

A Novel Kind of Gender Syncretism¹

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Abstract: Cross-linguistically, gender is often syncretic in the plural, that is, plural forms typically do not make gender distinctions. However, this chapter focuses on a little-studied type of syncretism where “plural” agreement is syncretic with the singular agreement associated with a particular gender. Specifically, plural masculine and feminine nouns alike trigger the agreement patterns of masculine singular nouns. Using data from Maay, Amharic, and Haro, an analysis of this syncretism is developed in Distributed Morphology and evidence is provided against an alternative analysis in which these plural nouns would have masculine gender in the syntax. Since Distributed Morphology makes restrictive predictions about possible syncretisms, it is shown how it is a positive result that it predicts exactly this type of syncretism. Overall, the chapter advances our understanding of gender and number by analyzing a novel gender-number syncretism and presents a case study of how to distinguish morphological and syntactic effects.

Keywords: gender, number, plural, syncretism, Distributed Morphology, Maay, Amharic, Haro, morphology, syntax

1 Introduction

Over approximately the past decade, there has been a surge of morphosyntactic research on grammatical gender, including Ferrari 2005, Lowenstamm 2008, 2012, Fathi and Lowenstamm 2016, Acquaviva 2009, Kramer 2009, 2014, 2015, Carstens 2010, Armoskaite 2011, Faust 2013, among others. The boom in gender research joins a large, established literature on the morphosyntax of number including Ritter 1991, 1992, Bernstein, 1991, 1993, Carstens 1991, Picallo 1991, Li 1999, Alexiadou, Haegeman and Stavrou 2007, Harbour 2011, 2014 and many more. However, the morphosyntactic interaction of gender and number is less well-studied in theoretical linguistics (exceptions include Harley and Ritter 2002, Nevins 2011, and Kramer 2015) and this is particularly surprising since gender and number have a tight relationship, often interacting with each other separately from person (see e.g., Baker 2011).

One of the main ways in which gender and number interact is in syncretism, and this paper serves primarily to describe and analyze a novel type of gender-number syncretism. It is common across languages for gender to be syncretic in the plural, that is, for plural agreement not to make gender distinctions; this is reflected in Greenberg’s Universal 37 “A language never has more gender categories in nonsingular numbers than in the singular” (Greenberg 1966:95). However, in this paper, I focus on

¹Many thanks to Mary Paster for inspiring this line of investigation and for discussion of the Maay data. Thanks are also due to two anonymous reviewers whose insightful comments vastly improved the paper. The paper also benefitted from audience feedback at the 43rd North American Conference on Afroasiatic Linguistics, Harvard University, the 4th Cambridge Comparative Syntax Workshop, the University of Chicago, Roots IV and the Workshop on Gender, Class and Determination at the University of Ottawa. Examples without a citation are from my own fieldwork on Amharic, and heartfelt thanks to the consultants: Senayit Ghebreyiwet, Betselot Teklu, Meriem Tikue, Girma Demeke, Bekale Seyoum, Hileena Eshetu, Bezza Ayalew, Selome Tewoderos, Mahlet Tadesse, Mignote Yilma, Issayas Tesfamariam, and Harya Tarakegn.

a little-studied type of syncretism where “plural” agreement is syncretic with the singular agreement associated with a particular gender. In other words, plural masculine nouns and plural feminine nouns alike trigger the agreement patterns of, say, masculine singular nouns.²

Using data from three Afroasiatic languages (Maay, Amharic, and Haro), I demonstrate how this syncretism can occur in a single paradigm or across multiple paradigms. I develop an analysis of the syncretism using Distributed Morphology (DM), and show how it makes a correct prediction about default gender in Amharic. I also argue against an alternative syntactic analysis in which all plural nouns would have masculine gender in the syntax, showing how this cannot be correct for Amharic. Finally, I compare DM to an alternative morphological framework (Paradigm Function Morphology) and I argue that the ability of DM to predict this pattern, despite being more restrictive than Paradigm Function Morphology, is a point moderately in favor of DM. Overall, then, the paper contributes to our understanding of gender and number by analyzing a novel type of gender syncretism in the plural and, following the lead of Harley 2008, it contributes to the (currently) underdeveloped literature on how to distinguish a morphological syncretism from a syntactic effect.

In Section 2, I lay out some background on gender-number interaction and on syncretism in DM. In Section 3.1, I introduce the novel pattern of gender-number syncretism with data from Maay (Cushitic; Somalia), drawing on observations initially made in work by Paster and colleagues (Paster 2006, Comfort and Paster 2009, Paster 2010, to appear). I develop a DM analysis of syncretism in Maay, and then show in Section 3.2 how the analysis makes a prediction that is confirmed in Amharic (Semitic; Ethiopia). In Section 3.3, I turn to Haro (Omotic; Ethiopia) which has this type of syncretism across paradigms. I demonstrate how DM can account for this pattern using the operation Impoverishment. Section 4 looks at the bigger picture, developing and refuting the alternative syntactic analysis of this syncretism and comparing DM to Paradigm Function Morphology. Section 5 concludes by discussing a few open issues, including some related syncretisms in other languages.

2 Background

2.1 Gender, Number, and Syncretism

The gender inventory of a language is conventionally determined by looking at its agreement patterns (Corbett 1991, Kramer 2015). Consider the data from Amharic in (1).

- (1) a. **ya** säw dägǵ **näw** b. **yatʃf** set dägǵ **nat**
 that.M man good **be.3MS** **that.F** woman good **be.3FS**
 ‘That man is good.’³ ‘That woman is good.’ (Leslau 1995:66, 67)

In (1)a, where the subject is male, the demonstrative is *ya* and the copular verb is *näw*. In (1)b, where the subject is female, the demonstrative is *yatʃf* and the copular verb is *nat*. Since we see two different agreement patterns for each element that displays agreement, it is safe to conclude

² In some languages, plural nouns that are low on the animacy hierarchy trigger singular agreement (see e.g., Corbett 2000:55-65). This phenomenon is similar to the syncretism discussed in this paper, but a key difference is that, in these languages, only some (not all) plural nouns trigger singular agreement. See Section 5 for discussion.

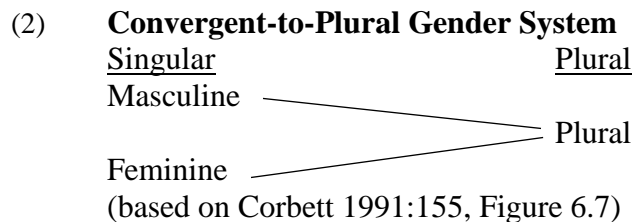
³ Gloss abbreviations: 3 – third person, ABS – absolutive case, DEF – definite marker, F – feminine, FEM – female biological gender, M – masculine, PL – plural, S – singular.

that Amharic has two genders – one correlated with male-referring nouns (masculine gender) and one correlated with female-referring nouns (feminine gender).

However, this type of description is usually done on the basis of singular nouns, like in (1). A crucial question then, is, what gender distinctions are expressed via agreement with plural nouns. As it turns out, plural nouns do not necessarily make the same gender distinctions as singular nouns, and typologists (Heine 1982, Corbett 1991) have characterized three different types of languages according to the gender distinctions made across numbers. In a convergent gender system, plural nouns make fewer gender distinctions than singular nouns, i.e., gender is syncretic in the plural. For example, French determiners have only one plural form *les* ‘the.PL’ despite the fact that singular nouns distinguish two genders. In a crossed gender system, the mapping from singular gender to plural gender is one-to-many (for at least some nouns⁴). One of the most well-known examples of a crossed system is Romanian, where some masculine nouns trigger masculine agreement in the plural but others trigger feminine agreement (see e.g., Farkas 1990, Bateman and Polinsky 2010, Kramer 2015). Finally, in a parallel gender system, plural nouns agree just like singular nouns with respect to gender. For example, Spanish determiners have two separate plural forms depending on gender (*los* ‘the.MPL,’ *las* ‘the.FPL’), and thus they formally maintain the two separate genders attested in the singular.

