The Typology of Portmanteau Agreement

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Portmanteau Agreement

Two (Agreement) heads (morphological slots)

are expressed

by the same affix (vocabulary item)

Portmanteau Agreement in Guaraní (Gregores & Suárez 1967)

Intr. Nom.

	sg	pl
1	a-	ro-
2	re-	pe-
3	o-	

Intr. Abs.

	sg	pl
1	ʃe-	ore-
2	ne-	pene-
3	i-	

Transitive

Abs.

Nom.

	1sg	1pl	2sg	2pl	3
1sg			ro-	po-	a-
1pl					ro-
2sg	ʃe-	ore-			re-
2pl					pe-
3			ne-	pene-	o-

Three Types of Portmanteaus

Simplex: Apparent portmanteau exponent corresponds to a single syntactic head, the other one is Ø

Composite: Apparent portmanteau consists of two exponents each corresponding to a single syntactic head

Simplex + Context: Apparent Portmanteau exponent corresponds to a single syntactic head but shows allomorphic sensitivity which may be triggered by the other head

Composite + Context: Apparent portmanteau consists of two exponents and shows allomorphic sensitivity

Theoretical Claim

There are no person portmanteaus in the technical sense

Roadmap

1. The Framework: Distributed Morphology
2. Simplex and Composite Portmanteaus (Hungarian)
3. Contexts & Ambiguous Exponence (Amerindian)

Distributed Morphology (Halle & Marantz, 1993)

- Syntax manipulates abstract heads without phonological content
- Morphology interprets the output of Syntax
- Many types of morphological operations
  - **Impoverishment:** deletes morphosyntactic features
  - **Fission:** dissect one head into different separate heads
  - **Fusion:** fuses different lexical items into one
  - **Vocabulary Insertion:** inserts VIs into lexical items, restricted by Elsewhere Condition and Feature Hierarchies

Two Types of Minimal Elements

Lexical Items: $\begin{bmatrix} +1 \\ \text{-pl} \\ +\text{Nom} \end{bmatrix}$

Vocabulary Items: $\begin{bmatrix} +1 \\ \text{-pl} \\ +\text{Nom} \end{bmatrix} \leftrightarrow$ /unë/

Motivation for Two Types of Minimal Elements

- It is a pervasive property of natural language that syntactic differences are neutralized in morphological exponence (Syncretism)
- This is captured in DM by inserting underspecified VIs into fully specified syntactic nodes

Underspecification: Gender Agreement in Italian

lui e pazz-**o**
he is nuts-masc

Syntax: Copy gender features from subject to adjective

lei e pazz-**a**
she is nuts-fem

Vocabulary Insertion

$$\begin{bmatrix} +\text{Det} \\ +3 \\ +\text{masc} \end{bmatrix} \quad \text{e} \quad \text{pazz} \quad \begin{bmatrix} +\text{Agr} \\ +\text{masc} \end{bmatrix}$$

$$\begin{bmatrix} +\text{Det} \\ +3 \\ +\text{masc} \end{bmatrix} \qquad \begin{bmatrix} +\text{Agr} \\ +\text{masc} \end{bmatrix}$$

$$\updownarrow \qquad\qquad \updownarrow$$

/lui/ /-o/

Gender Agreement in 2nd Person

tu sei pazz-**o**
you (masc.) are nuts-masc

tu sei pazz-**a**
you (fem.) are nuts-fem

Underspecified Vocabulary Insertion

$$\begin{bmatrix} +\text{Det} \\ +2 \\ +\text{masc} \end{bmatrix} \quad \text{sei} \quad \text{pazz} \quad \begin{bmatrix} +\text{Agr} \\ +\text{masc} \end{bmatrix}$$

$$\begin{bmatrix} +\text{Det} \\ +2 \end{bmatrix} \qquad \begin{bmatrix} +\text{Agr} \\ +\text{masc} \end{bmatrix}$$

$$\updownarrow \qquad\qquad \updownarrow$$

/tu/ /-o/

Minimalist Distributed Morphology (Trommer 2003)

