Overriding default orderings in inflectional morphology

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1. Two types of default ordering in inflectional morphology

- the linear order of an affix with respect to the stem to which it attaches
- the linear order in which blocks of realization rules apply

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Both sorts of order may be regulated by defaults and overrides:

- ***default-affixation overrides*** are conditioned by ***affixation-inversion property sets***
- ***default-composition overrides*** are conditioned by ***composition-inversion property sets***

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Talk outline

1. Examples of default ordering
2. Three default-ordering operators
3. French pronominal clitics
4. A PFM analysis of French pronominal clitics
5. Two concluding remarks

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1.1 A default-affixation override: Swahili relative affixes

(1) Swahili relative affixes

GENDER	SINGULAR	PLURAL
m/wa	*ye*	*o*
m/mi	*o*	*yo*
ki/vi	*cho*	*vyo*
ji/ma	*lo*	*yo*
n/n	*yo*	*zo*
u	*o*	—
u/n	*o*	*zo*
ku	*ko*	—

Swahili relative affixes are prefixed by default, but are suffixed in tenseless affirmative forms

(2a)

a–na–vyo–vi–soma
SUBJ:CL.m–TNS–REL:CL.vi–OBJ:CL.vi–read
‘(books) which he is reading’

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a–na–vyo–vi–soma

SUBJ:CL.m–TNS–REL:CL.vi–OBJ:CL.vi–read

‘(books) which he is reading’

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a–na–vyo–vi–soma

SUBJ:CL.m–TNS–REL:CL.vi–OBJ:CL.vi–read

‘(books) which he is reading’

(2b)

a–si–vyo–vi–taka
SUBJ:CL.m–NEG–REL:CL.vi–OBJ:CL.vi–want
‘(books) which he doesn’t want’

(2b)

a–si–vyo–vi–taka

SUBJ:CL.m–NEG–REL:CL.vi–OBJ:CL.vi–want

‘(books) which he doesn’t want’

(2b)

a–si–vyo–vi–taka

SUBJ:CL.m–NEG–REL:CL.vi–OBJ:CL.vi–want

‘(books) which he doesn’t want’

(2c)

a–vi–taka–vyo
SUBJ:CL.m–OBJ:CL.vi–want–REL:CL.vi
‘(books) which he wants’

(2c)

a–vi–taka–vyo

SUBJ:CL.m–OBJ:CL.vi–want–REL:CL.vi

‘(books) which he wants’

(2c)

a–vi–taka–vyo

SUBJ:CL.m–OBJ:CL.vi–want–REL:CL.vi

‘(books) which he wants’

1.2 A default-composition override: Fula subject and object agreement

In Fula relative past tense verb forms, subject agreement precedes object agreement by default;

this default is overridden in forms in which 1sg subject agreement coincides with 2sg or 3sg.class.1 object agreement

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this default is overridden in forms in which 1sg subject agreement coincides with 2sg or 3sg.class.1 object agreement

(3a)

mball–u–mi–ɓe’
help–REL.PAST.ACT–SUBJ:I–OBJ:them.CL.2
‘I helped them’

(3a)

*mball–u–**mi**–be’*

help–REL.PAST.ACT–SUBJ:I–OBJ:them.CL.2

‘I helped them’

(3a)

mball–u–mi–ɓe’

help–REL.PAST.ACT–SUBJ:I–OBJ:them.CL.2

‘I helped them’

(3b)

mball–u–ɗaa–mo’
help–REL.PAST.ACT–SUBJ:you–OBJ:him.CL.1
‘you (sg.) helped him’

(3b)

mball–u–ɗaa–mo’

help–REL.PAST.ACT–SUBJ:**you**–OBJ:him.CL.1

‘you (sg.) helped him’

(3b)

mball–u–ɗaa–mo’

help–REL.PAST.ACT–SUBJ:you–OBJ:him.CL.1

‘you (sg.) helped him’

(3c)

mball–u–maa–mi’
help–REL.PAST.ACT–OBJ:you–SUBJ:I
‘I helped you (sg.)’