Convergent systems -- that is, systems where the number of genders is reduced in the plural – will be the focus henceforth. I set aside parallel systems because they are fairly straightforward, and crossed systems because they are the opposite -- too complex to include. I also limit the languages under consideration to languages that have only masculine and feminine genders. This keeps the cross-linguistic variation manageable for a paper of this scale, and provides more than enough empirical richness.

In the typological literature, only one type of convergence/syncretism has been reported for two-gender languages: a distinct plural form being used for nouns with both genders. This is represented graphically in (2) and I refer to it as **convergent-to-plural**.



The example of this mentioned earlier was from French where the plural determiner *les* is used for both masculine and feminine nouns. The convergent-to-plural pattern is extremely common in two-gender languages from a wide range of families including Dieri (Pama-Nyungan; Austin 2011:65), Taiap (isolate, Papua New Guinea; Kulick and Stroud 1998:208), Russian (Indo-European (Slavic); Corbett 1991:132), Krongo (Nilo-Saharan; Reh 1983:45-7), Avar (Caucasian; Corbett 1991:190) and Hausa (Afroasiatic (Chadic); Newman 2000:216), among many others. However, as will become clear shortly, it is not the only possible way for gender to be syncretic in the plural for a two-gender language. Before diving into the empirical side of the paper,

⁴ This is a friendly amendment to Corbett’s (1991:156) definition of a crossed system as “gender in neither number determines the gender in the other.” In some crossed systems (e.g., Romanian), at least some of the genders in the singular determine gender in the plural (e.g., feminine).

though, it is necessary to provide some background on the theoretical analysis of syncretisms that this paper will use.

2.2 Gender/Number Syncretism in Distributed Morphology

In this section, I briefly review the approach to syncretism developed in Distributed Morphology (see e.g., Noyer 1998, Bobaljik 2002, Frampton 2002, Calabrese 2008, Harley 2008, Nevins 2011, and Kramer 2016). I assume that the reader has a basic working knowledge of DM and only requires a refresher on its specific approach to syncretism. The convergent-to-plural pattern is used to demonstrate the analysis, laying the groundwork for the analysis of the less common type of gender syncretism discussed in Sections 3 and 4.⁵

In DM, syntactic feature bundles are exponed via Vocabulary Insertion, a process that matches a syntactic feature bundle with a paired exponent and feature bundle known as a vocabulary item (VI). Syncretism occurs when a VI is inserted at a syntactic feature bundle that expones fewer features than are present on the bundle itself. For example, the plural definite determiner in French is shown in (3). The syntactic feature bundle is on the left and possible VIs to be inserted are on the right.

(3) Syntax	Potentially Insertable Vocabulary Items
[D]	a. [D], [DEF], [-PL],[+FEM] ↔ la
[DEF]	b. [D], [DEF], [-PL],[-FEM] ↔ le
[+PL]	c. [D], [DEF], [+PL] ↔ les
[+FEM]	

The VI is inserted which matches the most features of the bundle without any conflicting features and without containing any features that are absent from the bundle. For the French plural determiner, then, the VI (3)c is inserted; it matches the most features of the bundle ([D], [DEF], and [PL]) without containing any features that conflict with the bundle. (3)c lacks a gender feature, but it is licit to insert a VI with **fewer** features than those present in the syntactic feature bundle. Thus, for French determiners, the same plural VI *les* is inserted across genders for the definite determiner. This is often referred to as an underspecification analysis with the VI (3)c underspecified for gender.

An underspecification analysis depends on the feature make-up of individual Vocabulary Items; it is a fact about French VI's that there is only one plural determiner. It thus works reasonably well for French overall, where some agreeing elements do in fact maintain gender distinctions in the plural (e.g., demonstratives). However, it is less appealing for languages like Russian (Bobaljik 2002, Harley 2008) or Coptic (Kramer 2016) where no feature bundles containing phi features make gender distinctions in the plural – whether they are verbs, determiners, demonstratives, adjectives, pronouns, etc. This is shown for Coptic in Tables 1-3, where the determiners, verbal agreement and pronouns all are convergent-to-plural.

⁵ In this paper, I consider only “contextual syncretism” (Calabrese 2008), i.e., when a language formally encodes a difference between two features in one context, but does not formally differentiate them in another context. I will not consider the question of whether, say, first person paradigms that never formally distinguish gender have gender features underlyingly.

Table 1: Coptic Determiners

	Feminine	Masculine
Singular	t-	p-
Plural	ŋ-	

(Layton 2011:44)

Table 2: Coptic Personal Prefixes: Durative Verbs

	Singular	Plural
1st pers	ti-	tŋ-
2nd pers	k- (m.)	tetŋ-
	te- (f.)	
3rd pers	f- (m.)	se-
	s- (f.)	

(Layton 2011:65⁶)

Table 3: Coptic Independent Personal Pronouns

	Singular	Plural
1st pers	anok	anon
2nd pers	ŋtok (m.)	ŋto:tŋ
	ŋto (f.)	
3rd pers	ŋtof (m.)	ŋtow
	ŋtos (f.)	

(Layton 2011:65)

This type of syncretism is often referred to as a metasyncretism – a syncretism that holds across several paradigms even though each paradigm has different VIs.

An underspecification approach is unappealing for metasyncretisms because it would require the same kind of underspecified VI to occur in every affected paradigm in the language, effectively stating the same syncretism multiple times in the grammar (Bobaljik 2002, Harley 2008). Instead of encoding the syncretism multiple times, it is more economical to do so just once using the operation Impoverishment (Bonet 1991, Noyer 1998, Bobaljik 2002, Harley 2008, Nevins 2011, Arregi and Nevins 2012, among others).⁷ Impoverishment deletes a feature from a

⁶ Variants omitted for ease of exposition.

⁷ There are a few additional solutions to this problem in the DM literature, namely, brute-force ordering of VI's (see e.g., Halle 1997:427-8) and appealing to a feature hierarchy to determine VI Insertion (see e.g., Noyer 1997). See Harley 2008 for discussion of these options.

Also, an anonymous reviewer questions whether it is even problematic to state a metasyncretism via individual Vocabulary Items. The reviewer observes that a learner of Russian or Coptic will never be exposed to plural VI's that make gender distinctions, so the learner will have no reason to posit such VI's, so there is no reason to use Impoverishment. While it is certainly possible to generate metasyncretisms by ensuring that each plural Vocabulary Item lacks gender features, this analysis seems to miss a key morphological generalization about the language. This analysis will state that plural VI's lack gender features for as many times as there are agreement paradigms (for different types of verbs, for different types of pronouns, for all categories that participate in concord, etc.). If we assume as a general heuristic that linguistic theories should encode generalizations as few times as possible, then something more general needs to be said here, whether that is Impoverishment in Distributed Morphology or statements across paradigms in a paradigm-based theory (on the latter, see discussion in particular in Williams 1994)

syntactic feature bundle, therefore keeping that feature from being able to influence the exponence of the bundle. Bobaljik 2002, Harley 2008 and Kramer 2016 propose Impoverishment rules to capture the gender metasyncretism in languages like Russian and Coptic. The version for Coptic from my previous work (Kramer 2016) is shown in (4).

- (4) **Coptic Gender/Number Impoverishment (obligatory)**
 [+PL] → [+PL]
 [+/-FEM]

(4) deletes the gender feature from any plural feature bundle before that feature bundle is exponed. Accordingly, it will not be possible for a VI with a gender feature to be inserted at any syntactically plural feature bundle. Overall, then, regardless of the category or particular VI's, gender distinctions can never be maintained in the plural in a language with an Impoverishment rule like (4).

