In defence of morphomic analyses

There has been some debate over the notion of ‘morphomes’, i.e. patterns of inflection without complete motivation outside of morphology. Morphomes are evidence for some autonomy of morphology. It has been claimed that there is “very little evidence for change which operates on morphology alone”, in other words that morphology does not change independently – and this has been used against the ‘morphomic’ approach. This paper presents evidence of inflection classes arising or being ‘strengthened’ in Scandinavian, classes that do not have any function outside of morphology. This is evidence of change, operating on morphology alone. One of the case studies also shows affixes being changed in order to align better with non-affixal inflection. This goes against the claim that non-affixal inflection be epiphenomenal. The paper also counters some other arguments against the morphomic approach. Notably, the “diagnostic problem” suggested for morphomes is hardly more severe than that involved in many other approaches to morphology. The paper also shows a (perhaps unexpected) convergence between the morphomic approach and strands of functionalism. While morphomic patterns may seem redundant and local, this is not unique to them. Many generalisations made by language users may seem redundant and local to linguists.

1 Introduction

This paper is a defence of the concept of “morphomes”, which goes back to Aronoff (1994). Some central examples of morphomes include inflection classes; we shall focus on how some diachronic changes pertaining to inflection classes in Scandinavian may be relevant for the

"morphome debate". The morphome has been considered fruitful by a number of scholars, but it has also come in for criticism (e.g. Bowern 2015, Bermúdez-Otero and Luís 2016, although the latter do not dismiss the approach the way Bowern does). The claim of this paper is that at least some of this criticism is unwarranted, and that Aronoff's notion of "morphomes" helps us highlighting facts that show some autonomy for morphology, facts that might have gone unnoticed otherwise.

The structure of the paper is as follows. In Section 2, the morphome concept is explicated. In Section 3, we look at some objections that have been raised. Some case studies from Scandinavian diachrony are presented in Section 4, some implications and possible objections are discussed in Section 5, and the conclusions are summarised in Section 6.

2 The morphome concept

Aronoff's (1994) monograph originates in part as a reaction. It is written in an intellectual climate in which constant efforts are made to reduce morphology to syntax, phonology or both. Spencer & Zwicky (1998, 1) liken the history of morphology to that of Poland; surrounded by mighty neighbours that split it between themselves repeatedly. Distributed Morphology (e.g. Halle & Marantz 1993) illustrates this climate. For adherents of that framework, it is, according to Spencer's (2019, xx) sceptical comment, "a little difficult to talk about morphology, since in an important sense there is no such thing" in Distributed Morphology. For Aronoff, by contrast, morphology is there as a real and important fact, an important facet of language. In order to argue this point, which seems less radical outside the Anglo-American 'mainstream', he launches the 'morphomic' approach and talks of 'morphomic' patterns. With a pointed formulation borrowed from an anonymous reviewer,

"the alternatives to morphomic thinking are" – in this intellectual context – "syntax-takes-care-of-everything" and "phonology-takes-care-of-anything".

In brief, morphomic patterns are morphological (more precisely inflectional) patterns without complete motivation from outside of morphology. Morphomic patterns include, among other things, inflection classes and cases of systematic formal identity not motivated by semantics, syntax or phonology. The concept of 'motivation' may be somewhat slippery, so it may need some clarification here. For example, an inflection class X of verbs is motivated by phonological properties if verbs ending in a certain vowel V tend to belong to X. If all verbs ending in V belong to X and no other verbs do, X is completely motivated by phonological properties.

An example of morphomic patterning is what Maiden (2018, 84 and elsewhere) calls "L-patterns": There is, for some Romance verbs, a distinctive root allomorph within some cells of the present tense, more specifically the 1. sg. present indicative and the whole of the present subjunctive. Those cells share a distinctive root allomorph that is not shared with the rest of the paradigm. Compare Table 1:

TABLE 1 IN HERE

Table 1. A Portuguese example of the Romance L-pattern, verb *ter* 'have'. The shading is meant to show the similarity with an 'L'.

1.sg.	2.sg.	3.sg.	1.pl.	2.pl.	3.pl.	
tenho	*tens*	*tem*	*temos*	*tendes*	*têm*	Prs. Ind.
tenha	*tenhas*	*tenha*	*tenhamos*	*tenhais*	*tenham*	Prs. Sbjv.

(The sequence *nh* is pronounced /ɲ/. See 3.2, 5.2 and 5.3 below for further discussion.)

It is hard to see any good reason for this formal identity – or any natural class at work here. Yet the identity in form has probably been noticed by speakers, since abundant diachronic evidence indicates productivity for the L-pattern. Independently of the particular material that may "fill" the particular cells, there is a pattern of identity. Another example is the so-called N-pattern in Romance, where the forms of the first, second, and third persons singular, and of the third person plural, in the present indicative, present subjunctive, and imperative, share formal characteristics not found elsewhere in the paradigm of the verb.

Aronoff calls morphomic patterns "pure form" and even (1994, 46) "useless". It does indeed seem useless for purposes outside of morphology that the shape of one particular member of the paradigm should signal, as it were, the shape of another member of the paradigm. However, given the generality and diachronic persistence and productivity of the L-pattern and the N-pattern, we are dealing with a very real "intra-morphological meaning", with "morphological signata" (cf. Carstairs-McCarthy 1994, 2002 et passim). If one uses the concepts of "index" and "indexical function" as done by other scholars (e.g. Andersen 2010, Nielsen 2016), the shape of the 1. sg. is an "index" of the shape of e.g. the 2. pl. In seeing "indexes" or "functions" in this way, there is a convergence between the morphomic tradition and the functionalist tradition (cf. 5.3 below).

Admittedly, a cautionary note is in order on such words as "signal". If a particular verb ends in /ær/ in the present tense in the Grenland dialect of Norwegian (see Table 3 below) the past of that same verb will end in /a/. Yet when a Grenland speaker attaches a present tense ending /ær/ to a verb stem, her aim is obviously not to "signal" that the past tense ending of that verb will be /a/, the way a station-master might choose the red light in order to signal that the northbound train must wait. Rather, we are dealing with acquisition strategies. When confronted with two different suffixes, such as the present tense suffixes /ær/ and /er/, the human mind will look for "pegs" which these suffixes can be hanged on to, so to speak (cf.

e.g. Carstairs-McCarthy 1994, 2001, 2010). The mind will then latch on to the difference that /ær/ links to /a/, while the ending /er/ links to something else. So rather than saying that /ær/ should "signal" the past tense shape of the verb, we may speak of /ær/ having an "intra-morphological meaning" (Carstairs-McCarthy 1994), or say that /ær/ has the implication to /a/ as part of its *signatum* (in the sense of Carstairs-McCarthy 2002), or that it is an "index". Whatever term is chosen, such implications are part of the knowledge that speakers have of their language, and it is a part that morphological models should reflect. See further 3.1 and especially 5.3 below.

Morphomic patterns, then, are patterns in inflectional morphology – "morphological templates" – whose motivation cannot be reduced to factors outside of inflection. The claim that there is a morphomic level is merely a claim that morphology has patterns of its own; neither fully reducible to nor fully predicted by anything outside of morphology.