(3c)

mball–u–maa–mi’
help–REL.PAST.ACT–OBJ:you–SUBJ:I
‘I helped you (sg.)’

(3c)

mball–u–maa–mi’
help–REL.PAST.ACT–OBJ:you–SUBJ:I
‘I helped you (sg.)’

(3d)

mball–u–moo–mi’
help–REL.PAST.ACT–OBJ:him.CL.1–SUBJ:I
‘I helped him’

(3d)

mball–u–moo–mi’
help–REL.PAST.ACT–OBJ:him.CL.1–SUBJ:I
‘I helped him’

(3d)

mball–u–moo–mi’
help–REL.PAST.ACT–OBJ:him.CL.1–SUBJ:I
‘I helped him’

2. Three default-ordering operators

(4a) Default-prefixation operator [<]

$$[<\mathbf{S}, X]$$

set of affixation-inversion property sets

affix

(4a) Default-prefixation operator [<]

$$[<S, X]$$

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(4a) Default-prefixation operator [<]

$$[<S, X]$$

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(4a) Default-prefixation operator [<]

[< S, X]

applies to realize the pairing ⟨Y, σ⟩
of a stem Y with a morphosyntactic
property set σ

(4a) Default-prefixation operator [<]

$$[<\mathbf{S}, X](\langle Y, \sigma\rangle) = \langle YX, \sigma\rangle \text{ if } \sigma \in \mathbf{S};$$
$$= \langle XY, \sigma\rangle \text{ otherwise.}$$

(4a) Default-prefixation operator [<]

$[<\mathbf{S}, X](\langle Y, \sigma\rangle) = \langle YX, \sigma\rangle$ if $\sigma \in \mathbf{S}$;
$= \langle XY, \sigma\rangle$ otherwise.

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(4b) Default-suffixation operator [>]

(analogous to [<])

[<] and Swahili relative affixes

(5) ***Paradigm function*** for
Swahili relative verb forms

Where σ is a morphosyntactic property set and X is the root of verbal lexeme L,

$$\text{PF}(\langle \text{L}, \sigma \rangle) = [\text{IV} : [\text{III} : [\text{II} : [\text{I} : \langle \text{X}, \sigma \rangle]]]]$$

(6) ***Nar notation***

[*n* : ⟨Y, σ⟩] is the result of applying the narrowest applicable rule in Block *n* to ⟨Y, σ⟩

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(7) ***Realization rules***
for Swahili relative verb forms

a. **Block I** (object agreement)
b. **Block II** (relative affixes)
c. **Block III** (tense, polarity)
d. **Block IV** (subject agreement)

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d. **Block IV** (subject agreement)

(7b) **Block II** (in which μ = su or ob)

V,{REL(μ):{sg, m/wa}}: ⟨X, σ⟩ → [<**S**, *ye*](⟨X, σ⟩)
V,{REL(μ):{sg, ki/vi}}: ⟨X, σ⟩ → [<**S**, *cho*](⟨X, σ⟩)
V,{REL(μ):{sg, n/n}}: ⟨X, σ⟩ → [<**S**, *yo*](⟨X, σ⟩)
V,{REL(μ):{pl, m/wa}}: ⟨X, σ⟩ → [<**S**, *o*](⟨X, σ⟩)
V,{REL(μ):{pl, ki/vi}}: ⟨X, σ⟩ → [<**S**, *vyo*](⟨X, σ⟩)
V,{REL(μ):{pl, n/n}}: ⟨X, σ⟩ → [<**S**, *zo*](⟨X, σ⟩)

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V,{REL(μ):{pl, ki/vi}}: ⟨X, σ⟩ → [<**S**, *vyo*](⟨X, σ⟩)

V,{REL(μ):{pl, n/n}}: ⟨X, σ⟩ → [<**S**, *zo*](⟨X, σ⟩)