So far, then, we have seen gender-number syncretism in a single paradigm (French determiners) and gender-number syncretism across multiple paradigms (Coptic, Russian). In both cases, the syncretic VI has a feature that the non-syncretic VI's lack – it is plural, whereas the non-syncretic VI's are singular. But there are also syncretisms found in natural language where the syncretic VI does not have any features that are distinct from the non-syncretic VI. For example, consider the Romanian declension in Table 4.

Table 4: Romanian Verbal Declension (Partial)

	Imperfect (Conjugation 1) <i>a cânta</i> 'to sing'	Present Indicative (Conjugation 1) <i>a súfla</i> 'to breathe'
1sg	cântá- m	súfl-u
1pl	cântá- m	suflă- m

The suffix *-m* is used for 1pl imperfect, 1pl present indicative, and 1sg imperfect, whereas the suffix *-u* is used for 1sg present indicative. Therefore, there is no single feature that differentiates the VI *-m* from the VI *-u*. Like *-u*, *-m* can be inserted in singular contexts, in first person contexts, and in present indicative contexts. To account for this type of syncretism, it must be that *-m* is highly underspecified, viz. a 1st person default VI. This is shown in (5)b. To ensure that *-m* is not inserted for 1sg present indicative, either *-u* must be a highly specified VI (as shown in (5)a) or the 1sg present indicative feature bundle must undergo Impoverishment for its first person features (as suggested by the fact that it can also be used for 3pl imperfect; see Bobaljik 2002:65-66 for further discussion).

- (5) a. [1], [-PL], [PRES INDIC] ↔ -u
 b. [1] ↔ -m

Therefore, this is a different sort of syncretism than the standard convergent-to-plural seen earlier in this section. Rather than a particular morphosyntactic feature like plural conditioning the syncretism, the syncretism occurs because a default form is used in multiple 'slots' in the

paradigm. Therefore, any additional evidence that the form is used as a default generally buttresses this type of analysis, and I refer to this as a default-type syncretism.⁸

The next question to ask is: is default-type syncretism found with gender-number syncretism? If so, is it amenable to an analysis like (5)? I spend Section 3 answering those questions affirmatively.

3 Convergent-to-Gender

In this section, I introduce the novel type of gender syncretism, which I will call **convergent-to-gender**. To the best of my knowledge, it has not previously been analyzed, except for a brief discussion of Amharic in some of my previous work (Kramer 2016:99). I argue that it fills the ‘gap’ identified in Section 2.2 of a default-type of syncretism for gender and number. In 3.1, I analyze the pattern in Maay, in 3.2 I verify a prediction of the analysis in Amharic, and in 3.3 I analyze a convergent-to-gender metasyncretism in Haro.

3.1 Maay

Convergence-to-gender is well documented in Maay, a Cushitic language spoken in Somalia (data drawn from Paster 2006, Comfort and Paster 2009, Paster 2010, to appear).⁹ Maay has masculine and feminine genders and singular and plural numbers (Paster 2006). Many categories do not express gender distinctions in the plural, as shown in Tables 5 to 7. For example, in Table 5, the simple past subject agreement differentiates third person masculine from third person feminine in the singular, but not in the plural.¹⁰

Table 5: Maay Simple Past Subject Agreement

	Singular	Plural
1st pers	-i	-ni
2nd pers	-ti	-teena
3rd pers	-i (m.)	-eena
	-ti (f.)	

(Paster 2006:101)

⁸ There are also syncretisms that cannot be analyzed via underspecification (plus Impoverishment) or via the identification of a default. One famous example involving gender and number comes from Somali (Lecarme 2002, Kramer 2015: Ch.8). In Somali, many feminine plural nouns take the masculine singular determiner and many masculine plural nouns take the feminine singular determiner. Thus, the syncretic determiner forms do not share features (e.g., one form is used for feminine plural and masculine singular) and yet the syncretic determiners are not defaults. However, in Lecarme 2002 and in my previous work, it has been argued that this is a syntactic phenomenon, not a morphological syncretism. The choice of gender for a plural noun depends on which plural form is used, indicating that different plural syntactic heads carry different gender features which ‘override’ the gender of the base noun. See Section 4.2 for further discussion of distinguishing a morphological syncretism from a syntactic effect, and see Béjar and Hall 1999, Harbour 2013, Trommer 2016, Kramer 2016 for other approaches to syncretisms that initially resist underspecification and default approaches.

⁹ Convergence-to-gender is also attested in Dhaasanac and Elmolo (both Cushitic; Mous 2008), as well as Amharic (Section 3.2) and Haro (Section 3.3). See Section 5 for discussion of other languages where similar patterns might be found.

¹⁰ Maay also has two metasyncretisms in its verbal paradigms: one between 1st sg / 3rd masc sg and the other between 2nd sg / 3rd fem sg (Paster 2006:117-118).

Table 6: Maay Future Potential Subject Agreement

	Singular	Plural
1st pers	-aw	-aano
2nd pers	-aso	-aasona
3rd pers	-aw (m.)	-aayona
	-aso (f.)	

(Paster 2006:107)

Table 7: Maay Generic Potential Subject Agreement

	Singular	Plural
1st pers	-o	-no
2nd pers	-to	-tona
3rd pers	-o (m.)	-ona
	-to (f.)	

(Paster 2006:108)

However, there is a different pattern for definite determiners, demonstrative determiners, and possessive determiners (Paster 2006, Comfort and Paster 2009, Paster to appear).¹¹ For these targets, the “masculine singular” form is used for all plural nouns.

Table 8: Maay Definite Determiners

	Feminine	Masculine
Singular	-ti	
Plural		-ki

(Paster 2006:94)

Table 9: Maay Distal Demonstratives

	Feminine	Masculine
Singular	-tas	
Plural		-kas

(Paster 2006:95-96)

Table 10: Maay 1st Person Singular Possessive Determiners

	Feminine	Masculine
Singular	-tey	
Plural		-key

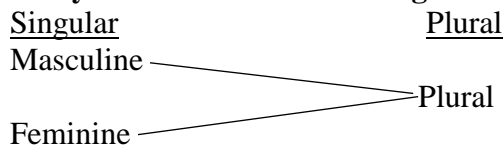
(Paster 2006:97)

¹¹ Abstracting away from phonology-triggered allomorphy.

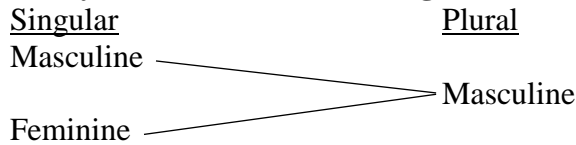
In other words, gender and number are simultaneously syncretic in Maay: a single exponent (e.g., *-ki* for the definite determiners) is used for singular and plural masculine nouns (number syncretism) and masculine and feminine plural nouns (gender syncretism).

From the typological perspective, Maay is clearly convergent because gender is syncretic. However, convergence/crossedness/parallelism is not a fine enough classification – Maay is convergent in two different ways, as shown in (6) and (7).

(6) **Maay Gender and Number Agreement: Verbal Agreement**



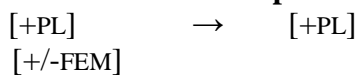
(7) **Maay Gender and Number Agreement: Determiner Agreement**



The verbal agreement is convergent-to-plural, like Coptic, French, and Russian, but the determiner agreement converges not to a distinct plural exponent but the same exponent used for masculine singular. This type of syncretism is similar to the first-person-agreement Romanian syncretism in Section 2.2 because the syncretic VI does not have a distinguishing feature or clear conditioning factor – it is used in plural contexts, singular contexts, feminine contexts and masculine contexts. Thus, this is the default-type syncretism, attested in the gender-number domain.

Turning now to the analysis, it is clear that gender is metasyncretic in Maay: no paradigm makes gender distinctions in the plural. Therefore, the Impoverishment operation proposed for Coptic in (4) is also found in Maay.

(8) **Gender/Number Impoverishment (obligatory): holds in Coptic and Maay**



This suffices to generate the verbal agreement facts.