This is a useful antidote against "syntactocentrism". Jackendoff (2002, 107 – 111) characterises syntactocentrism in two ways: Firstly, it is the idea that "syntax is the only generative component, that is, the only component that explicitly gives rise to combinatoriality". Jackendoff calls the idea "purely an assumption" for which "no argument has ever been offered". Secondly, Jackendoff (2002, 111, footn. 2) argues that, sociologically, "[u]nfortunately, along with the formal syntactocentrism of the framework has come a syntactocentrism of outlook in many practitioners, a reluctance to explore solutions in other than syntactic terms", which has "lead to criticism from every quarter".

The emphasis on morphomic patterns can lead to an emphasis on the arbitrariness of the sign, on "un-natural" morphology. Within many other traditions of linguistic thinking, there has been an emphasis on naturalness in morphology. In emphasising unnaturalness, the

morphomic tradition continues the tradition from "word-and-paradigm" models.[1] However, there are also affinities between the morphomic approach and functionalist linguistics (cf. 3 and 5.3 below).

3 On some recent objections against morphomic patterns

3.1 Background

Ideas of autonomous morphology or morphomic patterns have been seen as promising by many morphologists working on inflection and diachrony, in particular in the Romance languages, e.g. by Maiden (2005, 2011a, 2011b, 2013a, 2013b, 2016a, 2016b, 2017, 2018), Loporcaro (2013), Esher (2013, 2015a, 2015b), O'Neill (2013), Smith (2011). The ideas have also been discussed for other languages, such as German (e.g. Demske 2008, Carstairs-McCarthy 2008, Dammel 2011, Nübling 2016, 287), English (Aronoff 1994, Blevins 2003), Scandinavian (Enger 2013, 2014), Greek (Sims-Williams 2016), and Kayardild (Round 2016).

However, in a fairly recent handbook chapter, Bowern (2015, 245) dismisses ideas about the persistence of autonomous structures in diachrony on the grounds that they

> "are not widely accepted in historical morphology. Anderson (2011), for example, provides a detailed critique of Maiden's analysis of Rumantsch data and argues that the patterns which argue for autonomous morphology can also be described by straightforward phonological conditioning. A further curious paradox is that

[1] It is tempting to ask if those linguists that are most sceptical towards unnaturalness in morphology are equally sceptical towards unnaturalness in syntax. Since many of them are not, one may wonder if 'syntacto-centrism' may have to do with this difference.

> discussions of morphological autonomy have tended to stress its stability; even while much work on morphological instability has appeared (particularly under the study of analogical change)."

In my view, this conclusion is weakly motivated. What is not "widely accepted" may still be right, and it is hard to know what is "widely accepted" in linguistics these days. Nearly twenty years ago, Matthews (2001, 151) observed that "the discipline is no longer unified", but fragmented. Incidentally, most historical morphologists that I happen to know accept the basic claims of the autonomous/"morphomic" approach (which is not to say that they all find it interesting).

We cannot go into all the details of Savognin (a Surmiran variety of Romansh [Rumantsch]) here. Suffice it to say that, despite what the quote above may seem to indicate, Anderson (2011) does not claim that patterns used to argue for autonomous morphology *in general* can be described by phonological conditioning. His claim is that *one* specific alternation in Savognin should be described as phonologically conditioned rather than by reference to a morphomic pattern. Anderson accepts the idea of autonomous morphology.[2]

In short, Bowern's two first arguments for dismissing autonomous morphology in diachrony are insufficient. The third point is more interesting. In/stability is an important issue in historical morphology, and the "stability of morphomes" may perhaps seem just a fancy new name for the familiar conservatism of morphology. However, the "curious paradox" pointed out by Bowern is addressed by Maiden (2013), who has suggested that analogical levelling and retention of morphomic patterns are two sides of the same coin, as it were:

[2] Anderson's critique is not "generally accepted", either; Maiden (2011b) replies in the same volume. (Anderson 2013 has replied further, and Maiden 2017 presents another rejoinder.)

> Morphomes typically involve allomorphy, and it is well known that the historical fate of allomorphy is often for it to undergo levelling. It is also generally accepted that one of the determinants of levelling is a fundamentally semiotic principle commonly known as 'Humboldt's Universal' …: "Suppletion is undesirable, uniformity of linguistic symbolization is desirable: both roots and grammatical markers should be unique and constant". …This principle predicts that levelling will be favoured …. by the universal preference for a maximally iconic relationship between meaning and form.
>
> **Such levelling and the diachronic coherent maintenance of morphomes are** in a complementary relationship; they are, **at bottom, manifestations of the same thing**. Both minimize the discrepancy between form and meaning, and make for a maximally predictable relationship between them. The diachronic maintenance of morphomes is the way in which that predictability is achieved if allomorphy is not levelled out. It might be seen as an alternative 'Plan B', if 'Plan A', namely levelling, should fail. (Maiden 2013, 519, my emphasis)

There are similar ideas in previous literature.[3] This deserves more attention.

As for the conservatism issue, there is more to be said. Suppose that actual forms in cells are changed while the more abstract 'template' is not. Say, for example, that all and only the cells in the L-pattern have their concrete forms changed, but in a fashion that makes them

[3] Hock (1991, 235–36) argues that **both** the well-known tendency for (root) allomorphy to be reduced (also known as Mánczak's second tendency), by levelling, **and** the tendency for more overt marking (Kuryłowicz's first law) are "important and equally valid, general tendencies in analogical change", "both […] motivated on the meaning side of language, but by different aspects of meaning" (cf. also Gaeta 2010, 154f for what seems a related idea).

all ‘hang together’, just as they did before the change. Such a change shows the morphomic pattern, the template, being somehow real for the speakers. Maiden (2016a, 2018, 13 et passim) has in fact presented many examples of this kind. Since innovations can hardly count as manifestations of conservatism, the “stability of morphomes” is about something more.

3.2 An empirical difference

In this connection, Bowern’s claim (2015, 249) that there is “very little evidence for change which operates on morphology alone” is interesting. The claim has the advantage of making the discussion empirical: According to the morphomic tradition, new independently morphological patterns can arise, viz. there can arise new patterns of no use to anything outside of morphology.[4]

This may need clarification. For example, if speakers know the stem of a particular Romance verb in the 1.sg. and that it belongs to the L-pattern, they will also know that this same verb will have that stem in the 2. pl. In other words, the shape of the verb stem in the 1. sg. has the “function” of “signalling” what the shape of that verb will be in the 2. pl. This “function” may not be terribly useful outside of morphology, witness Aronoff’s term “useless”.

An alternative point of view is that this function is semantic or semiotic by being indexical (e.g. Anttila 1975, Nielsen 2016). That raises the large issue of what ‘semantics’ is; it may be worth pointing out that Aronoff’s conception of meaning is narrower than the

[4] In a vein similar to Bowern, Wurzel (1984) argued that morphology always is “reactive” (rather than active). By contrast, Dressler (2003, 467), Carstairs-McCarthy (2010, 51), Enger (2013, 16, 19), all argue that morphology sometimes can change “on its own”.

functionalist tradition represented by e.g. Nielsen (2016). For present purposes, however, the vexed issue 'the meaning of "meaning"' does not need further discussion. As noted in 3.1, Maiden (2013) has suggested that morphomes serve a semiotic function. Also Carstairs-McCarthy (2010, 226) sees "a precise and deep-rooted cognitive function for many and perhaps all the kinds of allomorphy that Aronoff draws attention to". In short, the differences between the morphomic perspective and functionalist ones are less important than the similarities, for present purposes, cf. also Section 5.3. (Both Carstairs-McCarthy 2002, who is close to the former, and Nielsen 2016, representing the Danish brand of the latter, posit *signans-signatum* relations in allomorphy, for example.)

