

Blends

Main Claim We argue that different types of blends are derived from mechanisms and constraints that are independently motivated in the grammar rather than from “extragrammatical” mechanisms (as e.g. in Piñeros 2002). In the analysis we propose, blends are a templatic effect of integrating segmental material under a prosodic word node

1. Introduction

1.1. Blends

“formed by snipping components from existing words and stitching the components together either through simple concatenation or through concatenation coupled with overlap of shared phonological segments.” (Kelly, 1998, 579)

Portmanteaus: the combination two source words that have some shared property (similar meaning or similar sounds) and replicate the structure of one of the source words.

(e.g. Algeo 1977, Kubozono (1990), Bertinetto (2001),
Piñeros (2000), Piñeros (2002) or Lopez Rua (2004))

(1)	<i>Portmanteaus in Spanish</i>		Piñeros (2000), Piñeros (2002)
	ladrón	mákdonals	larónals
	“thief”	“McDonalds”	“McDonalds as a rip-off”
	pánsa	sàntaklós	pànsáklos
	“belly”	“Santa Clause”	potbellied Santa Clause”
	dédo	dèmokrásja	dèdokrásja
	“finger”	“democracy”	“a system of election by pointing with the finger”
	pèrsonàlidad	péčo	péčoàlidad
	“personality”	“breast”	“the personality of a woman with the implication that her breasts are an important part of it”

Generalizations:

(cf. analysis in Piñeros (2000), Piñeros (2002)):

1. the prosodic structure of the head of the construction is preserved
2. all the segmental elements of the non-head are realized
⇒ the segmental material of both source words is integrated under the prosodic structure of the head and the segments of the non-head overwrite segmental material of the head

► **Analysis:** Portmanteaus are the result of a constraint forcing all material in a morphological complex word to be dominated by head-prosody.

1.2. *Background assumption: Coloured Containment van Oostendorp (2006a)*

(2) *Morphological Colours*

e.g. van Oostendorp (2006a), van Oostendorp (2006b)

Every morpheme has its own specific colour¹ that allows to identify all elements belonging to this morpheme.

(3) *Containment*

Prince and Smolensky (1993)

Every element of the phonological input representation is contained in the output.

- nothing can be literally deleted in containment – but it can be marked as phonetically “invisible”, i.e. not integrated under the highest prosodic node under violation of (4-a)
- inserted elements lack any morphological colour since they do not belong to any morpheme (4-b)

(4) *Faithfulness constraints in coloured containment*

(van Oostendorp, 2006a, 40)

a. $\text{PARSE}_{\phi(\alpha)} \Rightarrow \text{MAX}$

The morphological element α must be incorporated into the phonological structure.

= Assign a violation mark for every morphologically coloured element that is not phonetically realized.

b. $\text{PARSE}_{\mu(\alpha)} \Rightarrow \text{DEP}$

The phonological element α must be incorporated into the morphological structure.

= Assign a violation mark for every colourless element.

- we assume some concept to underlying association lines as well ²

(5) IDENT-AL_{XY}

Assign a violation mark for every instance of two morphologically coloured elements X Y that are:

- a. related to each other with a colourless (=inserted) association line or
- b. related to each other with a phonetically unrealized (=deleted) association line.

2. Blends as Word-Templates

2.1. *Templatic Morphology: Truncation*

- our proposal is couched within the tradition of Prosodic Morphology (McCarthy and Prince (1986/1996)): prosodic nodes as morphemes
- e.g. truncatory morphology as in English short name formation (6)

¹Indices in the following.

²Oostendorp himself concludes that “also association lines needs to be preserved from the input to the output” (van Oostendorp, 2006a, 107), one strategy to implement faithfulness to association lines would be the assumption of Turbidity Theory Goldrick (2001).