Only 1 Morphological Operation: Vocabulary Insertion

Vocabulary insertion: If M is a VI with syntactic features α and phonological features β, and S is a head with features γ, where α is a subset of γ, then delete the features of α in γ and add β to the phonological representation of S

Fission & Impoverishment in Minimalist DM

Fission is Multiple Insertion

- Multiple Insertion obviates fission
- Fission is only restricted by obligatory feature consumption
- Standard Case: Feature deletion blocks fission

Impoverishment is Zero Insertion:

- All vocabulary insertion consumes features
- Deletion bleeds further insertion
- Impoverishment = zero vocabulary insertion

Portmanteau Agreement in Hungarian (Trommer, 2003)

szeret-ek			‘I love’
love-1sg			
szeret-ek	egy	hercegnét	‘I love a princess’
love-1sg	a	princess:Acc	
szeret-**em**	a	hercegnét	‘I love the princess’
love-1sg	the	princess:Acc	
szeret-**lek**		téged	‘I love you’
love-1sg		you:Acc	

Portmanteau Agreement in Hungarian

		Object [-def]	[+def]
Subject	**1sg**	szeret-**ek** egy hercegnét	szeret-**em** a hercegnét
	2sg	szeret-**sz** egy hercegnét	szeret-**ed** a hercegnét
	3sg	szeret-**Ø** egy hercegnét	szeret-**i** a hercegnét

Portmanteau Analysis of Hungarian

-ek ↔ [+Nom +1 –pl]

-em ↔ [+Nom +1 –pl] [+Acc +def]

-lek ↔ [+Nom +1 –pl] [+Acc +2]

Main Problem for a Portmanteau Analysis

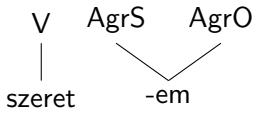
-em occurs in intransitive forms:

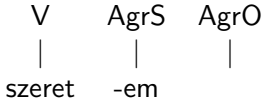
- Past tense Forms
- Intransitive Ik-verbs
- Possessive Forms and Inflected Postpositions

Distribution of -em

	intransitive ind. object	**intr. ik verb**	**intr./ind. past**	**def. object**	**possessors postpositions**
1sg	**-ek**	**-em**	**-em**	**-em**	**-em**
2sg	-sz/-el	-el	-eel	-ed	-ed
3sg	-Ø	-ik	-Ø	-i	-e
1pl	-ünk	-ünk	-ünk	-jük	-ün-k
2pl	-tek	-tek	-etek	-itek	-te-k
3pl	-nek	-nek	-ek	-ik	-(j)ü-k

Alternative Analysis: -em as a Simplex Portmanteau





(see Trommer 2003 for details)

Alternative Analysis: -lek/-etek as Composite Portmanteaus

Subject	szeret-nee-**l** V-cond-**2sg**	kert-**e** N-**3sg**
Subject	szeret-**ek** V-**1sg**	eerte-tte-**tek** V-Past-**2pl**
Object + Subject	szeret-**l**-**ek** V-**2sg**-1sg	eerte-tte-**e**-**tek** V-Past-**3sg**-**2pl**

Alternative Analysis: More Composite Portmanteaus

	intr. pres.	**intr. pres. ik**	**intr. past**	**def. obj. past**	**def. obj. pres.**
1sg	**-ek**	**-em**	**-em**	**-em**	**-em**
2sg	**-sz/-el**	**-el**	**-e-el**	**-ed**	**-ed**
3sg	**-Ø**	**-ik**	**Ø**	**-e-Ø**	**-i-Ø**
1pl	**-ün-k**	**-ün-k**	**-ün-k**	**-(j)ü-k**	**-(j)ü-k**
2pl	**-te-k**	**-te-k**	**-e-te-k**	**-e-e-te-k**	**-i-te-k**
3pl	**-ne-k**	**-ne-k**	**-e-k**	**-e-e-k**	**-i-k**