Anyway, we have reached a point where Bowern's criticism and the morphomic approach may be tested empirically. According to Bowern, there is very little evidence for change which operates on morphology alone; according to the morphomic approach, by contrast, we expect to find patterns arising where an element may acquire a new intra-morphological "function", such as to imply what another element in the paradigm may look like. For Romance, Maiden (2016a, 2018 and elsewhere) has presented a wealth of examples; we now turn to a number of Scandinavian examples that are problematic for Bowern's claim.

4 Some examples from Scandinavian

We shall now look at some examples where it seems useful to talk of morphomic patterns; evidence for change which operates on morphology alone, in my view.

4.1 A new inflection class in Norwegian, Swedish and Faroese

TABLE 2 IN HERE

Table 2. New inflection class for verbs, innovation in boldface (see further Dammel 2011)

Gloss	Infinitive	Prs. 3.sg.ind.	Past 3.sg.ind.	P.ptc.masc.	
Throw	kasta	kastar	kastaði	kastaðr	Old Norse
Reach	ná	nár	náði	náðr	Old Norse
			▼	▼	
Throw	2kaste	2kaster	2kaste	2kaste	(East Nw.)
Reach	no:	no:r	2no**de**	no**d**	(East Nw.)

In the description of Old Norse, it is traditional to group *kasta* ‘throw’ together with *ná* ‘reach’. The idea is that they inflect in the same way; both get *-ði* in the past, for example. The two inflect identically in Modern Icelandic and Danish. For Modern Norwegian, Swedish and Faroese, by contrast, the tradition posits two classes, thus saying that the two inflect differently. In the East Norwegian example, *kaste* takes the suffix /e/ in the past tense and /e/ in the participle, *nå* takes /de/ and /d/.

In order to appreciate the data in Table 2 fully, it is important to realise that the regular development of Old Norse /ð/ in this dialect (as in nearly all Norwegian dialects) is that it is lost. Compare *skaði* ‘harm, damage (noun)’ > /ska:e/, *hlaði* ‘barn’ > /lø:e/, *síða* ‘side’ > /si:e/. If only ‘sound law’ had prevailed, *náði* ‘ought to’ have been changed into /no:e/. (In some East Norwegian dialects, the past tense of *dø* /dø:/ ‘die’ is /dø:e/.) Thus, East Norw. /node/ clearly cannot be due to regular phonological development; /kaste/ can and presumably is, since /ð/ is elided, and final unstressed /a, i/ as a rule both become /e/, and a sequence of two /e/s would merge two one.

The current past and participle suffixes found in /node/ and /nod/ in Table 2 are due to a reanalysis first found in verbs such as Old Norse *klæða* ‘dress’. Its past tense 3.sg. was *klæddi*. By traditional accounts, this Old Norse past tense form is due to *klæð-* (stem) + *ði*

(suffix) serving as input to an independently motivated phonological rule to the effect that *ð+ð>dd*. However, once *ð* is lost between vowels, the stem *klæ-* no longer contains a *ð*, and so past tense *klæddi* is open to a reanalysis as *klæ- + ddi*. This new inflectional suffix /de/ has then spread analogically to verbs like *nå*//no:/, since its stem and its infinitive was very similar to *klæ-*.

By this traditional account, the rise of the new *nå*-class is thus related to a phonological change, the loss of the consonant /ð/ (cf. Dammel 2011, 225ff); a loss found in (by and large) Norwegian, Swedish and Faroese, but not in Icelandic or Danish. Yet the new class clearly did not have to arise because of by this innovation. In Norwegian, it would have been perfectly possible from the phonological point of view to mark past tense merely by means of a vowel (witness the morphologically irregular /dø:e/, mentioned above).

It seems fair to say that the traditional account (summarised and well expanded by Dammel 2011) posits a new class primarily because of the affixes. However, the vowel shortening found in the past and the participle (cf. infinitive /no:/ vs. past /node/) in Table 2 is also characteristic of this class; this is a reflex of an older stage in which vowels were shortened before consonant groups. Thus, the current vowel shortening is a morphological rule reflecting an older phonological rule; a case of morphologisation.[5]

[5] As a reviewer rightly observes, there is loss of /ð/ also in other verb classes, but the point is that the *nå*-class does not arise in varieties of Scandinavian where there is no such loss (cf. Dammel 2011, 238 et passim). The same reviewer also points out, correctly, that there is no vowel shortening in this class in some Swedish dialects of Northern Sweden and Finland (Norrland and Åboland). I can only speculate that these dialects lost their rule of vowel shortening before consonant groups earlier, before they lost /ð/.

Today, the new *nå*-class is, synchronically, largely motivated by an "extra-inflectional" (a useful term from Nübling 2008) property; its members end in a long stressed vowel in the infinitive. If a verb ends in a long vowel in the infinitive in current East Norwegian, it will probably have the suffix /r/ in the present; it will probably inflect like *nå*. Yet the motivation is not complete. There are also strong verbs that end in a vowel in the infinitive, e.g. /fo:/ *få* 'get', the present tense of which is /fo:r/ (similar to *nå*), past tense /fik/ or /fek/ (different from *nå*). There is an indexical relation here. The suffix /r/ "says" "the stem on my left is a) certainly monosyllabic, ending in a stressed vowel and b) probably a weak verb". The change described in Table 2, then, counts as a morphomic pattern arising. There is certainly motivation for the new class, but the motivation is not complete (not all verbs that have a monosyllabic infinitive inflect like *nå*).

Adherents of the claim that there is "very little evidence for change which operates on morphology alone" will have to account for examples like this one. As emphasised by Dammel (2011, 77 et passim), inflection classes are not exposed only to *Abbau*, loss – which is what one might expect, given claims like Bowern's. Certainly, inflection classes are often lost, but often they are not, and more drastically, they can be exposed to *Ausbau*, i.e. they can be built, as with the new class we have just witnessed, or they can be exposed to *Umbau*, re-structuring, as in our next example (cf. also Stump 2015, 130).

4.2 Strengthening of inflection class in Swedish and in Østfold

The next example is not one where a new class arises, but where an existing one is strengthened, as it were.

4.2.1 Swedish

The extension of a specific word tone (aka toneme) to an inflection class for ("standard, Uppsvenska/Stockholm") Swedish verbs is both an indexical relation strengthened and strengthening of a class that already exists.[6]

TABLE 3 IN HERE

[6] The Swedish described here is the 'standard' in Sweden, not in Finland, where word tone is a different issue.

