sér bjór.
     EXPL was gotten.DFLT REFL.DAT beer.M.SG.NOM/ACC

The ARP has been gaining ground in Icelandic syntax. This passive morphology construction with a demoted agent involves an applied dative indirect argument and a direct argument in situ, normally in the accusative case, as in (12a). However, there are instances of speakers that prefer nominative (Thráinsson et al. 2013:58), either with a default non-agreeing participle, as in (12b), or an agreeing participle, as in (12c). And yet, forms like (12b) and (12c) turn out to be rather infrequent. Some speakers that we have consulted, however, accept none of the examples in (12) but find (13) better, where the case of the DP in the direct object position is syncretic between nominative and accusative and where the participle does not agree with it. This is unexpected, as at a more abstract level the direct object in (13) should either be in the nominative or accusative, even though it is syncretic for these two cases morphologically, and these speakers already accept neither nominative (12b) nor accusative (12a).

This is much like examples (10) and (11) above, except that the agreeing form that is standard in (10a) and (11a) is generally not available. That is, rather than (12c) being the standard form that all the other examples are compared to, here there is no standard form. The problem seems to be that some speakers do not want accusative on the object, because it is passive. But if it is nominative, then it should trigger participle agreement, which it is unable to do, most likely because dative reflexive intervenes (see H.Á. Sigurðsson & Holmberg 2008 and references therein on datives intervening for agreement). Syncretism seems to help in (13) because speakers do not have to mark the object as accusative, but there is no overt marking showing that it is nominative and therefore should trigger participle agreement. To put it

another way, the participle is acceptable because the object *might* be accusative, but the construction is acceptable because the object *might* be nominative.

Initial survey results from Snorrason (2021) do not show that sentences like (13), with syncretism, are judged as any more acceptable across the population than sentences like (12a), with unambiguous accusative. Sentences like (12b), with unambiguous nominative and no agreement, were judged reliably lower than the rest. However, this is not necessarily because syncretism never helps. Instead, it turns out that many speakers simply judged accusative as higher, and many (but not all) of these speakers were speakers who accepted the New Impersonal Passive construction. So for those speakers, syncretism does not help because (12a) is not degraded to begin with. When Snorrason (2021) looks closer, he finds that many speakers who reject the New Impersonal Passive in fact do reject sentences like (12a), but judge the syncretism sentences like (13) as acceptable. The possibilities mentioned above are possibilities in this case as well. It is also possible, however, that this case will pattern differently for some speakers because there is no standard option to fall back on. As above, further research is required to distinguish among different possible sources of syncretism.

In passing, we would like to briefly discuss a case which may be related to the Type 1 kinds of constructions, although it is actually a bit different, because it involves syncretism between an agreeing form and a default form of a participle. According to previous research, this kind of syncretism helps in one case, but not in another. The case in question involves "deponent" *-st* verbs: verbs that take the *-st* clitic, but still take a nominative subject and an accusative object. These verbs can be passivized in principle, but only in circumstances where we do not expect an agreeing participle. For example, the verb *forðast* 'avoid' can take a DP object or an infinitival object.

(14) a. María   forðaði-st manninn.
         María.NOM   avoided-ST man.the.ACC
         'María avoided the man.'
     b. María   forðaði-st að fara þangað.
         María.NOM   avoided-ST to go   there
         'María avoided going there.'

When (14a) is passivized, as in (15a), the result is unacceptable, because it is a personal passive, and the participle is expected to agree with the derived subject. When (14b) is passivized, as in (15b), the result is acceptable, apparently because it is an impersonal passive and the participle gets a default form. Notice also that when the New Impersonal Passive is used, the default non-agreeing participle is always used, and here too, the result is acceptable to speakers who accept this construction, as shown in (15c). Finally, *-st* verbs that take oblique objects, such as *krefjast* 'demand' (which takes a genitive object), allow passivization, because oblique objects retain their case in the personal passive and never trigger participle agreement; this is illustrated in (15d).

(15) a. *Maðurinn   var   forða-st-ur.
       man.the.NOM   was   avoided-ST-PTCP.AGR
       INTENDED: 'The man was avoided.'

   b. Það   var   forða-st   að fara þangað.
      EXPL   was   avoided-ST to go   there
      'Going there was avoided.'

   c. Það   var   forða-st   manninn.
      EXPL   was   avoided-ST man.the.ACC
      'The man was avoided.'

   d. Peninganna   var   krafi-st.
      money.the.GEN   was   demanded-ST
      'The money was demanded.'

Given that the default form of the participle is always the same as the neuter singular form, one might expect that choosing a nominative singular neuter noun would make the personal passive acceptable. However, it has generally been reported to be rejected.

(16) *Barnið   var   forða-st.
      child.the.N.SG.NOM was   avoided-ST
      INTENDED: 'The child was avoided.'