Surinam Carib Verb Agreement (Gildea 1998)

		Acusative				
		1	**2**	**12**	**3**	**–**
Nominative	**1**		k-		s-	Ø-
	2	k-			m-	
	12				k-iʃ	k-it
	3	j-	aj-	k-	n-	
	–					

Hierarchical Agreement in Surinam Carib

1st person/2nd person ≻ 3rd person

Only the agreement head

which is higher on the person hierarchy

is spelled out

		Absolutive				
		1	**2**	**12**	**3**	–
Nominative	**1**		k-			**s-/Ø-**
	2	k-				**m-**
	12					**kiʃ/kit**
	3	**j-**	**aj-**	**k-**		n-
	–					

Hierarchical Agreement in Surinam Carib

Ø ↔ [+3] / [+1]

Ø ↔ [+3] / [+2]

		Absolutive				
		1	**2**	**12**	**3**	–
Nominative	**1**		k-			**s-/Ø-**
	2	k-				**m-**
	12					**kiʃ/kit**
	3	**j-**	**aj-**	**k-**		n-
	–					

Portmanteau Analysis of Surinam Carib

s-/Ø-	↔	[+1 –2 +Nom]	j-	↔	[+1 –2 +Abs]
m-	↔	[–1 +2 +pl +Nom]	aj-	↔	[–1 +2 +Abs]
kiʃ-/kit-	↔	[+1 +2 +pl+Nom]	k-	↔	[+1 +2 +Abs]

k- ↔ [+1][+2]

Problems with the Portmanteau Analysis (I)

doesn't capture the fact that the restriction to agreement with 1 argument extends to all transitive forms:

		Absolutive				
		1	**2**	**12**	**3**	–
Nominative	**1**		k-			**s-/Ø-**
	2	k-				**m-**
	12					**kiʃ/kit**
	3	**j-**	**aj-**	**k-**		n-
	–					

Problems with the Portmanteau Analysis (II)

doesn't capture that *k-* appears in all contexts involving the features [+1] and [+2]:

		Absolutive				
		1	**2**	**12**	**3**	–
Nominative	**1**		**k-**		s-/Ø-	
	2	**k-**			m-	
	12				**kiʃ/kit**	
	3	j-	aj-	**k-**	n-	
	–					

Alternative Analysis of Surinam Carib

j-	**Ø-**

↓

k-	**Ø-**

- Head$\widehat{1}$ (1st person) has an overt allomorph contextually restricted to Head$\widehat{2}$
- Head$\widehat{2}$ is Ø anyway

Hierarchical Agreement in Surinam Carib (Revised)

1st person ≻ 2nd person ≻ 3rd person

Only the agreement head

which is higher (or equal) on the person hierarchy

is spelled out

		Absolutive				
		1	**2**	**12**	**3**	–
Nominative	**1**		**k-**		**s-/Ø-**	
	2	**k-**			**m-**	
	12				**kiʃ/kit**	
	3	**j-**	**aj-**	**k-**	n-	
	–					

Hierarchical Agreement in Surinam Carib (Revised)

Ø ↔ [+3] / [+1]

Ø ↔ [+3] / [+2]

Ø ↔ [+2] / [+1]

Ø ↔ [+3] / [+3]

		Absolutive				
		1	**2**	**12**	**3**	–
Nominative	**1**		**k-**		**s-/Ø-**	
	2	**k-**			**m-**	
	12				**kiʃ/kit**	
	3	**j-**	**aj-**	**k-**	n-	
	–					

Ambiguous Exponence (Trommer, 2006)

An affix is an ambiguous exponent

if it acts as a portmanteau marker in some contexts

and as a simple marker in other contexts

k- as an Ambiguous Exponent

k- ↔ [+1] [+2]
k- ↔ [+1 +2]