Table 3. An inflection class for verbs is “strengthened” (word tone change), innovation in boldface

Gloss	Infinitive	Present	Past	Past ptc.		
throw	2kaste	2kastær	2kasta	2kasta	(Grenland Nw.)	Weak I
think	2teŋke	2teŋker	2teŋte	teŋt	“	Weak IIa
build	2byge	2bygger	2bygde	bygd	“	Weak IIb
scream	2skri:ke	1skri:ker	skreik	2skri:ki	“	Strong
throw	2kasta	2kastar	2kastade	2kastat	Sw.	Weak I
think	2täŋka	**1**täŋker	2täŋkte	täŋkt	Sw.	Weak IIa
build	2byga	**1**byger	2bygde	bygd	“	Weak IIb
scream	2skri:ka	1skri:ker	skre:k	2skri:kit	Sw.	Strong

(See further Enger 2014)

The presentation in Table 3 is completely a-historical; Swedish has certainly not developed from Grenland Norwegian, but Grenland Norwegian illustrates an older stage, historically. The point is that in Grenland Norwegian, word tone 2 (or toneme 2) in the present tense correlates with the verb being weak. In Swedish, those verbs that have *-te* (or *-de*) in the past tense, e.g. *tänka* ‘think’, *bygga* ‘build’ have had their word tone changed. They now stand out even more from other weak (class I) verbs. Thus, word tone 1 has been better aligned with the suffix /er/. In Grenland, the two do not always correlate; in “standard” Swedish (cf. footnote 10), they do. This change represents an autonomously morphological innovation (see further Enger 2014). There is no phonological reason for the Swedish change. An existing

morphomic pattern is re-inforced, somewhat like Romance cases studied by Maiden (e.g. 1992, 2005): Previously, the *tänka+bygga* class stood out from the other weak verbs by having the suffix /er/; after the change, they also stand out from other weak verbs by their word tone.

4.2.2 Østfold Norwegian: Trøgstad, Askim, Spydeberg

The Norwegian dialects of Trøgstad, Askim, Spydeberg (henceforth TAS), spoken in Østfold, close to the Swedish border, represent the inverse change of Table 3, as it were. In Swedish, the alignment between the suffix /er/ and word tone 1 in the present is improved, in TAS, the alignment between the suffix /ær/ and word tone 2 has been improved, as shown in Table 4.

TABLE 4 IN HERE

Table 4. An inflection class for verbs is "strengthened" (word tone change) in Trøgstad, Askim, Spydeberg (=TAS), innovation in boldface

Gloss	Infinitive	Present	Past	Past ptc.		
throw	2kaste	2kastær	2kasta	2kasta	(Grenland Nw.)	Weak I
know	2çene	2çener	2çente	çent	(Grenland Nw.)	Weak II
scream	2skri:ke	1skri:ker	skreik	2skri:ki	(Grenland Nw.)	Strong
Gloss	Infinitive	Present	Past	Past ptc.		
throw	2kaste	2kastær	2kasta	2kasta	TAS	Weak I
know	2çene	2çen**ær**	2çente	çent	TAS	Weak II

scream	2skri:ke	1skri:ker	skreik	2skri:ki	TAS	Strong

The description in Table 4 is a-historical; TAS has not developed from the Grenland dialect; it is just that the Grenland dialect illustrates an older stage, historically. The suffix /ær/ is linked more tightly to word tone 2 after the change (cf. also Hoff 1946, 275, 341). The suffix is also linked more tightly to weak inflection – but then, 'weak' is a morphomic entity; it is an inflection class.[7]

4.2.3 Theoretical implications

From a theoretical point of view, the change in Table 4 may be even more interesting than the Swedish one described in Table 3. The reason is as follows. In line with a reductionist and non-morphomic attitude towards morphology, Bye and Svenonius (2012) argue that non-concatenative morphology is an epiphenomenon. Basically, they wish to reduce non-concatenative phenomena to phonology; affixes, which Bye and Svenonius take to be syntactic, are the 'real' markers. The TAS change then becomes problematic, because the affix is changed so as to conform to the word tone (toneme). In other words, the allegedly epiphenomenal tail of non-affixal inflection wags the putative dog of affixal inflection. In my view, this is yet another example indicating that a purely affixal model of morphology will

[7] Drawing on Nilsen (2012), Sameien et al. (2018) show that the distinction 'weak vs. strong' in Norwegian has some semantic motivation (in addition to the well-known phonological motivation), but they do not claim that the motivation is complete; the distinction remains morphomic, in that sense.

not do (cf. e.g. Wurzel 1989, Anderson 1992, ch. 3, 2017, Carstairs-McCarthy 1994, 2010, Stump 2001, ch. 1, Blevins 2016, for extensive arguments).

Also Anderson (2017, 11) argues, in passing, that "the 'phonological' representations and adjustments these authors [Bye and Svenonius 2012] assume are so abstract as to be unrecognizable as such". This argument is reminiscent of the criticism set forward by Lass (1984, 214) against an analysis framed within what he called "Orthodox Generative Phonology": "the 'phonological solution' is really a fake".

Criticising morphomic approaches, Bermúdez-Otero and Luís (2016, 319 – 329) argue that there is a "diagnosis problem" for morphomes. Hopefully, the preceding paragraphs show why this argument runs the risk of being right by definition: For decades, linguists have not agreed upon what phenomena should be treated as morphology. In this respect, the discussion over morphomes does not represent anything new whatsoever. It follows that there is equally a "severe diagnostic problem" for many of the alternatives to morphological (including morphomic analyses), also many analyses framed in putatively phonological terms (cf. Anderson's scepticism towards Bye and Svenonius above).

Furthermore, the scepticism towards morphomic analyses has been especially clear among scholars that prefer morpheme-based rather than word-based approaches. It then becomes relevant that a "severe diagnostic problem" clearly holds for the unit "morpheme". My claim is not that there necessarily is anything objectionable with the morpheme as such. The problem is rather that the morpheme has been defined in a number of very different ways (see e.g. Mugdan 1986, Matthews 1993, Carstairs-McCarthy 2005, and Blevins 2016, who all document this). For that reason alone, morphemes should not be allowed to "enter linguistic theory unquestioned" (cf. Zingler 2017, 88). More seriously, in at least some currently influential frameworks, such as versions of Distributed Morphology, the morpheme is defined

practically vacuously, for example as an “abstract syntactic unit”. Such a definition is a far cry from the “empirically corrigible” ideal that Bermúdez-Otero and Luís (2016, 320) advocate.

4.3 Neuters in transition

We now turn to the neuters.

4.3.1 A new inflection class for neuters in East Norw.[8]

TABLE 5 IN HERE

Table 5. New inflection class for neuters, East Norwegian

Gloss	Indef. Sg.	Def. Sg.	Indef. Pl.	Def. pl.	
house	hús	húsit	hús	húsin	Old Norse
table	borð	borðit	borð	borðin	
fence	gerði	gerðit	gerði	gerðin	Old Norse
ditch	díki	díkit	díki	díkin	
			▼	▼	
house	hʉ:s	1hʉ:se	hʉ:s	2hʉ:sa	(East Nw. I)
table	bu:ɽ	1bu:ɽe	bu:ɽ	2bu:ɽa	
fence	jæ:ɽe	2jæ:ɽe	2jæ:ɽe**r**	2jæ:ɽa	(East Nw.I)
ditch	di:ke	2di:ke	2di:ke**r**	2di:ka	

(See further Enger 2014)

[8] It is simplistic, here and elsewhere, to talk of East Norwegian as a monolithic entity, but it does no harm for our purpose.