(6) *Truncated names in English (Lappe, 2006, 11)*

Alfreda	Alf
Camille	Cam
Elizabeth	Liz
Marvin	Marv

- truncatory morphology is indeed regular word formation, e.g. monosyllabic truncated names in English
- a syllable template is affixed
- it must be realized – integrated into the prosodic structure – due to REALIZE MORPHEME (7), this excludes a candidate (9)a with a floating syllable template

(7) REALIZE MORPHEME:

Assign a violation mark for every morphological colour that is only present on phonetically unrealized elements.

- this templatic affix is the head of the morphological construction (cf. e.g. Di Sciullo and Williams (1987))
- a constraint ensures that segmental material must be dominated by head material (9), excluding candidate (9)b

(8) HDDOM:

Assign a violation if there is at least one phonetically realized segment that is not dominated by the highest prosodic head-node.

*“prosodic head-node” – a prosodic node
that is morphologically affiliated with the head
of the morphological construction*

- since MAX_S is ranked under HDDOM and the template is “too small” to integrate all segmental material, some is left unrealized in the winning candidate (9)d

(9) *Truncated names*³

	RM	HDDOM	MAX _S	MAX _σ
<p>a.</p> <p>[marvin]</p>	*!			*
<p>b.</p> <p>[marvin]</p>		*!		*
<p>c.</p> <p>[mar]</p>			***!	**
<p>d.</p> <p>[marv]</p>			**	**

⇒ The effects of affixing a templatic foot or syllable are clear and attested (e.g. Mc Carthy and Prince (1986/1996), Downing (2006),...)

⇒ And what about templatic prosodic words?

- if every constituent of the prosodic hierarchy is a potential (templatic) affix, this should also hold for prosodic words
- but their effect is far from obvious: all base material would simply be integrated under this

³In the following, boldfaced elements (segments, association lines) are inserted/colourless and dotted association lines are morphologically coloured but phonetically unrealized.

morphological prosodic foot

- we argue that blend constructions are an instance of a templatic prosodic word effect (although no empty prosodic word node is affixed)

2.2. *Blends*

- we have established that all segmental material of the non-head must be realized in the blend (overwriting material of the head) – this follows from a faithfulness constraint parametrized to the head/non-head status of segmental material (10)

