


# The Timing of Discontinuous Agreement

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🎁 Workshop in honour of Jochen Trommer's 50th birthday 🎁

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# Minimalist Distributed Morphology (MDM)

 **Trommer, Jochen (1999).** Morphology consuming syntax' resources: Generation and parsing in a minimalist version of Distributed Morphology. In *Proceedings of the ESSLI Workshop on Resource Logics and Minimalist Grammars*, Utrecht.

 **Goal:** reduce the '*multiplicity of rule types*' in Distributed Morphology (DM, Halle & Marantz 1993) to a single operation

 Vocabulary Insertion (VI)


 Fission is Vocabulary Insertion (§ 4)

 Impoverishment is Vocabulary Insertion (§ 5)

 Theme Insertion is Vocabulary Insertion (§ 6)

 Fusion is obviated by Vocabulary Insertion (§7)

# Today's talk

-  **Trommer, Jochen (1999).** Morphology consuming syntax' resources: Generation and parsing in a minimalist version of Distributed Morphology. In *Proceedings of the ESSLI Workshop on Resource Logics and Minimalist Grammars*, Utrecht.



Fission is Vocabulary Insertion (§ 4)



Impoverishment is Vocabulary Insertion (§ 5)



Theme Insertion is Vocabulary Insertion (§ 6)



Fusion is obviated by Vocabulary Insertion (§7)

## Roadmap

1. Fission / 'Fission is Vocabulary Insertion'
2. Challenge:  
Discontinuous agreement involving an elsewhere exponent

# Data in Trommer (1999)

	Singular	Dual	Plural
<b>1</b>	?-aktub	n-aktub	n-aktub
<b>2m</b>	t-aktub	<span>t</span> -aktub- <span>aa</span>	<span>t</span> -aktub- <span>uu</span>
<b>3m</b>	y-aktub	<span>y</span> -aktub- <span>aa</span>	<span>y</span> -aktub- <span>uu</span>

**Table:** Classical Arabic, fragment of the jussive paradigm of ‘write’  
(Halle 1997, cited from Trommer 1999, 2)

## **Main challenge for theories of discontinuous agreement:**

*one* syntactic agreement node → *two* morphemes in the surface form

# Fission (DM)

(e.g. Noyer 1992; Halle & Marantz 1993; Halle 1997; Hewett 2023)

(1) Example derivation (2M.DL):



AGR	[-1 -3 +pl +dl]	
Fission	[-1 -3] [+pl +dl]	
VI (Subset Principle, Halle 1997)	t-	-aa

(see Trommer 1999, 3)

# Fission is Vocabulary Insertion (MDM)

## Modified Insertion Process

(Trommer, 1999)

-  iterated insertion,  
i.e. multiple insertion of exponents into a single head
-  insertion always deletes features

(2) Example derivation (2M.DL):

AGR	[-1 -3 +pl +dl]
<hr/>	
1 <sup>st</sup> cycle of VI	<del>[-1 -3 +pl +dl]</del> t-
<hr/>	
2 <sup>nd</sup> cycle of VI	<del>[-1 -3 +pl +dl]</del> t-                      -aa
<hr/>	

(3) Vocabulary Items

(Trommer, 1999, 3)

- |    |       |             |
|----|-------|-------------|
| a. | /ʔ-/  | [+1 -3 -pl] |
| b. | /n-/  | [+1 -3 +pl] |
| c. | /t-/  | [-1 -3]     |
| d. | /y-/  | [+3]        |
| e. | /-aa/ | [+pl +dl]   |
| f. | /-uu/ | [+pl]       |

(building on this, see also Harbour 2008, 2023)

# The Challenge - Data I

Didinga (Surmic/South Sudan)

- (4) a.  $\boxed{h}$ -à-ìrìt- $\boxed{i}$   
1-ASP-cough-1 SG  
'I am coughing'
- b.  $\boxed{h}$ -à-ìrìt- $\boxed{ta}$   
1-ASP-cough-1 PL.EXCL  
'We (excl.) are coughing'
- c.  $\boxed{h}$ -à-írìt- $\boxed{i}$   
1-ASP-cough-1 PL.INCL  
'We (incl.) are coughing'
- (5) à-írìt- $\dot{i}$   
ASP-cough-3  
'He/She/It/They is/are coughing'