To capture the convergent-to-plural pattern in the determiners, consider that each determiner can be morphologically decomposed into a gender/number agreement marker and a remainder (Paster 2006), as shown in Table 11.

Table 11: Decomposition of Maay Determiners

	Masc and/or Pl	Fem Sing	Remainder
Definite Determiner	k-	t-	-i
Distal Demonstrative Determiner	k-	t-	-as
1st sing Poss Determiner	k-	t-	-ey

The same two Vocabulary Items are inserted to expone agreement across all of these determiners (*k-* for masculine/plural, and *t-* for feminine singular), so each determiner is a complex head with at least two parts: the agreement marker and the determiner-specific content.

To encode this generalization in the grammar, I adopt Norris's (2014) approach to concord. Norris 2014 is one of the most up-to-date and fully-worked-out theories of concord and, conveniently, it is compatible with DM; I focus here on his claims about the PF mechanism of concord. Norris claims that at PF an Agr(eement) node is inserted adjoined to any head that shows concord, and agreement features are copied into the Agr head from a local source. The Agr Node insertion operation for a determiner is shown in (9), and I assume that gender and number features are copied into the Agr node.

- (9) **Agr Node Insertion at Det**
 Det → [Det Agr]_{Det}

I propose that the Vocabulary Items which compete to realize the Agr node are in (10).

- (10) a. [+FEM],[AGR] ↔ -t / __ Det
 b. [AGR] ↔ -k / __ Det

Singular agreement is very straightforward to derive. A feminine singular agreement marker has a [+FEM] feature, and it must therefore be realized as (10)a since this VI matches more of its features than (10)b. A masculine singular marker will be realized as (10)b since the [+FEM] feature in (10)a clashes with its features (assuming that the masculine singular agreeing node includes a [-FEM] feature).¹²

Plural determiners are more interesting. Since the Agr node will have both a plural feature and a gender feature, it will be subject to Impoverishment as per (8). Impoverishment removes the gender feature, so the only Vocabulary Item that can be inserted for plural agreement is (10)b. (10)a has a feminine gender feature, i.e., a feature that is not present on the plural agreement node to be expounded. This results in the same VI which inserted at masculine singular determiners (*-k*) being inserted at all plural determiners, as per the facts. This VI itself ((10)b) is simultaneously underspecified for gender and number.

From this perspective, convergence-to-gender occurs because Maay's inventory of VI's lacks a specialized VI to express plural features for determiner agreement. This is captured in DM by positing a highly underspecified, default VI for determiner agreement, *-k* in (10)b. The arrangement of VIs in (10) is very similar to the arrangement of VIs for the Romanian 1st person syncretism in Section 2.2: there is one highly underspecified VI used as a default across many contexts, and another, more specified VI used for a single 'slot' of the paradigm. Thus, gender/number displays the full range of syncretisms predicted by DM.

3.2 Amharic: Prediction Confirmed

This approach to convergence-to-gender makes a particular prediction about defaults. In (10)b, the syncretic VI lacks gender features, so it will be inserted as a default whenever gender features are absent from an agreement node. Thus we arrive at the prediction in (11).

¹² If the feature bundle lacks a gender feature entirely (as proposed for masculine inanimate nouns in Kramer 2015), then (10)a could still not be inserted since it would contain a feature not present in the syntactic feature bundle.

- (11) Prediction: In a language where gender and number are simultaneously syncretic, the VI used for plural agreement will be the same VI used for default gender agreement.

In this section, I show that this prediction is upheld in Amharic.

Amharic is a Semitic language spoken in Ethiopia. It has masculine and feminine genders (Leslau 1995:161) and singular and plural numbers (Leslau 1995:169). In most paradigms, gender distinctions are not maintained in the plural.¹³ This is shown in Tables 12 to 15.

Table 12: Amharic Perfective Subject Agreement

	Singular	Plural
1st pers	-hu, -ku	-n
2nd pers	-h, -k (m.)	-atʃtʃihu
	-f (f.)	
3rd pers	-ä (m.)	-u
	-ätʃtʃ (f.)	

(Leslau 1995:287)

Table 13: Amharic Copula Agreement

	Singular	Plural
1st pers	nänñ	nän
2nd pers	näh (m.)	natʃtʃihu
	näf (f.)	
3rd pers	näw (m.)	natʃtʃäw
	nätʃtʃ, nat (f.)	

(Leslau 1995:271)

Table 14: Amharic Distal Demonstrative Agreement

	Feminine	Masculine
Singular	yaʃtʃ(i)	ya
Plural	innäzziya	

(Leslau 1995:66-67¹⁴)

¹³ There is one paradigm where gender distinctions seem to be maintained, namely, adjectives which are derived via the suffix *-awi*, as in (i)

- (i) a. ityoppiy-awi-yan b. ityoppiy-awi-yat
Ethiopia-awi-M.PL Ethiopia-awi-F.PL
'Ethiopian (m. pl.)' 'Ethiopian (f. pl.)' (Leslau 1995:171).

However, this distinction seems to be fading from the language. Four out of five consultants use the “masculine” plural to modify all nouns, which renders the paradigm convergent-to-plural (the masculine singular agreement is null), like every other paradigm in the language.

¹⁴ Variants omitted for ease of exposition.

Table 15: Amharic Possessive Markers

	Singular	Plural
1st pers	-e	-atʃtʃin
2nd pers	-ih (m.)	-atʃtʃihu
	-ij (f.)	
3rd pers	-u (m.)	-atʃtʃaw
	-wa (f.)	

(Leslau 1995:50-51)

However, the definite marker in Amharic behaves similarly to Maay determiners. A “masculine singular” exponent is used for all plural nouns.

Table 16: Amharic Definite Marker

	Feminine	Masculine
Singular	-wa	
Plural		-u

(Leslau 1995:156)

Because Amharic never distinguishes genders in the plural, it has the same Impoverishment operation as Maay and Coptic, repeated in (12).

- (12) **Gender/Number Impoverishment (obligatory): holds in Coptic, Maay and Amharic**
 [+PL] → [+PL]
 [+/-FEM]

This accounts for Tables 12 to 15. As for the definite marker, it can be decomposed into a gender/number agreement morpheme and a remainder, as shown in Table 17.

Table 17: Decomposition of Amharic Determiner

	Remainder	Masc and/or Pl	Fem Sing
Definite Determiner	-u	-∅	-a

The combination of *-u* with the feminine singular agreement marker *-a* results in the *-u* becoming a glide, a standard phonological process in Amharic (Leslau 1995:36-37). Assuming this decomposition, the relevant Vocabulary Items for the agreement markers associated with the definite determiner are in (13) (similar VIs are proposed in Kramer 2016, although the determiners are not decomposed there).

- (13) a. [+FEM],[AGR] ↔ -a / ___ [D],[+DEF]
 b. [AGR] ↔ -∅ / ___ [D],[+DEF]

For any plural agreement marker, Impoverishment occurs as per (12). After this, it is only possible to insert (13)b since (13)a will not match the features on the Impoverished feature

bundle ((13)a has a gender feature). This correctly predicts that the form of the definite determiner for all plural nouns will be *-u*, along exactly the same lines as in Maay in Section 3.1. We can now turn to the prediction, repeated below as (14).

- (14) Prediction: In a language where gender and number are simultaneously syncretic, the VI used for plural agreement will be the same VI used for default gender agreement.

Since the VI for plural agreement in determiners lacks all gender features, and the other VI has a gender feature, it must be that the VI for plural agreement is used when gender is unknown, i.e., for default gender agreement.