(8) ***Affixation-inversion property sets*** in Swahili

S is the set of only and all tenseless affirmative property sets

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By default:

$$[<\boldsymbol{S}, \mathit{vyo}](\langle \mathrm{Y}, \sigma \rangle) = \langle \mathit{vyo}\mathrm{Y}, \sigma \rangle$$

Where σ is an affixation-inversion property set:

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(9) Proof of *a–na–vyo–vi–soma*

‘(books) which he is reading’

(10) Proof of *a–vi–taka–vyo*

‘(books) which he wants’

(11) Default-composition operator [○]

a. Recursive definition of ***block construct***
   i. If m is a rule block, then m is a block construct.
   ii. If m, n are block constructs and $\mathbf{S}$ is a set of composition-inversion property sets, then $[\circ \mathbf{S}, m, n]$ is a block construct.

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   i. If *m* is a rule block, then *m* is a block construct.
   ii. If *m*, *n* are block constructs and **S** is a set of composition-inversion property sets, then [○**S**, *m*, *n*] is a block construct.

(11) Default-composition operator [○]

b. ***Nar*** [narrowest applicable rule] ***notation*** (revised)

Given block construct BC and pairing ⟨Y, σ⟩:

- if BC is a block construct [○**S**, *m*, *n*],
  [BC : ⟨Y, σ⟩] = [*n* : [*m* : ⟨Y, σ⟩]] if σ ∈ **S**,
  = [*m* : [*n* : ⟨Y, σ⟩]] otherwise;
- if BC is a rule block, [BC : ⟨Y, σ⟩] is the result of applying the narrowest applicable rule in BC to ⟨Y, σ⟩.

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[○] and Fula verb agreement

(12) ***Realization rules*** for relative past tense verb forms in Fula

a. **Block TENSE**

b. **Block SUBJ**

c. **Block OBJ**

(12) ***Realization rules*** for relative past tense verb forms in Fula

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a. **Block TENSE**

b. **Block SUBJ**

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(13)

Paradigm function for relative past tense verb forms in Fula

PF(⟨L, σ⟩)

$$= [[\circ\mathbf{S}, \text{OBJ}, \text{SUBJ}] : [\text{TENSE} : \langle X, \sigma \rangle]]$$

(14) *Composition-inversion property sets* in Fula

S =

{ {AGR(su):{1sg}, rel. past act., AGR(ob):{2sg}},
{AGR(su):{1sg}, rel. past act., AGR(ob): {3sg, CL.1}},
{AGR(su):{1sg}, rel. past mid., AGR(ob):{2sg}},
{AGR(su):{1sg}, rel. past mid., AGR(ob): {3sg, CL.1}} }

(14) ***Composition-inversion property sets*** in Fula

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{AGR(su):{1sg}, rel. past mid., AGR(ob):{2sg}},
{AGR(su):{1sg}, rel. past mid., AGR(ob): {3sg, CL.1}} }

By default:

$$[[\circ\mathbf{S}, \textsc{obj}, \textsc{subj}] : \langle X, \sigma \rangle]$$
$$= [\textsc{obj} : [\textsc{subj} : \langle X, \sigma \rangle]]$$

Where σ is an affixation-inversion property set:

$$[[\circ\mathbf{S}, \textsc{obj}, \textsc{subj}] : \langle X, \sigma \rangle]$$
$$= [\textsc{subj} : [\textsc{obj} : \langle X, \sigma \rangle]]$$

By default:

$$[[\circ\mathbf{S}, \text{OBJ}, \text{SUBJ}] : \langle X, \sigma \rangle] = [\text{OBJ} : [\text{SUBJ} : \langle X, \sigma \rangle]]$$

Where σ is an affixation-inversion property set:

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(15) Proof of *mball–u–mi–6e'*
'I helped them'

(16) Proof of *mball–u–moo–mi'*
'I helped him'