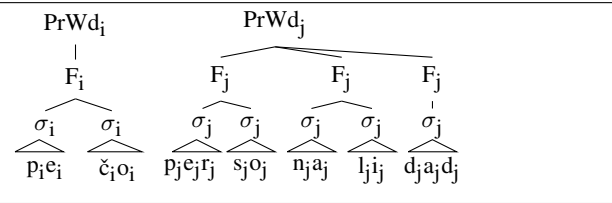
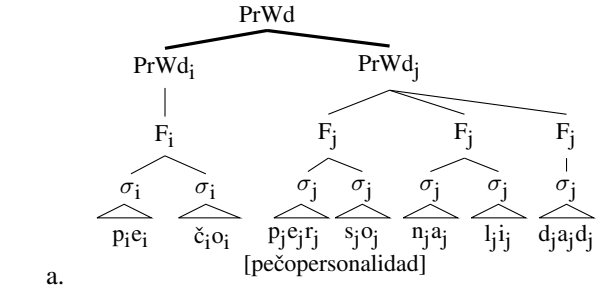
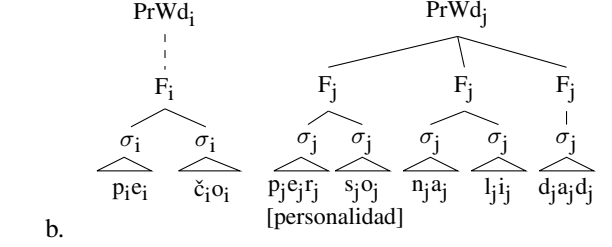
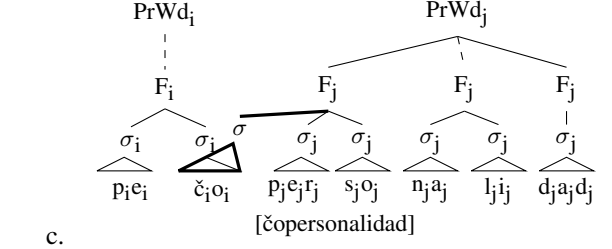
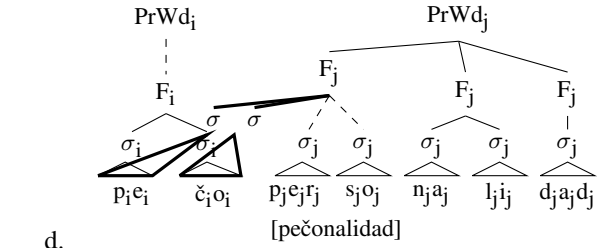
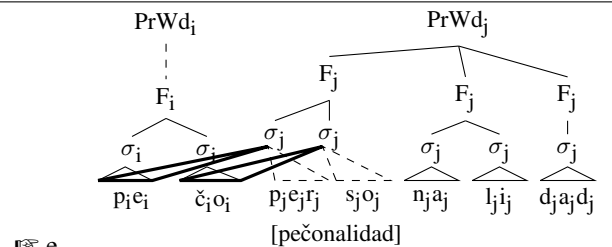
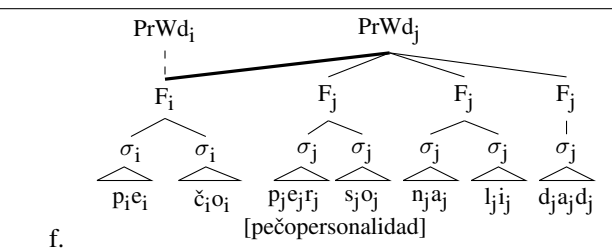
(10) MAX_{SNonHd} :

Assign a violation mark for every morphologically coloured segment of the non-head (daughter of the morphological root node) that is not phonetically realized.

Derivation (11)

- both source words enter the derivation with a complete prosodic structure (assigned in an earlier stratum)
- in a blend (below: “pèrsonàlidád”), one of the two source words is the head of the construction
- HDDOM is active and forces all material to be dominated by head-prosody, i.e. by the 5 syllables, 3 feet and the prosodic word dominating “pèrsonàlidád”
- a candidate (11)a that simply concatenates both source words under another (inserted) prosodic word node is excluded by HDDOM
- HDDOM could be satisfied if the non-head remains unrealized as in (11)b – this is excluded by MAX_{SNonHd} (and RM as well)
- partial deletion (11)c of the non-head satisfies RM but is nevertheless excluded by MAX_{SNonHd}
- candidates (11)c+d both realize all non-head material and integrate it under prosodic head-material
- (11)d wins over (11)c since it avoids insertion of epenthetic syllables
- a faithfulness constraint penalizing a new association relation between prosodic words and feet ($IDEN\text{-}AL_{PRWD\text{-}FT}$ (=ID_{P-F}), cf. (5)) excludes a candidate (11)f that integrates all feet under the head-prosodic word node

(11) *Blends*

	IDP-F	MAX _{SNHd}	HDDOM	DEP _σ	MAX _S
					
<p>a.</p> 			*!		
<p>b.</p> 		*!***		**	****
<p>c.</p> 		*!*		*	**
<p>d.</p> 				*!*	*****
<p>e.</p> 					****
<p>f.</p> 					*!

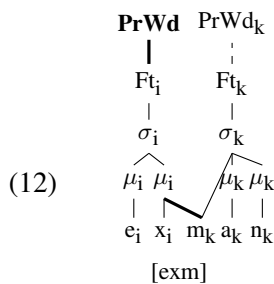
2.3. *A Misprediction?*

What about affixation of a segmental affix?