A new suffix has been introduced into the indefinite plural of some bisyllabic neuters, exemplified by the nouns 'fence' and 'ditch'. This example shows independent change, operating on morphology alone – despite Bowern's claim.[9] The new suffix in /2jæːɽe**r**/, /2diːke**r**/ has as part of its intra-morphological meaning, its *signatum* (cf. footnote 7) that "the neuter stem on my left is like *dike* and not like *hus*".

As pointed out by Papazian (2002), it would have seemed simpler, *a priori*, just to keep the zero suffix for the inflection of all neuters. The change in such neuters as /2jæːɽe**r/,** /2diːke**r/** is usually seen as analogy from a central inflection class of feminines, on the grounds of comparative evidence from other dialects. [10] Be that as it may, this is clearly a change which "operates on morphology alone".[11]

[9] One may ask if this really is a new class arising, or just an old one being "strengthened" (cf. Enger 2014 for discussion). For present purposes, this question is immaterial. Either way, we are dealing with an independently morphological innovation.

[10] This may be unexpected, for in many Norwegian dialects, the suffix traditionally associated with masculine nouns often "ousts"' other suffixes (see e.g. Enger 2011, 191–192 for examples and references). The reason why the case at hand differs is presumably that the typical weak noun, which is bisyllabic in the indefinite singular, is feminine.

[11] Admittedly, one may also see the innovation as a manifestation of "Humboldt's universal"; of the tendency for the plural to be marked. Yet we need not see that universal and morphomic strategies as opposites. As noted in 3.1 above, Maiden has argued that the two ultimately are related.

4.3.2 A new class of neuters in Swedish

Changing the indefinite plural of polysyllabic neuters is not restricted to East Norwegian. A number of similar, but not necessarily identical, changes are found in Swedish, cf. Kågerman (1985). Let us first look at 'standard' Swedish, compare Table 6:

TABLE 6 IN HERE

Table 6 New neuter suffix in older 'standard' Swedish[12]

	Gloss	Indef.sg.	Def.sg.	Indef.pl.	Def.pl
(Sound law)	ditch	2di:ke	2di:ke	2di:ke	2di:ken
Morphological change	ditch	2di:ke	2di:ke	2di:ke**n**	2di:ken

(See further Kågerman 1985)

This innovation targets the same nouns as does the introduction of /r/ in East Norwegian, but it has also targeted other neuters, more specifically those monosyllabic neuters that end in a long vowel, compare *bi* 'bee', the plural of which is now *bin*.

The Swedish indefinite plural suffix /n/ is another than East Norwegian /r/ in Table 5, and the new /n/ in /di:ken/ is not due to analogy with the feminines, in the way /r/ is in East Norwegian. We cannot go into all the historical details, but it seems that the new indefinite plural suffix /n/ has developed out of the definite plural suffix in the neuters in the first place.

[12] Later on, the suffix /t/ has been inserted in the definite singular; and an /a/ in the definite singular. My concern here is with the /n/ in the indefinite plural, which clearly comes first (cf. Kågerman 1985).

Interestingly, indefinite plural /en/ was apparently found for a while also on neuters like *hus*. The Österbotten dialect in Finland still represents this stage; *hus* and *dike* inflect in the same way.[13] In Nyland in Finland, as in the standard, the two have been differentiated, but only in the indefinite plural. In e.g. Eskilstuna, Central Sweden, we find *dikena* differing from *husen*, at least for a number of speakers.

The Swedish change is therefore particularly interesting, in that speakers of a number of dialects seem to "choose" to keep *hus* and *dike* apart after a period of vacillation in which both *husen* and *diken* could be found in the indefinite plurals of them both.

So the end result in Table 6 is rather similar to that of Table 5, in that a new indefinite plural has come up. In both cases, bisyllabic neuters like *dike* have acquired a new suffix in the indefinite plural, one that sets them apart from monosyllabic neuters like *hus*. A new inflection class comes up; one that only serves to indicate the shape of the noun. The fact that speakers not only could arrive at this result by different ways, but also did arrive there by different ways, testifies to the significance of the process, which, again, seems to constitute clear evidence of change operating on morphology alone.

A number of changes have happened in Swedish neuters of the *dike* type after the state described in Table 6; but they are not so relevant for my point.

4.3.3 Inflectional parsimony

TABLE 7 IN HERE

[13] I am grateful to Viveca Rabb for help with data and analyses on this point.

Table 7 Change in neuters in the Oslo dialect

Gloss	Indef.sg.	Def.sg.	Indef.pl.	Def.pl.
house	hʉ:s	hʉ:se	hʉ:s	hʉ:sa
			hʉ:ser	hʉ:sene
table	bu:ɽ	bu:ɽe	bu:ɽ	bu:ɽa
			bu:ɽer	bu:ɽene
fence	jæ:ɽe	jæ:ɽe	jæ:ɽer	jæ:ɽa
				jæ:ɽene
ditch	di:ke	di:ke	di:ker	di:ka
				dik:ene
			▼	▼
house	hʉ:s	hʉ:se	hʉ:s	hʉ:sa
table	bu:ɽ	bu:ɽe	bu:ɽ	bu:ɽa
fence	jæ:ɽe	jæ:ɽe	jæ:ɽer	jæ:ɽene
ditch	di:ke	di:ke	di:ker	dik:ene

(See further Larsen 1907)

Word tones are kept entirely out of Table 7 and this section, for expository reasons. The point of interest here is only in the affixes.

The background for the variation in the plural cells in the first part of Table 7 – /hʉ:s/ alongside /hʉ:ser/, /bu:ɽa/ alongside /bu:ɽene/ – is a case of dialect mixture (Larsen 1907, 105); Oslo is a place where different varieties have met. For historical reasons, there has been a period in which there were two possible alternatives for each cell in the plural. The norm for paradigms is for there to be only one form in each cell; i.e. “inflexional parsimony” (Carstairs 1987, 31). What happens next is that inflexional parsimony is restored – variation is

eliminated. A priori, the simplest way to do so would be to choose one set of suffixes for all the neuters. Yet that is not what speakers do. Rather, they re-shuffle the suffixes so that one set signals a bisyllabic stem, another a monosyllabic one – thereby arriving at a system similar to that in Tables 5 and 6. This is "useless", for anything outside of morphology, but then, affixes can "forage", as it were, for syntagmatic or paradigmatic factors that may serve to differentiate them from their potential rivals, cf. Carstairs-McCarthy (2001, 10).