Default gender agreement occurs when agreement must be expounded and the determiner has not received a gender feature, most likely because the noun lacks a gender feature itself. In Amharic, the linguistic gender of an animate nominal is equivalent to its biological/natural gender; women, girls and female animals are exceptionlessly feminine, whereas men, boys and male animals are exceptionlessly masculine. Therefore, following my previous work on Amharic gender (Kramer 2009, 2014, 2015), I assume that when biological gender is unknown to the speaker or irrelevant, an animate noun lacks a gender feature in the syntax. This predicts that an animate noun whose biological gender is unclear or irrelevant will take the definite determiner *-u*.¹⁵ This is borne out, as in (15) for a human being and (16) for an animal.¹⁶

- (15) his'an-**u** wänd näw set?
 baby-DEF.M male be.3MS female?
 'Is the baby a he or a she?' (Leslau 1995:164)

- (16) anbässa-**w** wänd näw set?
 lion-DEF.M male be.3MS female
 'Is the lion male or female?'

Therefore, (14) is confirmed: the 'masculine singular' VI which Amharic uses for plural agreement with all nouns is also the form used in default gender agreement.¹⁷

3.3 Haro: Metasyncretism

¹⁵ The determiner *-u* happens to be used for masculine nouns in the singular in Amharic, but nothing in DM requires the default determiner to be 'masculine' in this way. For example, in Kala Lagaw Ya (Pama-Nyungan; Western Torres Strait Islands), at least some plural nouns trigger the same agreement as **feminine** nouns, and the default gender generally is feminine (Alpher 1987:173, Bani 1987).

¹⁶ In Amharic, there are a scant handful of animal nouns that take the feminine definite marker when the biological gender of their referent is unknown including *ayt* 'mouse,' and *bäk'lo* 'mule.' In my previous work (Kramer 2014, 2015), these nouns are analyzed as having a [+FEM] feature, which predicts that they will trigger the insertion of (13a) as attested. In other words, these nouns are exceptions since they do not lack a gender feature like the nouns in (15)-(16) and thus do not trigger default gender agreement.

¹⁷ A relevant question here is whether (14) is borne out in Maay. In order to determine this, it would be necessary to understand the gender assignment system of Maay as well as to elicit/locate specific examples testing default gender agreement (probably similar to (15) and (16)). While this information is not currently available, Paster (p.c.) suggests that masculine seems to be the default gender in general in Maay (e.g. the majority of the nouns are masculine), which bodes well for (14) being upheld and the masculine definite determiner being used in gender default contexts.

In this section, I turn to another instance of the convergent-to-gender syncretism which differs slightly but significantly from the syncretisms seen so far in Maay and Amharic. In Maay and Amharic, the syncretisms are limited to a single set of VI's – the determiners (see Section 5 for some discussion of why determiners seem likely to display this syncretism). However, in Section 2, we saw that some syncretisms – namely, metasyncretisms – hold across VI's. Haro is a clear case of a convergent-to-gender metasyncretism, which proves to also be amenable to a DM analysis.

Haro is an Omotic language spoken in Ethiopia. The source for the data used here is the only contemporary work on Haro: a grammar by Wolde-Mariam (2015). Haro has masculine and feminine genders (Wolde-Mariam 2015:34) and singular and plural numbers (Wolde-Mariam 2015:41).¹⁸ Subject agreement and pronouns are convergent-to-plural, as shown in Tables 18 and 19.

Table 18: Haro Subject Agreement Markers

	Singular	Plural
1st pers	tá-	nú-
2nd pers	né-	ʔíní-
3rd pers	ʔé- (m.)	ʔú-
	ʔí- (f.)	

(Wolde-Mariam 2015:110)

Table 19: Haro Long-Form Absolutive Pronouns

	Singular	Plural
1st pers	tan-á	nún-á
2nd pers	nén-á	ʔínen-á
3rd pers	ʔés-á (m.)	ʔúsún-á
	ʔís-o (f.)	

(Wolde-Mariam 2015:79)

However, the definite determiners are convergent-to-gender, as shown in Table 20. The VI -z is used for masculine singular nouns and for all plural nouns.

Table 20: Haro Definite Determiner

	Feminine	Masculine
Singular	-t	
Plural		-z

(Wolde-Mariam 2015: 38-40)

Thus far, Haro's agreement system looks very much like Maay and Amharic. However, in Haro, absolutive case markers are also convergent-to-gender, and the case markers are exponed via different VI's than the determiners, as shown in Table 21. (I follow Wolde-Mariam 2015 in

¹⁸ Haro also has a paucal number, but I set it aside. It is incompatible with the definite markers that display syncretism (Wolde-Mariam 2015:42-43), and it is unclear whether it is compatible with the case markers that display syncretism.

using the term “absolutive” here; it refers to the case of direct objects, predicate nominals, and citation forms¹⁹).

Table 21: Haro Absolutive Case Marker

	Feminine	Masculine
Singular	-o	
Plural		-a

(Wolde-Mariam 2015: 47-48)

This pattern is visible on the absolutive pronouns in Table 19: the 3rd feminine singular pronoun has an *-o* suffix, the 3rd masculine singular has *-a* and the 3rd plural has *-a*. Thus, the convergent-to-gender syncretism is a metasyncretism in Haro, holding across two paradigms with different VIs.

Because genders are never distinguished in the plural in Haro, I propose that Haro has the same Impoverishment operation that removes gender features in the plural as Coptic, Amharic, and Maay. This is repeated in (17).

- (17) **Gender/Number Impoverishment (obligatory): Coptic, Maay, Amharic, and Haro**
 [+PL] → [+PL]
 [+/-FEM]

This successfully generates the verbal and pronominal patterns where gender distinctions are eliminated in the plural.

The definite determiner and absolutive case marker also require number distinctions to be eliminated in the plural since one form is used for both singular and plural numbers. In Amharic and Maay, this was accomplished by having an underspecified VI lack number features. In Haro, the number distinction must be eliminated **across VIs**, since this is a metasyncretism. Therefore, an Impoverishment operation is necessary which removes [+PL], and it is shown in (18), where X is a variable over categories.²⁰

- (18) Number Impoverishment (obligatory): holds in Haro

$$[+PL] \rightarrow \emptyset / \begin{array}{c} \diagup \quad \diagdown \\ \text{Agr} \quad \text{X} \\ \hline \end{array}$$

Definite determiners and absolutive case markers are the only categories that participate in nominal concord in Haro (although see Section 5). In Norris’s (2014) approach, a language stipulates which categories participate in concord, and an Agr node is inserted at those categories early on during PF. Therefore, (18) will only apply to definite determiners and absolutive case

¹⁹ Haro also has a marked nominative case for subjects.

²⁰ Since only two agreeing elements have the convergent-to-gender pattern (definite determiners, absolutive case markers), it would probably not be an insurmountable challenge for the learner to acquire them. However, it would be more parsimonious if their identical syncretisms could be accounted for with one mechanism, so I focus on developing an Impoverishment analysis.

markers since they are the only DP-internal agreement categories that have Agr nodes at PF. This keeps (18) from applying to, say, pronouns, which lack Agr nodes and do in fact maintain number distinctions (see Table 19).²¹

To take a specific example, the Vocabulary Items for the Haro definite determiner are in (19).

- (19) a. [+FEM],[AGR] ↔ -t / ___ [D],[+DEF]
 b. [AGR] ↔ -z / ___ [D],[+DEF]

In the singular, *-t* is inserted when the Agr node contains feminine features and *-z* otherwise. In the plural, before Vocabulary Insertion, the syntactic feature bundles are stripped of their gender and number features by the Impoverishment operations in (17) and (18). This results in (19)b being the only insertable VI ((19)a has a gender feature) and thus captures the convergence-to-gender pattern.

Overall, for this entire section, I have argued that convergence-to-gender is in fact the default-type syncretism that DM predicts should exist for number/gender. This novel type of syncretism can be accounted for within the DM framework across Maay, Amharic, and Haro.