3. French pronominal clitics

(17) Basic template for proclitic local-argument pronouns

A (ACC or DAT)	B (ACC)	C (DAT)
me	*le*	*lui*
te	*la*	*leur*
se	*les*	
nous		
vous		

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nous		
vous		

(18) *Jean* { *me* / *te* / *se* / *le* / *la* / *nous* / *vous* / *les* } *verra.*

(19) *Jean* { *me* / *te* / *se* / *lui* / *nous* / *vous* / *leur* } *donnera le livre.*

(20) *Jean* { *me* / *te* / *se* / *nous* / *vous* } { *le* / *la* / *les* } *présentera.*

(21) *Jean* { *le* / *la* / *les* } { *lui* / *leur* } *présentera.*

(22) a. *Jean me te présentera.

b. Jean me présentera à toi.

c. Jean te présentera à moi.

(22) a. **Jean me te présentera.*
b. *Jean me présentera à toi.*
c. *Jean te présentera à moi.*

(23) *Jean { *me* / *te* / *se* / *nous* / *vous* } { *lui* / *leur* } *présentera.*

(24) *Jean me présentera à lui.*

(23) *Jean { *me* / *te* / *se* / *nous* / *vous* } { *lui* / *leur* } *présentera.*

(24) *Jean me présentera à lui.*

(25) Basic template for enclitic local-argument pronouns

D (ACC)	E (ACC or DAT; 3rd person DAT only)
le	*moi*
la	*toi*
les	*lui*
	nous
	vous
	leur

(26) a. *Présentez* - { *le* / *la* / *les* } - { *moi!* / *lui!* / *nous!* / *leur!* }

b. *Dépêche-toi!*

c. *Dépêchez-vous!*

(27) Clitic climbing

a. *Marie le lui a fait manger.*

‘Marie made him eat it.’

b. *Jean me la fait envoyer.*

‘Jean has me send it.’

or ‘Jean has it sent to me.’

c. *Pierre la lui a fait écrire par Jean.*

‘Pierre made Jean write it to him.’

Extra datives: ethical datives

(28) *Il te nous a passé un de ces savons!*
'He gave us an incredible telling-off!'

(29) *%Nous ne nous vous le faisons pas dire.*
'We couldn't agree more, you don't need to tell us.'
[Literally: 'We don't make you say it, we really don't.']

Extra datives: ethical datives

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[Literally: 'We don't make you say it, we really don't.']

(30) Extra datives: clitic climbing

a. *Elle me te les a fait envoyer.*
'She made me send them to you.'

b. *Elle me les lui a fait envoyer.*
'She made me send them to her.'

c. **Elle leur les lui a fait envoyer.*
Putatively:
'She made them send them to her.'

(30) Extra datives: clitic climbing

a. *Elle me te les a fait envoyer.*
'She made me send them to you.'

b. *Elle me les lui a fait envoyer.*
'She made me send them to her.'

c. **Elle leur les lui a fait envoyer.*
Putatively:
'She made them send them to her.'

(30) Extra datives: clitic climbing

a. *Elle me te les a fait envoyer.*
'She made me send them to you.'

b. *Elle me les lui a fait envoyer.*
'She made me send them to her.'

c. ***Elle leur les lui a fait envoyer.***
Putatively:
'She made them send them to her.'

(31) Extra datives: clitic climbing

a. %*Jean me te semble fidèle.*
'Jean seems to me to be faithful to you.'

b. %*Jean me lui semble fidèle.*
'Jean seems to me to be faithful to her.'

c. **Jean lui leur semble fidèle.*
Putatively:
'Jean seems to her to be faithful to them.'

(31) Extra datives: clitic climbing

a. %*Jean me te semble fidèle.*
'Jean seems to me to be faithful to you.'

b. %*Jean me lui semble fidèle.*
'Jean seems to me to be faithful to her.'

c. **Jean lui leur semble fidèle.*
Putatively:
'Jean seems to her to be faithful to them.'