In this case, syncretism, even of the very systematic meta-syncretism kind, does not seem to help. However, there is one nominative-accusative -*st* verb that does seem to allow personal passives, and the apparent reason is intriguing and puzzling. The verb is *aðhafast* and means something like 'do'. What is interesting about this verb is that it seems to only take neuter quantifiers like *nokkuð* 'anything', *sitthvað* 'something', *eitthvað* 'something', and *ekkert* 'nothing'. Neuter quantifiers, like everything else neuter in Icelandic, are syncretic between nominative and accusative. But we know that they must be accusative because there is already a nominative subject, and these words do take distinct dative and genitive forms. Since these verbs only take objects that are always neuter and always syncretic for nominative and accusative, they can form personal passives: the participle can take the "agreeing" neuter singular form, which is also the default form.

(17) Við   aðhöfðum-st {sitthvað   / eitthvað   / ekkert}.
     we.NOM did-ST   {something.NOM/ACC / something.NOM/ACC/ nothing.NOM/ACC}
     'We did {something/nothing}.'
(18) {Sitthvað   / eitthvað   / ekkert}   var aðhaf-st.
     {something.NOM/ACC / something.NOM/ACC / nothing.NOM/ACC} was done-ST
     'Something/nothing was done.'

The generalization in Wood (2015:72) is that "passivization of an -*st* verb is possible only if the expected form of the participle is *guaranteed to be identical* to the default form of the participle" [emphasis added]. Despite the simplicity of this generalization, it is not at all clear how, or even if, this can be built into the grammar: what properties or mechanisms evaluate

the fact that such syncretism is 'guaranteed' with *aðhafast* 'do' but not with *forðast* 'avoid'?

We close this section by noting that it is not necessarily immediately apparent for every construction whether it is Type 1 or Type 2. Consider, for example, a construction which involves certain DAT-NOM verbs embedded under *láta* 'let', illustrated in (19) and (20).

(19) Ég læt mér   þetta   vel   líka.
    I   let myself.DAT this.NOM/ACC well like
    'I let myself like this.'

(20) a. Ég   læt mér   blómið   vel líka.
        I   let myself.DAT flower.the.NOM/ACC well like
        'I let myself like the flower.'

    b. Ég   læt mér   {bókin   / bókina}   vel   líka.
       I   let myself.DAT {book.the.NOM/ book.the.ACC} well   like
       'I let myself like the book.'

Some speakers accept examples like (19) or (20a), but find (20b) degraded no matter what case is chosen. (Some speakers accept (20b) with ACC.) One possibility is that it is a Type 1 construction, in that it is unclear whether to expect nominative or accusative. As the object of a dative-nominative verb, it should be nominative, but it appears close enough to an accusative-assigning verb (*láta* 'let') that nominative feels degraded. If the object is syncretic, no such conflict arises. Thus, it could be a kind of grammatical illusion effect of the sort discussed above. This would predict that any kind of syncretism should help. However, thinking of the analysis in Wood & H.Á. Sigurðsson (2014), another possible reason is that the object is determined to be nominative within the domain of the verb *líka* 'like', but it then moves into a position where it might be expected to be accusative (in the domain of *láta* 'let'). As above, the syncretism helps because either the speaker or the grammar does not have to make a choice, especially if the distinction between NOM and ACC is never actually encoded. This would make it more like a Type 2 construction, since the grammar wants to assign a single DP both nominative and accusative, and syncretism allows a DP to be both simultaneously. We turn now to a more detailed discussion of Type 2 constructions.

5   Type 2 Constructions

As mentioned above, Type 2 constructions have the property that the grammar seems to demand two distinct cases. This is frequently the result of a coordination structure where one DP serves as the argument to two distinct verbs, such as when verbs are coordinated, or in constructions like Right Node Raising (RNR), Conjunction Reduction (CR), Across-the-Board Movement (ATB), and Coordinate Object Drop (COD). It can also arise if one DP happens to end up in two case positions, such as with Free Relatives (van Riemsdijk 2006) (and see also one of the possible views of (19)–(20) above). However, Icelandic, for the most part, does not have Free Relatives of this sort, so we will not discuss that construction further.

Consider (21a), taken from Árnason (1991:74):[14]

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[14] The judgment annotations in (21a) and (22a) are our own interpretations of what the cited authors say.