4.4 Body part nouns

4.4.1 Ears and eyes

Even for a speaker of East Norwegian (like me) who assigns /ene/ to most bisyllabic neuters, and says /2jæːɽene/ 'the fences', /2dikːene/ 'the ditches', as in Table 7, two neuters may still retain the old suffix /a/. These are the words meaning 'eye' and 'ear'[14], compare Table 8:

TABLE 8 IN HERE

Table 8 Ears and eyes are relics in Oslo (cp. Table 7 for background)

Gloss	Indef.sg.	Def.sg.	Indef.pl.	Def.pl.
fence	2jæːɽe	2jæːɽe	2jæːɽer	2jæːɽene
ditch	2diːke	2diːke	2diːker	2dikːene
eye	2æve	2æve	2æver	2æ̲v̲a̲
ear	2øːre	2øːre	2øːrer	2øː̲r̲a̲

[14] In the terms of Wurzel (1984), while all other neuters have changed to *Grundformflexion* base-form inflection, then, these two remain with *Stammflexion* stem inflection.

Underlined: Relics

Dammel's (2011) term *Kleinstklasse* 'minimal class' seems well-suited for the neuters 'eye' and 'ear' in Table 8, for they are the only two that inflect in this way. In Old Norse, there were roughly a dozen bisyllabic neuters, sometimes called "weak", standing out from the rest. Two of them meant exactly 'eye' and 'ear'. For them, new irregularity is arising – not because anything happens to them, but because all other bisyllabic neuters change.

In some other varieties of Norwegian, in the West, the "opposite" is happening: the suffix /ene/ is introduced only or mainly for two neuters, 'eye' and 'ear' (cf. Enger 2012, 97). That is an innovation, targeting – at least at first – only those two nouns. It is unsurprising, cross-linguistically, that names of body parts occurring in pairs or sets get irregular morphology. We return to this in 4.4.2, but note that there is no sign of other so-called weak neuters from Old Norse being treated this way in Oslo. Yet there are irregularities arising in partly the same place over again, useless though it may seem. The outcome is "heteroclisis" or "mixed inflection" arising (see further Stump 2006, Maiden 2009). Clearly, this is independent morphology.

4.4.2 Teeth and hands

Another innovation, pertaining to the nouns for 'tooth' and 'hand', is also relevant at this stage. Both are old feminines, and both have had vowel change (Umlaut) in the plural, which is fairly rare for Norwegian nouns. And they both get a new, "mixed" or heteroclitic inflection pattern, as Table 9 shows:

TABLE 9 IN HERE

Table 9 Teeth and hands change (Oslo, Romerike)

Gloss	Indef.sg.	Def.sg.	Indef. pl.	Def.pl.
hand	han	1hana	1hener	1hene
tooth	tan	1tana	1tener	1tene
				▼
hand	han	1hana	1hener	1hen**a**
tooth	tan	1tana	1tener	1ten**a**

(See further Enger 2012, Odden 2014)

The nouns meaning ‘hand’ and ‘tooth’ have innovated in the definite plural. This innovation is fairly recent, and it is not a change towards the prestige norm (unlike a number of other changes in East Norwegian these days, cf. Røyneland 2009). The first thing to note about the new forms is that, previously, /a/ did not combine with feminine stems in the definite plural in these dialects. This suffix used to be restricted to masculines and neuters, cf. Table 10:

TABLE 10 IN HERE

Table 10 “Regular” inflection in Romerike and Oslo

Gloss	Indef.sg.	Def.sg.	Indef.pl.	Def.pl.	
knife	kni:v	1kni:ven	2kni:ver	2kni:va	Monosyl M
saw	sa:g	1sa:ga	2sa:ger	2sa:gene	Monosyl F
country	lan	1lane	lan	1lana	Monosyl N

Secondly, prior to the change, /a/ did not combine with vowel change; see Table 11:

TABLE 11 IN HERE

Table 11 Umlaut nouns as they used to be in Romerike, Oslo

Gloss	Indef.sg.	Def.sg.	Indef.pl.	Def.pl.	
'man'	man	1manen	men	1mene	Monosyl M
'farmer'	bune	2bunen	1bøner	1bøne	
'duck'	an	1ana	1ener	1ene	Monosyl F
beach	stran	1strana	1strener	1strene	

In terms of intra-morphological meaning (cf. 3.2), then, the suffix /a/ in the definite plural "says" "the stem on my left is either a masculine or a neuter [in the singular], and does not have umlaut". That was the classical East Norwegian system. On both points, /tena/ and /hena/ represent a change.[15]

There is a link here to the change affecting the nouns 'eye' and 'ear'. The suffix /a/ is found, unexpectedly, in both cases. *Øre, øye* 'ear, eye' stand out by not having changed the definite plural, *tann, hand* 'tooth, hand' stand out by having changed it, so the paths to irregularity or *Kleinstklasse* are different. Irregularity in the case of high frequency may be relevant (cf. e.g. Nübling 2000, 2008). Also, teeth, eyes and ears are fairly often referred to in the plural, not the singular; local markedness (Tiersma 1982) may also be relevant. Their status as body part nouns may also be relevant; see e.g. Kürschner (2008, 282f, 2016). Neither of these accounts excludes the other.

[15] A reviewer wonders whether the change for 'tooth' and 'hand' may also be related to the ongoing 'weakening' of the feminine gender in Norwegian. That may well be; the change to /tena, hena/ is found in dialects where we also find other changes going on in the gender system. However, this suggestion does not invalidate the account given above.

Now, /a/ is the old suffix in these dialects, for both masculines and neuters in the definite plural, cf. Table 10. A traditional idea, in the study of Scandinavian, is that there is a special link between neuter and collectivity. It makes sense for the neuter suffix, then, to spread to teeth, hands and eyes (Odden 2013).[16] Speakers could have regularised differently. They could have let 'hand, tooth' join feminines without vowel change, of the *sag* type in Table 10. They did not, perhaps because word tone 1 in indefinite plural is "signalling" that "this guy is different'. Yet that is not terribly useful outside of morphology.

5 Implications and discussion

The main message of Section 4 has been that there are independently morphological innovations, so at least some criticism of the morphomic approach is inadequate. The aim of Section 5 is to elucidate some other implications and consequences.

5.1 An excursus into one version of Natural Morphology

Some points made in Section 4 may have broader relevance; many linguists do not expect inflection classes to arise, especially not in languages like Scandinavian. Consider e.g. the following quote from Spina and Dressler (2011, 510):

> According to the typological sub-theory of Natural Morphology, the inflecting-fusional language type is characterized by, among many other properties, rich allomorphy and the existence of hierarchically organized inflectional classes. Latin,

[16] The change goes further, at least for some speakers, for whom the suffix /a/ has even spread to feminines. However, there is "method in the madness", in that /a/ has then spread to feminines that had word tone 1 in the indefinite plural.

> as a strongly inflecting language, approaches this ideal type rather closely, whereas weakly inflecting Italian has drifted in the direction of the isolating type, which has neither allomorphy nor inflectional classes. Therefore we can predict that the diachronic change from the strongly inflecting Latin verbal system to the weakly inflecting Italian verbal system excludes an increase of allomorphy and of complexity of inflectional classes, unless phonological change introduces new phonological rules which later morphologize and may complicate the morphological variation space.