- if an affix is the head of the construction and this affix is dominated by prosodic structure with its own morphological colour,
- if HDDOM is active in a language and therefore all material strives to be dominated by this prosodic material
- and if epenthesis of prosodic material is excluded
(as in the ranking for the truncation pattern in (9))

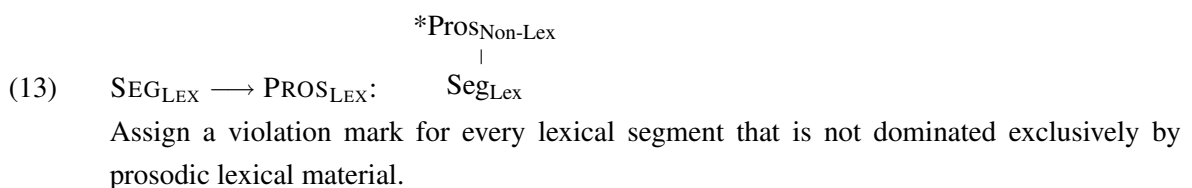
⇒ Doesn't the theory predict truncation of all stem material that is "too much" to be integrated under the affix' prosody?

e.g. Dutch: if the affix "ex" with its own prosodic structure attaches to a stem like "man"⁴, isn't a structure as in (12) predicted only realizing segmental material that is dominated by affix-prosody?



Solution:

- the constraint $SEG_{LEX} \longrightarrow PROS_{LEX}$ in (13) excludes a situation in which a lexical morpheme (=stem) is dominated by prosodic material belonging to a functional morpheme (=affix)



- if $SEG_{LEX} \longrightarrow PROS_{LEX}$ is ranked high, it is impossible for a stem to satisfy HDDOM, i.e. to be dominated by head-prosody
- and if this violation of HDDOM is unavoidable and MAX_S and RM force realization of the stem, prosodic material of both stem and affix is integrated under a new prosodic word node as in candidate (14)a

⁴Booij (2002).

(14) *Segmental affixation*

	IDP-F	RM	*ProSNon-Lex SegLex	HDDOM	MAX _S	MAX _σ
a. [exman]	*!			*		
b. [exman]			*!***			
c. [ex]		*!			***	*
d. [exm]			*!		**	*
e. [exman]				*		*

3. OT alternatives

3.1. *Bat-El (1996)*

- analyses Hebrew blends that are instances of telescopes
- most important observation for her analysis:

one consonant that both source word have in common: “*Designated identical segment*”

- DIS as “cut-point”: all material between the two occurrences of this DIS is deleted
- deletion triggered by constraint DISC (talking explicitly about Designated identical segments) (15).

(15) DESIGNATED IDENTICAL SEGMENT CONSTRAINT

(Bat-El, 1996, 235) If there is a consonant α that appears in both stems of the base of the blend, then there must be unparsed segmental material such that

- a. one occurrence of α is the last (first) parsed segment before (after) the unparsed string and
 - b. the other occurrence of α is the last (first) unparsed segment in the unparsed string.
- the telescopes are at least as long as the longer source word (but longer in most cases): this is ensured through templatic constraints restricting the size of a blend (16)

(16) *Templatic constraints*

(Bat-El, 1996, 237)

- a. $*\text{TEMP}(<): *Temp^B < Temp^{LS}$
(The syllabic template of the blend must not be smaller than that of the longer stem.)
- b. $*\text{TEMP}(=): *Temp^B = Temp^{LS}$
(The syllabic template of the blend must be identical to that of the longer stem.)

► explicit constraints for the blend construction that are actual descriptions of the process of blend-formation

3.2. *Piñeros (2002)*

(core idea is identical to the analysis in Piñeros (2002))

- the ALIGN-constraint (17) forces the two source words to have one identical edge
- the MAX-constraints (18) ensure the asymmetry: head prosody is preserved and non-head segments

(17) ALIGN-MWD:

Align edge x of MWd_1 with the corresponding edge of MWd_2 .