(21) a. ??Strákurinn stal <DAT> og eyðilagði <ACC> bílinn.
      boy.the   stole <DAT> and destroyed <ACC> car.the.ACC
      'The boy stole and destroyed the car.'

  b. Strákurinn tók <ACC> og eyðilagði <ACC> bílinn.
      boy.the   took <ACC> and destroyed <ACC> car.the.ACC

  c. Strákurinn stal <DAT> og eyðilagði <ACC> bíl.
      boy.the   stole <DAT> and destroyed <ACC> car.ACC/DAT

In these examples, two verbs are coordinated (which could in principle be analyzed as RNR if it is really two VPs rather than two heads). The reason (21a) is not acceptable, according to Árnason (1991:74), is that *stela* 'steal' assigns different case, dative, from the verb *eyðileggja* 'destroy', which assigns accusative to its object. (Note that not all speakers find this equally bad, again showing that the nature of this effect warrants further research.) When *stela* 'steal' is replaced with a verb like *taka* 'take' that assigns accusative case, i.e., the same case as *eyðileggja* 'destroy', the example is perfectly acceptable; see (21b). A mismatch, as in (21a), becomes acceptable to speakers we have consulted when the form of the DP is syncretic for accusative and dative, as in (21c), where *bíl* 'car' (without a definite article) is used. Even though this kind of effect has been analyzed for a few languages (see, e.g., Hein & Murphy 2020) no in-depth analysis exists of Icelandic verb coordination or RNR, which has hardly been discussed more than in passing since Thráinsson (1979).

    Another construction that has been argued to be related to RNR, namely, Conjunction Reduction (CR) (see, e.g., Hudson 1976 who refers to RNR as backward CR), shows a similar case effect. The following is taken from Hálfdanarson (1984:9).

(22) a. ?Þingið   hefst á morgun og <DAT> lýkur   á laugardag.
        congress.the.NOM starts tomorrow and <DAT> finishes on Saturday

  b. Þingið   hefst á morgun og því lýkur   á laugardag.
      congress.the.NOM starts tomorrow and it.DAT finishes on Saturday

Examples like (22a) are often used as subject tests, i.e., to show the existence of oblique case subjects in Icelandic, and are thus assumed to be acceptable. The elided phrase (the gap) in the latter part of the coordinated clause must be a subject as the nominative DP *þingið* 'the parliament' is the subject of the first part. Hálfdanarson (1984:9), in his prescriptively oriented book, warns against the use of (22a) and suggests that speakers use a dative pronoun *því* 'it' instead of the gap, as shown in (22b). What is not currently known, as far as we know, is whether using a DP that is syncretic for nominative and dative case makes CR with mismatching cases better for some speakers. Such a DP could be *Sif*, a female name, which is syncretic for nominative, accusative and dative.

(23) a. Guðmundur   kom í gær   og <DAT> leiddist   ekki.
        Guðmundur.NOM came yesterday and <DAT> was.bored not
        'Guðmundur came yesterday and was not bored.'

  b. Sif   kom í gær   og <DAT> leiddist   ekki.
      Sif.NOM/ACC/DAT came yesterday and <DAT> was.bored not

The male name *Guðmundur* is not syncretic for nominative, on the one hand, and any other case, on the other. In (23a), *Guðmundur* is unambiguously nominative. *Sif*, a threeway ambiguous form, is used in (23b). We suspect that speakers who find (23a) degraded may accept (23b). However, there is no systematic study addressing the question, as far as we know.

The same effect can be found with ATB extraction, discussed earlier for wh-movement. Here we provide an example from Rögnvaldsson (1993) of topicalization (*ógna* 'threaten' takes a dative object whereas *vernda* 'protect' takes an accusative object):

(24) *{Þessum manni / þennan mann} ógnaði   Pétur en verndaði Jón.
      {this man.DAT   / this man.ACC} threatened Pétur but protected Jón
      'This man, Pétur threatened but Jón protected.'   (Rögnvaldsson 1993, ex. 7c)

Rögnvaldsson (1993:fn.5) writes, "Interestingly, however, such extraction is sometimes possible even though the two verbs assign different cases to their objects, but only if the two cases in question happen to be formally identical."

(25) ?Maríu   ógnaði   Pétur en verndaði Jón.
      María.ACC/DAT threatened Pétur but protected Jón
      'María, Pétur threatened but Jón protected.'   (Rögnvaldsson 1993, ex. 7c)

Interestingly, according to Rögnvaldsson (1993), this is different from Parasitic Gap constructions, which he says "are never fully acceptable in Icelandic". However, to the extent that they are possible, there seems to be no case-matching requirement, so syncretism does not seem to matter.

A similar pattern is found with Coordinate Object Drop (COD), a construction in Icelandic where a second object can be omitted in a coordinate structure only if the subject is also omitted, as illustrated with the following examples from Rögnvaldsson (1990).