If transferred to the history of North Germanic, this claim does not quite hold.[17] For almost all the Scandinavian changes we have considered, phonological change is flatly irrelevant. Even the one indirectly related to "sound law", the new verb class discussed in 4.1, has nothing to do with morphologisation of phonological rules. Admittedly, Spina and Dressler are still partly right; there is not a total increase of allomorphy on the way from Old Norse to Modern Norwegian, for example. However, that may follow by definition – if there is a change from a strongly inflecting language to a weakly one, a large increase of allomorphy would be surprising. There has clearly been a change from a more strongly inflecting Old Norse verbal system to a weakly inflecting Scandinavian one, and yet new inflection classes have arisen. While the new verb class may be partly triggered by a phonological change, it is only partly so, and for the others, there is no such motivation.

5.2 Form-form relations

Several recent studies bring forward new arguments supporting the idea that members of paradigms predict other members (e.g. Ackerman and Malouf 2013, Bonami and Beniamine

[17] If one may judge from Maiden (2018), it does not quite hold for Romance, either.

2016, Sims and Parker 2016). This idea itself is certainly traditional (see e.g. Wurzel 1984, Carstairs-McCarthy 1994 or Andersen 2010). Morphomic patterns may be exactly of the kind where form X implies form Y, for no terribly good reason outside of morphology. It is unsurprising that such patterns are found, and a staunch defender of the idea, Maiden (2018, ch. 2) actually calls morphomes "banal".

If the counter-claim really is that a morphological form cannot be autonomous in this sense, then we are dealing with an extreme form of functionalism, one that many functional and cognitive linguists actually would reject out of hand. A range of functionalists discussing language acquisition, from Bates and MacWhinney (1989) to Ragnhildstveit (2016), emphasise that learning a language is not only about learning form-function relations, but also about learning form-form-relations. In a similar vein, Langacker (1987, 422) is completely unfazed by arbitrary distributional classes, whose existence he simply acknowledges; they do not violate his "Content Requirement", for example.

I confess to surprise at seeing so many generative linguists take what to me seems a less well-founded and much more extreme functionalist view. For example, Bermúdez-Otero and Luís (2016) concede – somewhat reluctantly, perhaps – that there are morphomic patterns. Yet they mention as an alternative the hypothesis of "Taking morphology seriously: In the absence of evidence to the contrary overt morphological derivation signals lexical semantic derivation" (2016, 321).

Bermúdez-Otero and Luís (2016, 335) express a hope that one might "reduce the heat" of the morphome debate. It is not obvious that the best way to do reduce the heat is by implying that such morphologists as Aronoff, Maiden and Loporcaro do not take morphology seriously. According to Bermúdez-Otero and Luís (2016, 321), Andrew Koontz-Garboden has credited Paul Kiparsky for the "general principle" of "taking morphology seriously", but one might also mention e.g. Leiss (1997), who, from a rather different perspective, takes it as

an imperative of a functional grammar that "Die Form ist unbedingt ernst zu nehmen!", i.e. 'the form simply must be taken seriously'. The problem with this view is that there remain so many examples in morphology where it is hard to believe that identity of form must reflect identity of meaning (cf. Maiden 2016a or Stump's 1993 examples of instances where a "rule of referral" may be needed). For example, I find it hard to believe that there is a common semantic denominator for the English suffixes *-s* found in present tense (*sings*) and plural (*songs*). It seems equally implausible to posit a common 'meaning' for the different uses of the Norwegian suffix -a, including (in a fairly traditional East Norwegian dialect) definite singular of feminine nouns (boka 'book-def.sg.[fem]'), definite plural of neuter nouns (åra 'years-def.pl[neut]), past tense of a class of weak verbs (kasta 'throw-pst.), infinitive of certain verbs (væra 'be').

There is no denying that difference in form is usually indicative of difference in function (cf. Clark 1993, 64); perfect synonymy is rare in the lexicon. However, homonymy is another issue entirely; it is not rare in the lexicon of most languages, and it does not bother speakers much, apparently (cf. Clark 1993, 70). There is, diachronically speaking, very little evidence of homonymy avoidance in the lexicon (Sampson 2013). In short, I see no obvious reason why grammatical suffixes in general cannot be homonyms.

On the whole, grammatical affixes are not as orderly and well-behaved examples of Saussurean signs as are words. The issue is given a lengthy treatment elsewhere (e.g. Anderson 1992, chapter 3; Carstairs-McCarthy 1992, 181 – 188, Beard 1995, chapters 1 and 3, Enger 2005, 28), so I shall only summarise a few points. If we ask the proverbial man in the street what the meaning of *dog* is; we will probably get an answer; if we ask what the meaning of *-s* is, we probably will not. Affixes usually presuppose a word in order to be interpreted, but not necessarily the other way around; the meaning of affixes is relational to a higher degree (compare Wurzel 1989, Beard 1995, chapter 3). In some cases, affixes may

seem rather meaningless. This is, for example, the case for the notorious German *Fugenelement* as in *Schafskopf* 'mutton head', where it is far from trivial what meaning to ascribe to the s. In short, affixes often are polyfunctional (compare Beard 1995:33– 34), and thereby differ from words. For example, English *-s* can mean either '3. singular' or 'plural', and this seems to differ from the behaviour of a prototypical lexical item. Empirically, there seems to be more homonymy between affixes (grammatical items) than between lexical items, cf. Beard (1995).

5.3 'Autonomy' and the relation to 'functionalism'

The words "autonomous" and "autonomy" can mean many very different things (cf. e.g. Croft 1995). The "autonomy of syntax" used to be a standard argument in a discussion ending up in some version of nativism (e.g. Pinker 1994). Functionalists and cognitivists, on the other hand, have always been critical towards that view of autonomous syntax (e.g. Hudson 2010, Langacker 2008). The idea of autonomous morphology should be less provocative, since no claims are made about Universal Grammar or innateness (see e.g. Aronoff 2014, 2016). The claim is merely that inflectional morphology has patterns of its own; patterns neither fully reducible to nor fully predicted by anything outside of inflection. This can serve as an antidote against syntactocentrism (cf. Section 2). Apart from that, this understanding of autonomy should not bother too many linguists of whatever ilk. To repeat, morphomes are simply morphological patterns without complete motivation from outside inflectional morphology (cf. Section 2).

The point I am trying to make is that there is a convergence between the morphomic tradition and functionalist studies. This may perhaps come as a surprise to readers of this journal. For example, the influential Danish functional linguist Andersen (2010, 140) takes Maiden (2005) to task for claiming that the 1.pl and 2.pl "have no meaning in common that

would set them apart from other persons" [presumably, person + number *combinations*, HOE]. Andersen argues that the two stand out by having "multiply ambiguous reference potential in contrast to 1.sg, 2.sg, 3.sg and 3.pl whose reference potential is simple and unequivocal".