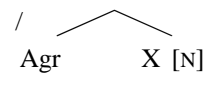
4 Larger Implications

While Section 3 integrates a new syncretism into the literature and shows that DM works nicely to account for it, one might still wonder: do these facts provide any reason to prefer DM to other morphological theories? Additionally, do these facts illuminate anything about syncretism in general? In this section, I explore these broader consequences of the analysis. In Section 4.1, I briefly compare DM and Paradigm Function Morphology (PFM) approaches to syncretism and conclude that, since DM is more restrictive, the fact that it predicts convergence-to-gender syncretism is a point in its favor. In Section 4.2, I argue that convergence-to-gender is truly a morphological phenomenon, contributing to the underdeveloped literature on how to distinguish between a syncretism and a syntactic effect.

4.1 Syncretism in DM and PFM

Paradigm Function Morphology (PFM) is a morphological theory based on relations between paradigms, developed most thoroughly in Stump 2001 and Stump 2016a (see also Stump 2002, 2006, 2007, 2012, 2016b and Stewart and Stump 2007). Syncretism in PFM has been fruitfully compared to syncretism in DM in Noyer 1998, Bobaljik 2002, and Kramer 2016. Roughly speaking, syncretism in PFM is similar to syncretism in DM in that it is encoded in two ways. The first is through underspecification of morphophonological exponents, similar to DM

²¹ There is not a clear consensus on whether an Agr node is required for verbal agreement (see Embick and Noyer 2007:305-306 for an example of verbal agreement with an Agr node). Even if it is, (18) can still be made to work. Assuming that all members of an extended projection of a noun share a [N] feature (Grimshaw 2005), then the Impoverishment operation can be restricted to apply only to those categories that have the feature [N], as in (i).

- (i) [+PL] → ∅ / 

underspecification of VIs. The second is by altering the features of syntactic feature bundles before they are expounded, similar to the DM operation of Impoverishment.

However, syncretism in PFM is different from DM in that there are no restrictions on the alteration of syntactic feature bundles (Noyer 1998, Bobaljik 2002, Baerman, Brown, and Corbett 2005:164). Thus, any type of syncretism is expected to occur, changing, deleting, or adding to syntactic features. In contrast, Impoverishment is restricted to deleting marked features and/or only occurring in a marked environment (see Nevins 2011 for the most thorough development of this idea). In other words, Impoverishment can delete marked features, or delete features when they are in a marked context, but it never add arbitrary features or alter features in any other way.²²

Because PFM is unrestricted, it is difficult to argue against; it will be able to capture any new pattern of syncretism, like the convergent-to-gender pattern. The larger point, then, is not that DM can account for convergent-to-gender and other theories cannot do so. Instead, it is significant that DM can account for a novel type of syncretism **at all** since it is more restricted compared to PFM. As laid out in Section 2, DM only allows for syncretisms where two syntactic feature bundles share a feature or where the syncretic form is a default. In fact, this is just what we find in gender-number syncretism: convergent-to-plural is a gender syncretism that happens when masculine and feminine syntactic feature bundles share a feature (plural), and convergent-to-gender is what occurs when the syncretic form used to realize those feature bundles is a default (it defaults to the singular form of one particular gender). Overall, then, the convergent-to-gender facts are compatible with DM because, despite its restrictiveness, it can account for this pattern and in fact predicts that it should exist.

4.2 Syncretism or Syntax?

So far, convergence-to-gender has been treated as a morphological phenomenon. I have assumed that syntactic feature bundles are fully specified for gender and number in the syntax, and that they are realized with underspecified VIs and/or are impoverished before Vocabulary Insertion. However, as discussed in Harley 2008, there is an alternative, syntactic way to approach syncretism. It may be that two features are not distinguished formally because the syntactic feature bundles lack those features from the get-go, i.e., in the syntax itself.

For the convergent-to-gender syncretisms discussed in Section 3, this would mean that plural nouns in Maay, Amharic and Haro are syntactically masculine. In other words, rather than “masculine” VIs surfacing at PF as a default, plurals nouns would be genuinely masculine in the syntax and that is why they trigger masculine agreement.²³ As for number, I assume that the syntactic feature bundles must be specified for number since they are interpreted as plural, so the VI’s used for any convergent-to-gender syncretism would still need to be underspecified for number (or there would have to be an Impoverishment operation on plural features, as in Haro). However, in this syntactic approach, there would be no need to underspecify or Impoverish the Vocabulary Items for gender.²⁴

²² In some DM analyses, Impoverishment is formalized as feature value deletion followed by insertion of the unmarked feature value (Noyer 1998, Harbour 2003, Calabrese 2011, Arregi and Nevins 2012). This is in keeping with Impoverishment only making a feature bundle **less** marked.

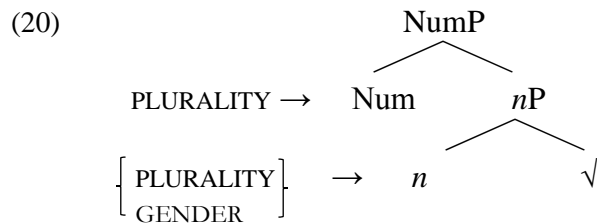
²³ In fact, this is how the definite determiner syncretism in Haro is described in Wolde-Mariam 2015 (p. 40).

²⁴ In Section 3, Maay, Amharic and Haro all independently needed gender Impoverishment in the plural to account for convergent-to-plural patterns in their verbal systems. However, nothing prevents convergence-to-gender from happening in a language that does **not** generally have convergent-to-plural patterns, and in so far as convergent-to-

In this section, building on my previous work (Kramer 2009, 2012 and 2016), I demonstrate that this alternative analysis is incorrect for Amharic, proving that the convergent-to-gender pattern is truly a morphological syncretism in this language. For Maay and Haro, there is not enough published data to determine if the convergent-to-gender pattern is morphological, but I speculate on how the preliminary evidence is promising in favor of a morphological approach. The implications of this section go beyond justifying the analysis in this particular paper. The question of syntax or morphology is relevant for every syncretism, and this section can be viewed as an addition to the small literature (Lecarme 2002, Harley 2008, Kramer 2015: Ch.8) on how to tell the difference.

4.2.1 Background

Before fleshing out a syntactic approach to convergence-to-gender, some baseline assumptions must be set about the syntactic representation of gender and number. Since the early 1990's, plural features have been argued to be on the syntactic head Number, henceforth referred to as Num (see e.g., Ritter 1991, 1992, 1995, Carstens 1991, Delfitto and Schrotten 1991, Valois 1991, Alexiadou, Haegeman, and Stavrou 2007). Much recent work has also argued that plural features can be located on *n*, either to the exclusion of plural features on Num (Lecarme 2002, Kramer 2015: Ch.8) or in addition to plural features on Num (Acquaviva 2008, Kramer 2009, 2012, 2016, Mathieu 2014).²⁵ There is also a growing body of evidence that gender features are located on *n* (Ferrari 2005, Lowenstamm 2008, Acquaviva 2009, Kramer 2012, 2015, *inter alia*) and, more controversially, that Num does not have gender features (Giurgea 2014, Kramer 2015). Putting all these assumptions together results in the structure in (20).²⁶



In sum, this paper will assume that gender is located on *n* and plurality is located on *n*, *n* and Num, or just Num.

In a syntactic approach to convergence-to-gender, all plural nouns would be syntactically masculine and this would explain why they appear with “masculine” determiners (other agreeing elements do not make gender distinctions in the plural, so there is no independent evidence on what the gender of a plural noun is). If plural nouns are associated exclusively with masculine gender, then the plural feature is most likely bundled with a masculine gender feature into a single syntactic node, say, X, such that X has the features [+PL] AND [-FEM].²⁷ If X has a gender

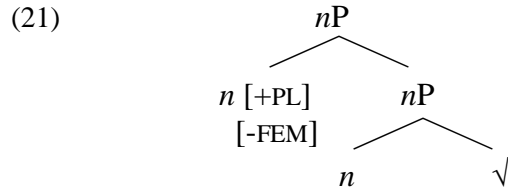
gender patterns are discussed in the literature, they are often discussed as if the nouns were syntactically masculine. Thus, I consider it necessary to provide additional evidence against a syntactic approach.