(32) Expanded proclitic template for non-local-argument as well as local-argument pronouns

A′ (“extra” DAT)	A (ACC or DAT)	B (ACC)	C (DAT)
me	*me*	*le*	*lui*
te	*te*	*la*	*leur*
se	*se*	*les*	
nous	*nous*		
vous	*vous*		

4. A PFM analysis of French pronominal clitics: Defaults and overrides

4.1 Preliminary assumptions

(35) Synthetic property sets:
Sets of specifications
of AGR and TAM

(36) Clitic property sets:
Sets of specifications of POL,
pronominal ACC
and pronominal DAT

(35) Synthetic property sets:
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(37)

	Synthetic paradigm of DONNER	Clitic-group paradigm of DONNER
Sample cell	⟨DONNER, {AGR:{3sg}, fut}⟩	⟨*donnera*, {AGR:{3sg}, fut} ∪ {affirm, ACC:{3sgm}, DAT:{3sg}}⟩
Its realization	⟨*donnera*, {AGR:{3sg}, fut}⟩	⟨*le lui donnera*, {AGR:{3sg}, fut} ∪ {affirm, ACC:{3sgm}, DAT:{3sg}}⟩

(37)

	Synthetic paradigm of DONNER	Clitic-group paradigm of DONNER
Sample cell	⟨DONNER, {AGR:{3sg}, fut}⟩	⟨*donnera*, {AGR:{3sg}, fut} ∪ {affirm, ACC:{3sgm}, DAT:{3sg}}⟩ ⟨*le lui donnera*, {AGR:{3sg}, fut} ∪ {affirm, ACC:{3sgm}, DAT:{3sg}}⟩
Its realization	⟨*donnera*, {AGR:{3sg}, fut}⟩	

(37)

	Synthetic paradigm of DONNER	Clitic-group paradigm of DONNER
Sample cell	⟨DONNER, {AGR:{3sg}, fut}⟩	⟨*donnera*, {AGR:{3sg}, fut} ∪ {affirm, ACC:{3sgm}, DAT:{3sg}}⟩
Its realization	⟨*donnera*, {AGR:{3sg}, fut}⟩	⟨*le lui donnera*, {AGR:{3sg}, fut} ∪ {affirm, ACC:{3sgm}, DAT:{3sg}}⟩

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Sample cell	⟨DONNER, {AGR:{3sg}, fut}⟩	⟨*donnera*, {AGR:{3sg}, fut} ∪ {affirm, ACC:{3sgm}, DAT:{3sg}}⟩
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Its realization	⟨*donnera*, {AGR:{3sg}, fut}⟩	⟨*le lui donnera*, {AGR:{3sg}, fut} ∪ {affirm, ACC:{3sgm}, DAT:{3sg}}⟩

4.2 Realizing clitic-group paradigms

(38) ***Realization rules*** for French pronominal clitics

a. **Block I.**

V,{ACC:{3sg, masc, nonrefl}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{le}](\langle X, \sigma \rangle)$
V,{ACC:{3sg, fem, nonrefl}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{la}](\langle X, \sigma \rangle)$
V,{ACC:{3pl, nonrefl}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{les}](\langle X, \sigma \rangle)$

b. **Block II.** Where μ = ACC or DAT,

V,{μ:{1sg}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{me}](\langle X, \sigma \rangle)$
V,{μ:{2sg}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{te}](\langle X, \sigma \rangle)$
V,{μ:{3, refl}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{se}](\langle X, \sigma \rangle)$
V,{μ:{1pl}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{nous}](\langle X, \sigma \rangle)$
V,{μ:{2pl}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{vous}](\langle X, \sigma \rangle)$
V,{DAT:{3sg, nonrefl}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{lui}](\langle X, \sigma \rangle)$
V,{DAT:{3pl, nonrefl}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{leur}](\langle X, \sigma \rangle)$