(26) a. Jón tók   **bókina$_i$**   upp og rétti   mér *e$_i$*.
        Jón picked book.the.ACC up and passed me   <ACC>
        'Jón picked up the book and passed me (it).'
     b. *Jón tók   **bókina$_i$**   upp og Pétur   rétti   mér *e$_i$*.
        Jón picked book.the.ACC upp and Pétur.NOM passed me   <ACC>
        INTENDED: 'Jón picked up the book and Pétur passed me (it).' (Rögnvaldsson 1990:375)

Rögnvaldsson (1990) points out that examples are degraded when the DP in the first conjunct is accusative, and gap in the second conjunct is dative or genitive.

(27) a. *Ég þekkti **Pétur$_i$**   vel   og hjálpaði *e$_i$*   oft.
        I knew Pétur.ACC well and helped <DAT>   often
        INTENDED: 'I knew Pétur well and helped him often.'
     b. *Ég elskaði **þessa stelpu$_i$** og sakna *e$_i$*   mjög mikið.
        I loved that   girl.ACC and miss <GEN> very much
        INTENDED: 'I loved that girl and miss her very much.'   (Rögnvaldsson 1990:377)

Ximenes (2007) claims that some speakers find a difference between (28a), where *bíl* 'car' is syncretic between accusative and dative, and (28b), where *bílum* 'cars' is not. Note that these examples have subject drop in both conjuncts because (28a), originally taken from H.Á. Sigurðsson & Maling (2010:71; circulated in 2006), comes from a newspaper headline.

(28) a. ?Stal **bíl**$_i$ og eyðilagði ***e***$_i$.
       stole car.ACC/DAT and destroyed <ACC>
   b.??Stal **bílum**$_i$ og eyðilagði ***e***$_i$.
       stole cars.DAT and destroyed <ACC>

Interestingly, Rögnvaldsson (1990) does present an example which shows potential case-mismatching, where the overt object is accusative and the dropped object is nominative:

(29) Englendingar drekka **dökkan bjór**$_i$ og þykir ***e***$_i$ góður.
    Englishmen.NOM drink dark beer.ACC and find <NOM> good
    'Englishmen drink dark beer and like it.' (Rögnvaldsson 1990:375)

In this case, the overt object is not syncretic with nominative. However, if the silent object corresponds to a pronoun, the pronoun that would refer to the overt object would be syncretic between nominative and accusative; whether or not this latter point matters depends very much on the analysis of this construction.

    Type 2 constructions of the sort discussed in this section offer the opportunity to systematically compare all of the types of syncretism discussed earlier. While the Type 1 constructions discussed above happen to involve NOM/ACC syncretism, these constructions are not so limited. We can therefore compare not only NOM/ACC syncretism by impoverishment and NOM/ACC syncretism by underspecification, but also both of these for ACC/DAT syncretism, as well as the truly accidental cases of morphological ambiguity found with ACC/GEN syncretism in masculine plurals. Moreover, since Icelandic has verbs that take all of these cases as direct objects and as subjects, this can be done without the confound of changing syntactic function/position when case is changed. The following examples show this with respect to ATB-extraction, but the same kinds of examples can be constructed for the other Type 2 constructions discussed in this section.

(30) a. Hvaða borð myndi Jón vilja <ACC> og Ólu bjóðast <NOM> Impoverishment
      what table would Jón want <ACC> and Óla get.offered <NOM>
   b. Hvaða mynd myndi Jón elska <ACC> og Ólu leiðast <NOM> Underspecification
      what movie would Jón love <ACC> and Óla be.bored.by <NOM>
   c. Hvaða drottningu hefur Ari gagnrýnt <ACC> og Ýr bjargað <DAT> Impoverishment
      what queen has Ari criticized <ACC> and Ýr saved <DAT>
   d. Hvaða stað hefur Ari gagnrýnt <ACC> og Ýr bjargað <DAT> Underspecification
      what place has Ari criticized <ACC> and Ýr saved <DAT>
   e. Hvaða hesta hefur Már keypt <ACC> og Dís saknað <GEN> Morph. Ambiguous
      what horses has Már bought <ACC> and Dís missed <GEN>

In future research, we hope to determine whether there are systematic differences in the effects of these kinds of syncretisms in ATB constructions as well as the other Type 2 constructions mentioned here.

6   Conclusion

It is clear that there is a range of constructions in Icelandic where morphological case syncretism has an effect on acceptability, but until now, they have not been brought together. Even this paper has not attempted a truly exhaustive list, but instead focused on what is currently known about two types of constructions: Type 1 constructions, where syncretism helps because it is not clear which case to expect, and Type 2 constructions, where syncretism helps because the grammar seems to demand two distinct cases simultaneously. By looking at the structure of the grammar, we have identified at least five sources of syncretism, and outlined the different ways that those sources might have an effect on the acceptability and even grammaticality of a construction. Although little is currently known about how these distinctions play out in the grammar, we hope to have shown that this is a promising area of research that can shed light on a wide variety of constructions, the mechanisms of the syntax-morphology interface, and the structure of the grammar as a whole.

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