²⁵ Mathieu 2014 proposes number is on *n*, Div, and #, assuming a Borer-(2005)-style structure for the DP.

²⁶ Although see Acquaviva (this vol.) and Déchaine (this vol.) for a different perspective on the syntax of gender and number.

²⁷ Other possibilities for linking masculine gender and plural number are less plausible. It is unlikely that the syntax reverse-values an underlyingly feminine gender feature. It is also unlikely that plural Num selects *n*P's with

feature, then, according to the assumptions in (20), X must be a *n*. Therefore, any plural strategy with a gender feature must be the type of plural that is a realization of *n*. In the schematic tree representing this in (21), I assume that the plural *n* stacks on top of the *n* used to nominalize the root.



Since the gender feature on the plural *n* is higher than any gender feature on the lower *n*, it will be the source for agreement as per much research on stacked gender features (Kramer 2009, 2015, Steriopolo and Wiltschko 2010, de Belder 2011, Ott 2011).

(21) has been argued to be attested in Somali (Cushitic, spoken in Somalia, closely related to Maay (Paster 2010)). Somali has many different plural strategies (various suffixes, a change in tone, etc.), and each of them is associated with particular genders – Strategy X makes nouns masculine, Strategy Y makes them feminine, etc. (Lecarme 2002, Kramer 2015: Ch.8). Lecarme (2002) and Kramer (2015: Ch.8) demonstrate that these plural strategies behave like *n*'s using a variety of diagnostics e.g., that the plural strategies can appear closer to the root than (other) derivational morphology. So, if the convergent-to-gender pattern is actually syntactic, and plurality imposes masculine gender in the syntax, then the plural markers used on Amharic nouns should act like plural markers in Somali.²⁸

4.2.2 Amharic Plurality

However, it is clear that not all plural markers are *n*'s in Amharic. In this section, I review results from my previous work (Kramer 2009, 2012, 2016), demonstrating that, while some plural markers in Amharic are *n*'s, one marker is a clear Num. I then show that the convergent-to-gender syncretism is licit with the Num plural marker, demonstrating that plural nouns are not syntactically masculine.

Plural nominals in Amharic mostly take the plural suffix *-(w)ot/ɪf* ((22)) but some are irregularly pluralized via some other means ((23) e.g., a different suffix, templatic morphology, etc.).

masculine *n*'s; if so, it is not clear how the distribution of masculine *n* would be plausibly constrained such that feminine nouns never show up as masculine in the singular.

²⁸ The Somali facts also point up the difference between a morphological phenomenon and a syntactic effect, although they are not always discussed in this way. Determiners in Somali are often described as syncretic in that the masculine singular determiner can be used for feminine plural nouns and vice versa (see e.g., Baerman, Brown and Corbett 2005 as well as fn. 8). However, in Lecarme's and Kramer's approaches, the determiners are not syncretic. The gender of a plural noun is determined in the syntax by which plural *n* is merged, and the determiners simply reflect agreement with the gender on *n*.

- (22) a. lidʒ-otʃtʃ ‘children’
 b. k’äbäle-wotʃtʃ ‘districts’
 c. adäga-wotʃtʃ ‘accidents’
 d. rwatʃˀtʃˀ-otʃtʃ ‘runners’
 e. wiʃʃa-wotʃtʃ ‘dogs’
- (23) a. mämhir-**an** ‘teachers’
 b. k’al-**at** ‘words’
 c. känfär → känäfir ‘lips’
 d. ganen → aganint ‘demons’

There is a clear split in the behavior of the plurals: the regular plural suffix behaves like Num but the irregular plural strategies behave like *n*’s. In this section, I briefly reproduce some of the data and argumentation showing this from Kramer 2009, 2012, 2016.

First, it is well-known that *n*’s can impose selectional restrictions and only attach to certain stems, e.g., the nominal suffix *-ary* only suffixes to roots (*notary, dignitary*) or to stems ending in *-tion* in English (*a revolutionary, a functionary*, etc.). In Amharic, certain irregular plural suffixes, e.g., the suffix *-(y)an*, select for particular stems, e.g., nominals ending in the suffix *-awi*, as shown in (24).

- (24) a. ityoppiya ‘Ethiopia’
 b. ityoppiy-awi ‘Ethiopian (man/person)’
 c. ityoppiy-awi-t ‘Ethiopian (woman)’
 d. ityoppiy-awi-**yan** ‘Ethiopians’

However, the irregular plural suffix *-an* does not select for other stems, e.g., nominals ending in the agentive suffix *-(t)äñña*, as shown in (25).

- (25) a. särra ‘work’ (verb)
 b. särra-täñña ‘worker’
 c. *särra-täññ-an Int. ‘workers’
 d. särra-täññ-otʃtʃ ‘workers’

In contrast, the regular plural suffix displays no selectivity, combining freely with all roots/stems and thus not acting like a *n*.

Additionally, Amharic has double plurals, but only in the form [$\sqrt{\text{-IrregularPl-RegularPl}}$].

(26)	<u>Singular</u>	<u>Irregular Plural</u>	<u>Double Plural</u>	<u>Gloss</u>
	a. mämhir	mämhir-an	mämhir-an-otʃtʃ	teacher
	b. k'al	k'al-at	k'al-at-otʃtʃ	word
	c. mäś'haf	mäś'ahift	mäś'ahift-otʃtʃ	book
	d. wäyzäro	wäyzazirt	wäyzazirt-otʃtʃ	lady

This indicates that the irregular plural and the regular plural most likely are realizations of different syntactic heads,²⁹ with the irregular plural in a projection that is closer to the root, like *n* with respect to Num (see (20)).

Unusually, the Amharic plural system is also non-deterministic: every noun can combine with the regular plural -- even those that can (optionally) take an irregular plural strategy. This is shown in (27).

(27)	<u>Singular</u>	<u>Irregular Plural</u>	<u>Regular Plural</u>	<u>Gloss</u>
	a. mämhir	mämhir-an	mämhir-otʃtʃ	teacher
	b. k'al	k'al-at	k'al-otʃtʃ	word
	c. mäś'haf	mäś'ahift	mäś'haf-otʃtʃ	book
	d. wäyzäro	wäyzazirt	wäyzär-otʃtʃ	lady

This is further evidence for the regular plural being Num and the irregular being *n*: Num combines with all *n*Ps, but the plural *n* is choosy and only combines with particular roots, like a typical nominalizer.³⁰

Finally, and perhaps most strikingly, irregularly pluralized nouns can take further derivational suffixes. For example, in (28), the noun *hiwas* 'sense' has the irregular plural *hiwas-at* 'senses.' The adjectivalizing suffix *-awi* can be added to the plural, forming the adjective *hiwas-at-awi* 'sensory, perceptual.'

(28)	<u>Base</u>	<u>Irregular Plural</u>	<u>Derived Form</u>	<u>Gloss</u>
	a. täkl 'plant'	at(a)kilt	at(a)kilt-ännä	gardener
	b. hiwas 'sense'	hiwas-at	hiwas-at-awi	sensory, perceptual
	c. ganen 'demon'	aganint	aganint-am	demon-ridden
	d. k'al 'word'	k'al-at	k'al-at-ännä	chatterbox, sorcerer

In contrast, regularly pluralized nouns never feed derivation.

(29)	a. *täkl-otʃtʃ-ännä	'gardener'
	b. *hiwas-otʃtʃ-awi	'sensory, perceptual'
	c. *k'al-otʃtʃ-ännä	'chatterbox, sorcerer'

²⁹ Another potential analysis for the double plurals is that there is a single Num head that undergoes Fission (Halle 1997) or Enrichment (Müller 2007), creating two plural nodes. However, this analysis would be unable to capture the *n*-like properties of the irregular plural. See Kramer 2016 for further details.