(38) ***Realization rules*** for French pronominal clitics

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V,{μ:{1sg}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{me}](\langle X, \sigma \rangle)$
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V,{μ:{2pl}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{vous}](\langle X, \sigma \rangle)$
V,{DAT:{3sg, nonrefl}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{lui}](\langle X, \sigma \rangle)$
V,{DAT:{3pl, nonrefl}}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{leur}](\langle X, \sigma \rangle)$

(38) ***Realization rules*** for French pronominal clitics

c. **Block III.**

V, {DAT2:τ}: ⟨X, σ⟩ → ⟨Y, σ⟩,
where [II : ⟨X, {DAT:τ}⟩] = ⟨Y, {DAT:τ}⟩

b. **Block IV.**

V, {neg}: ⟨X, σ⟩ → ⟨*ne* X, σ⟩

(39) The set $\mathbf{S}_1$ of ***affixation-inversion property sets*** for (38a,b):

$\mathbf{S}_1$ is the set of affirmative imperative property sets

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$\mathbf{S}_1$ is the set of affirmative imperative property sets

(40) Clause in the definition
of the French ***paradigm function***

PF(⟨W, σ⟩)
= [IV : [III : [[∘**S**$_2$, II, I] : ⟨W, σ⟩]]]

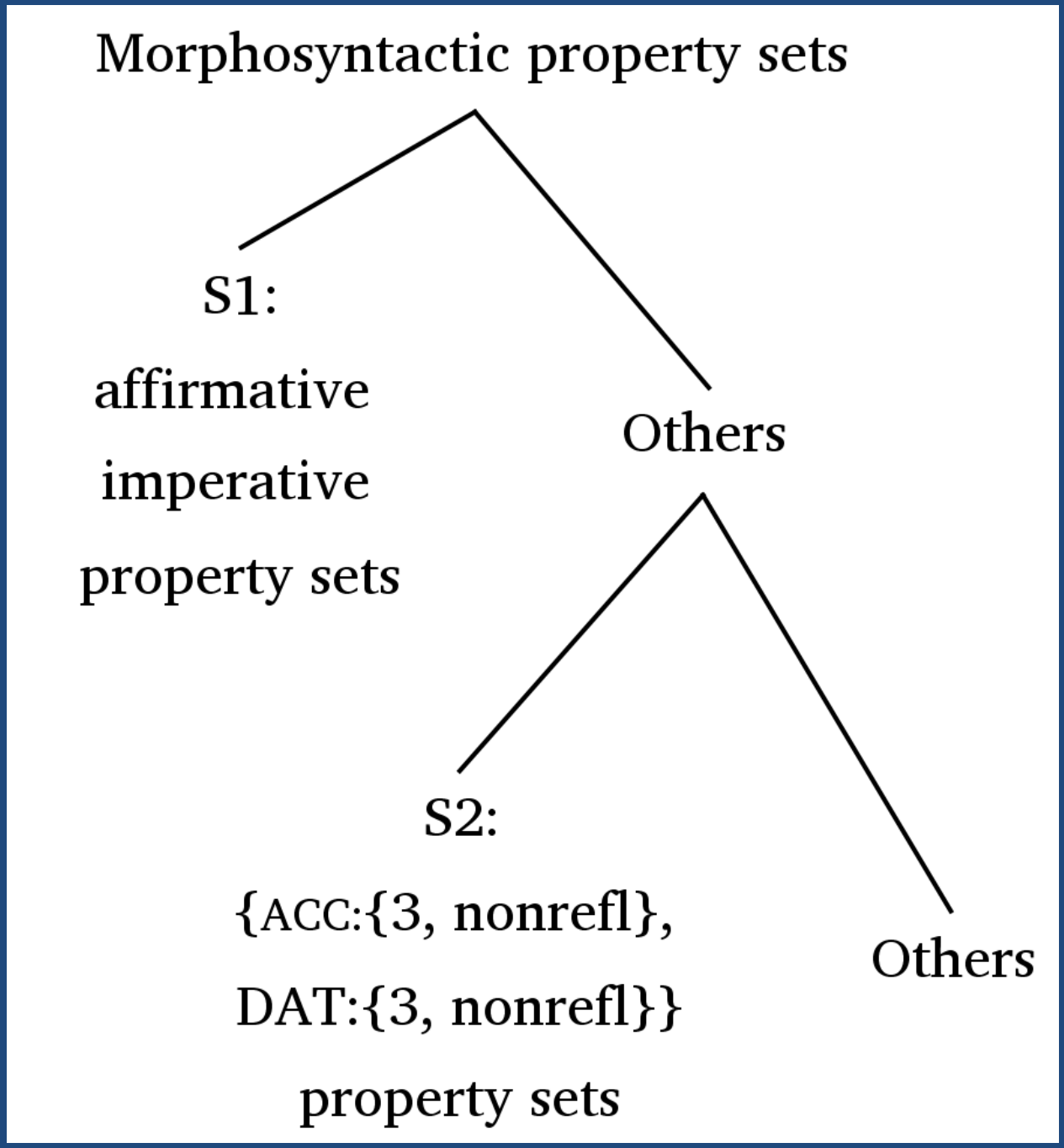
(41)