- (18) *Faithfulness constraints* (Piñeros, 2002, 23)
- a. MAX(PROS)HD:
Every prosodic unit in the head source word must have a correspondent in the portman-teau.
 - b. MAX(SEG)N-HD:
Every segment in the non-head source word must have a correspondent in the portman-teau.

- the constraints in (17)/(18) are not “principles found in natural languages” (Piñeros, 2002, 23), they are limited to the extragrammatical morphology
- and actually the additional machinery of ALIGN-MWD is unnecessary: if faithfulness to the segmental material of the non-head and to the prosodic structure of the non-head is forced, “overwriting” results automatically

Summary

- instead of “extragrammatical” constraints specific to the blend construction (as in Bat-El (1996), Piñeros (2000), Piñeros (2002)), we proposed an analysis in which the independent motivated mechanism derive instances of blends
- we argued that blending is a predicted word-template effect in a theory assuming prosodic categories as morphological templates
- the derivation of blending in our theory followed from a constraint HDDOM that in addition predicted instances of truncatory morphology and from the constraint LEXINT
- the constraint HDDOM derives the cross-linguistic generalization that only lexical stems but never affixes can serve as a template: only heads can “overwrite” prosodic structure of a non-head

References

- Bat-El, Outi (1996), Phonologically-based word formation : Modern hebrew blends, in U.Kleinhenz, ed., ‘Interfaces in phonology’, Akademie Verlag, Berlin, pp. 231–250.
- Bertinetto, Pier Marco (2001), Blends and syllable structure: A four-fold comparison, in M.Lorente, N.Alturo, E.Boix, M.-R.Lloret and L.Payrató, eds, ‘La gramática i la semántica en l’estudi de la variació’, Promociones y Publicaciones Universitarias de Barcelona, Barcelona, pp. 59–112.
- Booij, Gert (2002), Prosodic restrictions on affixation in dutch, in G.Booij and J.van Marle, eds, ‘Yearbook of Morphology’, Kluwer, Dordrecht, pp. 183–202.
- Di Sciullo, Anna and Edwin Williams (1987), *On the definition of word*, MIT Press, Cambridge.
- Downing, Laura (2006), *Canonical forms in prosodic morphology*, Oxford Linguistics.
- Goldrick, Matthew (2001), Turbid output representations and the unity of opacity, in ‘Proceedings of NELS 30’, Amherst, MA: GLSA, pp. 231–245.
- Kelly, Michael (1998), ‘To “brunch” or to “brench”’: some aspects of blend structure’, *Linguistics* **36**, 579–590.

- Kubozono, Haruo (1990), 'Phonological constraints on blending in English as a case for phonology-morphology interface', *Yearbook of morphology* **3**, 1–20.
- Lappe, Sabine (2006), 'English prosodic morphology', draft version.
- Lopez Rúa, Paula (2004), 'The categorial continuum of English blends', *English Studies* **85**, 63–76.
- McCarthy, John and Alan Prince (1986/1996), 'Prosodic morphology 1986', Technical Report 32, Rutgers University Center for Cognitive Science, 1996. Available at: <http://works.bepress.com>.
- Piñeros, Carlos-Eduardo (2000), 'Word-blending as a case of non-concatenative morphology in Spanish', ROA 343-0999.
- Piñeros, Carlos-Eduardo (2002), 'The creation of portmanteaus in the extragrammatical morphology of Spanish', ROA 526-0602.
- Prince, Alan and Paul Smolensky (1993), 'Optimality theory: Constraint interaction in generative grammar', Rutgers University Center for Cognitive Science Technical Report 2.
- van Oostendorp, Marc (2006a), 'A theory of morphosyntactic colours', Ms., Meertens Institute, Amsterdam.
- van Oostendorp, Marc (2006b), 'Transparent morphology causes phonological opacity', Paper presented at the 2006 GLOW Workshop on Phonological Opacity.