³⁰ There is no substantive semantic difference between the irregular and regular plurals (Kramer 2016). Some of the irregular plurals are higher-register than the regular plurals, but not all. The irregular and regular plurals have the same distribution and are compatible with collective and distributive interpretations, low and high cardinal numerals, etc.

Overall, then, there is much evidence that Amharic plural suffix *-otʃʃ* is a Num whereas the other plural strategies are *n*'s.

Having established that the suffix *-otʃʃ* is not a *n*, it is time to return to the question of whether convergence-to-gender is morphological or syntactic. As noted in Section 4.1, if this pattern were due to the syntax, then the plural marker would be a *n*. So, the crucial question for Amharic is, do masculine determiners (i.e., the convergent-to-gender pattern) occur with feminine nouns that are pluralized via *-otʃʃ*? The answer is clearly positive, as shown in (30) and directly observed by Leslau (1995:156).

- (30) a. set-otʃʃ-u
 woman.F-PL-DEF.M
 'the women' (Leslau 1995:135)
 b. lam-otʃʃ-u
 cow.F-PL-DEF.M
 'the cows' (Leslau 1995:147)
 c. arog-it-otʃʃ-u
 old-FEM-PL-DEF.M
 'the old women' (Leslau 1995:154)
 d. nigis-t-otʃʃ-u
 queen.F-FEM-PL-DEF.M
 'the queens' (Leslau 1995:156)

The "masculine" determiner is used even when the noun has an overt feminine marker, as in (30)cd. Since *-otʃʃ* is a Num, it can be concluded that these nouns are not masculine in the syntax and that, instead, the masculine determiner appears with feminine nouns for the morphological reasons laid out in Section 3.2: gender is impoverished in the plural and the "masculine" determiner VI is underspecified for number and gender.

4.2.3 Extension and Summary

The plural system of Amharic is relatively well-studied, but the same cannot be said for Maay and Haro. However, the signs are promising that both of these languages have at least one Num plural marker. Maay resembles Amharic in that it has two types of plural markers: one suffix *-yaal* is used for all nouns, another suffix *-o* is used on a subset of nouns, and there are double plurals with the order *-o-yaal* (Paster 2010). This makes *-yaal* likely to be a Num, and Paster (2010:181) notes that feminine nouns ending in *-yaal* take masculine determiners. Haro has one main plural marker *-idé* that attaches to all nouns (with a phonologically-conditioned allomorph *-idé*; Wolde-Mariam 2015:43-44), so it is likely to be a Num. Since it appears with all nouns, it appears with feminine nouns that take masculine determiners and case markers, as in (31).

- (31) maačč -idé -z -a
 woman.F -PL -DEF.M -ABS.M
 'the women.ABS' (Wolde-Mariam 2015:48, (50))

So, it seems likely that the convergent-to-gender pattern is morphological in Maay and Haro like it is in Amharic.

Overall, in this section, I have shown that an alternative, syntactic analysis of the convergent-to-gender syncretism is incorrect. In Amharic (and probably Maay and Haro), the convergent-to-gender syncretism is truly a morphological phenomenon where a masculine exponent is inserted by default, not a syntactic effect of plural number rendering all nouns masculine.

5 Conclusion

This paper set out to describe and analyze a novel type of syncretism across several languages and to demonstrate that it is a morphological phenomenon. In Section 3, I developed analyses of convergent-to-gender syncretisms in Maay, Amharic and Haro using the tools of Distributed Morphology – in particular, showing that convergent-to-gender syncretism fills a gap in the typology of syncretisms for gender/number predicted by DM. In Section 4, I showed that it is a positive result that DM predicts the existence of this syncretism, and I also showed that the syncretism is truly morphological, thus supporting the analysis developed in Section 3. Section 4 is also of wider interest since it is one of the few case studies of how to distinguish a morphological syncretism from a lack of features in the syntax.

I close the conclusion with several open questions for future research. First, it is a striking fact that all of the convergent-to-gender syncretisms discussed in this paper involve determiners. However, it is not clear whether this fact is robust, especially because Amharic, Maay, and Haro are all distantly related (members of the Afroasiatic language family, albeit three different branches) and they are all spoken in the same region of the world (the Horn of Africa). It may turn out to be a quirk of the family or the area that convergent-to-gender syncretisms affect determiners, but if not, it will need an explanation. Also, there are some empirical nuances here. In Maay, demonstratives behave like determiners in that they are convergent-to-gender (see Table 9), but in Amharic they do not (they are convergent-to-plural; Leslau 1995:65, 67). In Haro, case markers also show the syncretism but case markers never agree in Amharic (Maay seems to lack case marking; Paster 2006:78). Finally, on one possible analysis, Haro does in fact display convergence-to-gender in a verbal paradigm: imperative/optative subject agreement, shown in Table 22.

Table 22: Haro Imperative/Optative Subject Agr Markers

	Singular	Plural
1st pers	-á-ni	-á-nu
2nd pers	-á	-á-yto
3rd pers	-á-yi (m.)	-utt-á-yi
	-á-ya (f.)	

(Wolde-Mariam 2015:127)

The suffix *-á* indicates imperative/optative mood. In the 3rd plural form, *-á* unusually comes after a suffix *-utt* and before the suffix *-yi*. The suffix *-yi* is also used for third person masculine singular, so it is possible that the VI *-yi* is not specified for number or gender features. However, I do not pursue this in more depth because it is unclear what *-utt* is (most likely an expression of plural number, but it does not seem to be a common plural indicator in the language) and it is unclear how this agreement is generated morphosyntactically (two separate heads in the syntax? PF rearrangement of Vocabulary Items or feature bundles?). Future research

will hopefully determine how to characterize precisely the categories that show convergent-to-gender syncretism across languages.

A second area for future work are the curious cases of singular agreement with plural nouns but with the **feminine singular** form across genders (the convergence-to-gender pattern examined here uses the masculine singular). Examples of this include definite determiners in German (plural forms are mostly syncretic with feminine singular forms) and non-human nouns in Modern Standard Arabic (which trigger feminine singular agreement when they are plural; see e.g., Fassi Fehri 1988). A similar case is politeness pronouns in German and Italian, which are feminine singular in form (e.g., *sie/Sie* ‘she’ or ‘you (pol.)’ in German). This pattern of facts initially might seem problematic to a DM approach. These syncretisms seem like default-type (meta)syncretisms in that a single form (feminine singular) is being used across contexts that share no features (e.g., the German feminine singular determiner and masculine plural determiner both have the form *die*). However, DM predicts that such a form should be the default, and to the best of my knowledge, there is little evidence that feminine is the default gender in these languages.

However, the issue is more complex than it may seem. First, for each of these cases, it must be carefully investigated whether the effect is syntactic (is there a special head introducing feminine gender in the syntax?) or morphological (an actual syncretism). If any of these effects turn out to be syntactic, then they are straightforward to explain in DM or any theory of morphosyntax since the syntactic feature bundles will match the morphological realization (that is, a feminine gender feature in the syntax would be realized with a feminine form in the morphology).

Even if any of these cases turn out to be morphological, though, it does not necessarily follow that they must involve a feminine form inserted as a default. For example, by taking a more nuanced look at the data (including adjectival inflection and considering case features), Sauerland 1996 develops an analysis of German determiner syncretism that successfully predicts the same forms will mostly be used for feminine singular contexts and plural contexts -- without specifying any of the forms as feminine per se. From another perspective, Fassi Fehri (1988) proposes a presyntactic redundancy rule for Arabic that removes the number specification and adds feminine gender to all nonhuman plural nouns; thus, agreement proceeds as normal for nonhuman (with singular used as a default) and there is no syncretism. So, it seems that there are multiple ways to analyze these facts that do not involve a feminine default form being inserted. Future work will hopefully reexamine some of these phenomena and explicitly integrate them into the broader phenomenon of convergence-to-gender across languages.

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