		Absolutive				
		1	**2**	**12**	**3**	–
Nominative	**1**		**k-**		s-/Ø-	
	2	**k-**			m-	
	12				**k**iʃ/**k**it	
	3	j-	aj-	**k-**	n-	
	–					

Notation for VI Contexts (Trommer, 2006)

P	↔	$F_1 \dots F_m$	/	$[C_1 \dots C_n]$	$F_1 \dots F_m$ in the context of $C_1 \dots C_n$ where $F_1 \dots F_m$ is in Head H_1, $C_1 \dots C_n$ are in head H_2 and $H_1 \neq H_2$
P	↔	$F_1 \dots F_m$	/	$C_1 \dots C_n$	$F_1 \dots F_m$ in the context of $C_1 \dots C_n$ where $F_1 \dots F_m$ is in Head H_1, $C_1 \dots C_n$ are in head H_2 and $H_1 = H_2$
P	↔	$F_1 \dots F_m$	/	$\{C_1 \dots C_n\}$	$F_1 \dots F_m$ in the context of $C_1 \dots C_n$ where $F_1 \dots F_m$ is in Head H_1, and $C_1 \dots C_n$ are in head H_2

Generally: $Ref(F_1 \dots F_m) \not\cap Ref(C_1, \dots, C_n)$

k- as an Ambiguous Exponent

k- ↔ [+1] / {+2}

		Absolutive				
		1	**2**	**12**	**3**	–
Nominative	**1**		**k-**		s-/Ø-	
	2	**k-**			m-	
	12				**k**iʃ/**k**it	
	3	j-	aj-	**k-**	n-	
	–					

Verb Agreement in Guaraní (Gregores & Suárez 1967)

Intr. Nom.

	sg	pl
1	a-	ro-
2	re-	pe-
3	o-	

Intr. Abs.

	sg	pl
1	ʃe-	ore-
2	ne-	pene-
3	i-	

Transitive

Abs.

Nom.

	1sg	1pl	2sg	2pl	3
1sg			ro-	po-	a-
1pl					ro-
2sg	ʃe-	ore-			re-
2pl					pe-
3			ne-	pene-	o-

Portmanteau Analysis of Guaraní

ro-	↔	[+1 +pl +Nom]	ore-	↔	[+1 +pl +Abs]
pe-	↔	[+2 +pl +Nom]	pene-	↔	[+2 +pl +Abs]
o-	↔	[+3 +Nom]	i-	↔	[+3 +Abs]

po- ↔ [+1+Nom][+2 +pl +Abs]

Hierarchical Agreement in Guaraní

Intr. Nom.

	sg	pl
1	a-	ro-
2	re-	pe-
3	o-	

Intr. Abs.

	sg	pl
1	ʃe-	ore-
2	ne-	pene-
3	i-	

Transitive

Abs.

Nom.

	1sg	1pl	2sg	2pl	3
1sg			ro-	po-	a-
1pl					ro-
2sg	ʃe-	ore-			re-
2pl					pe-
3			ne-	pene-	o-

Hierarchical Agreement in Guaraní

1st person ≻ 2nd person ≻ 3rd person

Only the agreement head

which is higher on the person hierarchy

is spelled out

Abs.

Nom.

	1sg	1pl	2sg	2pl	3
1sg			ro-	po-	a-
1pl					ro-
2sg	ʃe-	ore-			re-
2pl					pe-
3			ne-	pene-	o-

Hierarchical Agreement in Guaraní

Ø ↔ [+2] / [+1]

Ø ↔ [+3] / [+1]

Ø ↔ [+3] / [+2]

Abs.

Nom.	**1sg**	**1pl**	**2sg**	**2pl**	**3**
1sg			ro-	po-	a-
1pl					ro-
2sg	ʃe-	ore-			re-
2pl					pe-
3			ne-	pene-	o-

Hierarchical Agreement in Guaraní

Since [+2] heads are deleted in the context of [+1] heads

po- should be a [+1] Nom marker, not a portmanteau

(deletion of the [+2] Acc head is predicted anyway)

Abs.