Unfortunately, Maiden simply does not espouse the view attributed to him by Andersen. To be precise, the N-pattern is such that the forms of the first, second, and third persons singular, and of the third person plural, *in the present indicative, present subjunctive, and imperative*, share formal characteristics not found elsewhere in the paradigm of the verb (Maiden 2018, 169). It is therefore insufficient to point to semantic features unifying the 1. and 2. pl. without addressing the interaction with tense and mood; Andersen's argument appears to be based on a misunderstanding. [18]

Despite differences, the similarities are more important, at least in my view. Andersen (2010, 121) comments on examples as the suffix allomorphs in Latin *femin-ae* 'woman', *vir-ī* 'man', *virgin-is* 'maiden', *dom-us* 'house' and *di-ēs* 'day', saying that each of them "symbolizes GEN.SG and indicates the declension class of its stem'. He calls these relations 'indexical'; similarly, Nielsen (2016, 92) talks of a structural indexical relation, and in a similar vein, Anttila (1975, 1989) talks of indexes. For our purposes, there is no significant practical difference between labelling such relations 'structural indexical' (Nielsen 2016), talking of such relations in terms of 'intra-morphological meaning' (Carstairs-McCarthy

[18] In fact, also Maiden (2018, ch. 2) argues that there may be good cross-linguistic evidence for 1./2. pl. constituting a motivated class. His argument is based on a different line of reasoning than Andersen's, but their conclusion on this point is actually the same.

1994, 2002) or calling them 'autonomously morphological'.[19] To repeat, the differences between the morphomic tradition and some functionalist ones are less important than the similarities (see also footnote 7 and recent writings by Aronoff 2014, 2016 and Blevins 2016.)

6 Summing up

This study has presented well-known cases from Scandinavian that are neither new nor surprising, but still problematic for widely held ideas about inflectional morphology. That is the topic of 6.1. In 6.2, we consider some wider implications.

6.1 There are changes operating on morphology alone

An autonomously morphological (morphomic) level is useful for some purposes. The claim that "there is a morphomic level" is not necessarily very different from a claim that "there are aspects of morphology that cannot be reduced to phonology and syntax". We have looked on what used to be thought of simply as inflection classes without complete extra-inflectional motivation.[20] Unlike many of the Romance examples of morphomic patterns in the literature,

[19] Andersen labels these relations 'X-S_N relations', where 'X' stands for 'expression, 'S' for 'syntax' and 'N' for 'context. In my view, 'syntagmatic' would be a more helpful term than 'syntactic', as the relations between *femin-* and *-ae* etc. hold between parts of words, not words. However, this is a question of terminology and not of theory; Andersen is clearly not claiming that morphology be 'the syntax of words', for example.

[20] Morphomic status need not be either-or; morphomic phenomena may be partly motivated by factors outside of morphology, but still not reducible to such factors (e.g. Maiden 2013b, Esher 2013, Meul 2013).

my examples are mainly affixal, because Scandinavian does not display so much non-affixal allomorphy.

The patterns we have examined in Section 4 qualify as morphomic, since they cannot be explained totally by other components than morphology. If such examples can be brought forward so easily even for the fairly "poor" inflectional systems of Mainland Scandinavian, the claim that there is "very little evidence for change which operates on morphology alone" (Bowern 2015, 249, cf. Section 3.2) probably does not hold. We have also seen that *some* of the critique of the autonomous morphology programme by Bermúdez-Otero and Luís (2016) is not convincing (Section 5.2).

The examples have illustrated that new inflection classes can arise (4.1, 4.3, 4.4) and serve an "intra-morphological" purpose; that supports the autonomy of morphology. New suffixes can have an intra-morphological meaning (e.g. Carstairs-McCarthy 2010, Maiden 2005). The examples also illustrate that inflection classes can be re-inforced (Section 4.2), and this supports their reality for speakers (Maiden 1992, 2005, 2016a, 2018). We have seen that relations between forms in the paradigms deserve attention; that they are indicators of each other (cf. e.g. Wurzel 1984, Carstairs-McCarthy 1994, Maiden 2005, 2016a, Andersen 2010, Ackerman and Malouf 2013, Bonami and Beniamine 2016). Also, a non-affixal marker can "index" an affixal one, and vice versa (4.2), and non-affixal inflection is not an epiphenomenon.

6.2 The broader perspective is local

The willingness to admit autonomous morphology has resulted in an emphasis on patterns that may seem both useless and local. However, this is not particular to morphomic patterns; many grammatical and lexical units seem to be both very local and of rather limited usefulness.

Why would speakers bother to operate with anything so relatively 'useless', at least at first sight, and local as, say, the three genders of German? Yet they do. Why would speakers operate with say, the 'crazy' assignment rules that "nouns denoting alcoholic beverages are masculine in German", or "nouns denoting dairy products tend to be masculine in Norwegian"? Yet apparently they do (Enger 2009). Now, this example is a semantic generalisation, unlike the rest of my examples, but the point – also of this example – is simply that many generalisations are local. According to Joseph (1996), "Most generalizations […] should be recognized as being truly local in nature, that is, they have a restricted scope, and where linguists' generalizations go astray is in not being sufficiently localized".

The label "crazy rules" has been used about such generalisations as the gender of Norwegian dairy products (Enger 2009), and from the linguist's perspective, they are "crazy", as they are isolated from the semantic core of gender systems. From the speaker's perspective, by contrast, there is nothing crazy about a rule like this, simply because the "human mind is an inveterate pattern-seeker" (Blevins and Blevins 2009, 1). Whether the patterns are "useless" or not need not be terribly important to speakers.[21] They are probably "scanning for regularities" constantly, anyway (Bybee and Beckner, 2009, 830).

Morphomic patterns may appear to be redundant and "crazy" to the linguist, but so do many other phenomena in human languages, which invariably contain massive redundancy

[21] Thanks to Jenny Audring (p.c.) for pointing this out to me.

(Dahl 2004).[22] That should be no surprise, since redundancy is helpful to learning (e.g. Anttila 1975, 1989).

The 'morphomic perspective' does not only fit with an emphasis on what is local and 'redundant', but also with an emphasis on 'system-adequacy' or 'system pressure', familiar from theorists as Wurzel (1984), Gaeta (2010, to appear), Andersen (2010) and Haspelmath (2014). Gaeta (to appear) explicitly links morphomes to system-adequacy.

From a psycholinguistic perspective, Dabrowska (2004, 144–148, cf. also 2006) argues that "the most robust generalisations appear to be local". From a diachronic perspective, Joseph (2011, 415) says speakers "act as if they are in a fog… not that they are befuddled but that they see clearly only immediately around them … they thus generalize only "locally"." In syntax, construction grammarians (e.g. Goldberg 2006, Langacker 2008, Hudson 2010, Haugen 2014) argue that, in addition to general constructions, more specific constructions are needed to account for the actual diversity of data from natural languages. That means "locality" and memorisation; factors essential for morphomic accounts, cf. Maiden (2018, ch. 2). This is compatible with functionalist perspectives (cf. Section 5.3).

If much of morphology is local or redundant, perhaps that is simply because this is how languages work; they are "sometimes messy… a good description, analysis, and theory, must accommodate the mess, not just step around it … by avoiding idiosyncratic facts, we run the risk of explaining a mirage of our own making" (Aronoff 2016). In other words, languages

[22] Obviously, most languages do without e.g. a morphomic L-pattern, but this is only to be expected if there are few truly "meaty" categorical empirical universals anyway (e.g. Haspelmath 2008, Evans and Levinson 2009).

are better seen as "systems" of partly competing low-level regularities than as systems of "global" rules (cf. e.g. Wurzel 1984, Carstairs-McCarthy 2008, Maiden 2016a, Maiden 2018).

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