# The Challenge - Data II

	Singular			Plural	
1	h-	-i	(excl.)	h-	-Ca
			(incl.)	h-	-I
2		-i			-Cu
3		-I			-I

**Table:** Didinga subject agreement, intransitive verbs, incomplete

**Note** in the 1**PL.INCL**:

discontinuous agreement with a **suffix being syncretic with 3<sup>rd</sup>**



# 1PL.INCL - 3<sup>rd</sup> Syncretism

	Singular		Plural
1	[+1 -2 -3 -pl]	(excl.)	[+1 -2 -3 +pl]
		(incl.)	[+1 +2 -3 +pl]
2	[-1 +2 -3 -pl]		[-1 +2 -3 +pl]
3	[-1 -2 +3 -pl]		[-1 -2 +3 +pl]

**Table:** Overview Feature Specifications

(see e.g. with some variations Noyer 1992, Trommer 2008, Harbour 2016, Pertsova 2022)

## (6) Vocabulary entries

- a. -I [ ]
- b. h- [+1]
- c. -i [-3 -pl]
- d. -Ca [-2 +pl] / [+1]
- e. -Cu [-1 +2 +pl]

**Note** in the 1PL.INCL:

discontinuous agreement with a **radically underspecified exponent**

# ⚡ Fission is Vocabulary Insertion I

## (7) Derivation 1 PL.INCL

AGR	[+1 +2 -3 +pl]
1 <sup>st</sup> cycle of VI	[+1 +2 -3 +pl] h-
⚡ 2 <sup>nd</sup> cycle of VI	[+1 +2 -3 +pl] h-
	<div style="background-color: #cccccc; padding: 2px; display: inline-block;">-I*</div>

## (8) Vocabulary entries

- a. -I [ ]
- b. h- [+1]
- c. -i [-3 -pl]
- d. -Ca [-2 +pl] / [+1]
- e. -Cu [-1 +2 +pl]

\* What motivates the insertion of -I ?

# ⚡ Fission is Vocabulary Insertion II

## Motivation option #1

🏰 *'insertion always deletes features'* (Trommer, 1999)

🏰 *-I* is not radically underspecified but associated with a generic feature

### (9) Derivation 1 PL.INCL

AGR	[+1 +2 -3 +pl AGR]
<hr/>	
1 <sup>st</sup> cycle of VI	[+1 +2 -3 +pl AGR] h-
<hr/>	
2 <sup>nd</sup> cycle of VI	[+1 +2 -3 +pl AGR] h- <span style="color: red;">-I</span>
<hr/>	

### (10) Vocabulary entries

- a. -I [AGR]
- b. h- [+1]
- c. -i [-3 -pl]
- d. -Ca [-2 +pl] / [+1]
- e. -Cu [-1 +2 +pl]

## ⚡ Overgeneration!

(unless all other VIs except for *h-* are also associated with the generic feature, in Didinga this could be [NUMBER], Daniel Harbour p.c.)

# Separate Exponent Slots < VI

## (11) Derivation 1PL.INCL

Syntax	...
Morphology	...
	[+1] [+2 -3 +pl]
VI	[+1] [+2 -3 +pl]
(Subset Principle)	h- -I

## (12) Vocabulary entries

- a. -I [ ]
- b. h- [+1]
- c. -i [-3 -pl]
- d. -Ca [-2 +pl] / [+1]
- e. -Cu [-1 +2 +pl]

# Conclusion

The insertion of an **elsewhere exponent** in discontinuous agreement requires: separate exponent slots before VI

👉 **Discontinuity** < VI

Kramer (2023): **Discontinuity** < Haplology < VI

Hewett (2022): **Discontinuity** < 'Place of Insertion' < VI

👉 VI is too late to model discontinuous agreement

# Outlook



## **Maintain the original goal:**

to reduce the '*multiplicity of rule types*' in DM,  
i.e. model the effect of Fission with an independently needed  
operation



## **Alternative** (if VI is too late):

Can we model the effect of Fission with an (independently  
needed) syntactic operation?

(my dissertation project)

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