Nom.	**1sg**	**1pl**	**2sg**	**2pl**	**3**
1sg			ro-	po-	a-
1pl					ro-
2sg	ʃe-	ore-			re-
2pl					pe-
3			ne-	pene-	o-

Alternative Analysis of Guaraní

a-	Ø-

↓

po-	Ø-

- Head1 has an overt allomorph contextually restricted to Head2
- Head2 is Ø anyway

Guaraní ro- as an Ambiguous Exponent

ro- ↔ [+1 +pl +Nom]

ro- ↔ [+1 +Nom][+2–pl+Abs]

Abs.

Nom.	**1sg**	**1pl**	**2sg**	**2pl**	**3**
1sg			ro-	po-	a-
1pl					ro-
2sg	ʃe-	ore-			re-
2pl					pe-
3			ne-	pene-	o-

The Iconic Representation of Number (Trommer, 2006)

a. Two-way number system

Singular **Plural**

▪ ▪
|
▪

b. Three-way number system

Singular **Dual** **Plural**

▪ ▪ ▪
| |
▪ ▪
|
▪

Constructed Number in Guaraní

ro- ↔ [+1 +Nom ▪] / {▪ −3}

Abs.

Nom.	**1sg**	**1pl**	**2sg**	**2pl**	**3**
1sg			**ro-**	**po-**	a-
1pl					**ro-**
2sg	ʃe-	ore-			re-
2pl					pe-
3			ne-	pene-	o-

Constructed Number in Guaraní

ro- ↔ [+1 +Nom ▪] / {▪ −3}

[+1 −3 +Nom ▪ − ▪] [+1 −3 +Nom ▪][+2 −3 +Abs ▪]

Alternative Analysis of Guaraní

ro- ↔ [+1 ▪ − ▪ +Nom]
pe- ↔ [+2 ▪ − ▪ +Nom]
o- ↔ [+3 +Nom]

ore- ↔ [+1 ▪ − ▪ +Abs]
pene- ↔ [+2 ▪ − ▪ +Abs]
i- ↔ [+3 +Abs]

po- ↔ [+1 +Nom ▪] / {▪ − ▪ −3}

ro- ↔ [+1 +Nom ▪] / {▪ −3}

Alternative Analysis of Guaraní

- Apparent Portmanteau realizes only subject agreement
- Ø-exponence of object agreement independently predicted by Hierarchical Agreement
- Context restrictions account for ambiguous exponence: Same VI acts as (non-)portmanteau in different contexts

Mojave (Munro 1976)

nʲ- ↔ [–3 +Acc] / {+1}
ʔ- ↔ [+1 +Nom] / {–2 +Abs}
m- ↔ [–3 +2] / {–1 +Nom}

		Object			
		1	**2**	**3**	–
Subject	**1**		nʲ-	ʔ-	
	2 (Ind)	nʲ-m-		m-	
	2 (Imp)	nʲ-k-		k-	
	3	nʲ-	m-	Ø-	

Maricopa (Gordon 1986)

nʲ- ↔ [–3 +Acc] / {+1}
ʔ- ↔ [+1] / {–3 +Nom} {–2 +Abs}
m- ↔ [–3 +2] / {–1 +Nom}

		Object			
		1	**2**	**3**	–
Subject	**1**		nʲ-	ʔ-	
	2 (Ind)	ʔ-nʲ-m-		m-	
	2 (Imp)	ʔ-nʲ-k-		k-	
	3	nʲ-	m-	Ø-	

Summary

- There are no portmanteau agreement markers which correspond to two syntactic heads
- Apparent portmanteaus can either be subanalysed or occur also as simplex markers
- Ambiguous Exponence is pervasive in portmanteaus and follows from context sensitivity

Empirical Prediction: Strategies for morphological learning/segmentation should avoid portmanteaus

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