The set $\mathbf{S}_2$ of ***composition-inversion property sets*** for (40):

$\mathbf{S}_2$ is the smallest set containing every well-formed extension of (a) that is not an extension of (b):

a. {ACC:{3, nonrefl}, DAT:{3, nonrefl}}
b. {affirmative, imperative}.

(42)


Morphosyntactic property sets
S1:
affirmative
imperative
property sets
Others
S2:
{ACC:{3, nonrefl},
DAT:{3, nonrefl}}
property sets
Others

(43) Proof of *(Vous) me la présentez*

‘You introduce her to me’

(44) Proof of *(Vous) la leur présentez*

‘You introduce her to them’

(45) Proof of *Présentez-la-moi!*

‘Introduce her to me!’

(N.B.: Finally in a clitic group, *me, te* assume the shapes *moi, toi*.)

4.3 Predicting the "*me-lui* constraint"

(17) Basic template for proclitic local-argument pronouns

A (ACC or DAT)	B (ACC)	C (DAT)
me	*le*	*lui*
te	*la*	*leur*
se	*les*	
nous		
vous		

(46)

	A	B	C		
a.	*Jean*	*me*		*verra.*	‘Jean will see me.’
b.	*Jean*		*les*	*verra.*	‘Jean will see them.’
c.	*Jean*	*me*	*les*	*présentera.*	‘Jean will introduce them to me.’
d.	*Jean*		*les*	*lui présentera.*	‘Jean will introduce them to her.’
e.	**Jean*	*me*		*lui présentera.*	Putatively: ‘Jean will introduce me to her.’

(47) Person Case Constraint:
*1st/2nd/*se* acc. clitic + nonethical dat. clitic
(Rezac 2010:155)

(48) Czech

Chci *mu* *tě* *ukázat.*
I.want him.DAT you.SG.ACC show.INF
‘I want to show you (sg.) to him.’

(49) Polish

Wczoraj *mnie* *jemu* *przedstawiłeś.*
yesterday me.ACC him.DAT introduced.2SG.MASC
‘Yesterday you (sg. masc.) introduced me to him.’

(50) Feature cooccurrence restriction

If SL-2 or SL-[5] is nonempty,
then SL-4 is empty.

(Miller & Sag 1997: 597)

(51) Feature cooccurrence restriction

{CLTS ⟨…, x : {*obj*},…,{*dat*},…⟩}
$\Rightarrow$ x : {*3*,*nonrefl*}

(Bonami & Boyé 2007: 305)

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If SL-2 or SL-[5] is nonempty,
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(Miller & Sag 1997: 597)

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{CLTS ⟨…, x : {*obj*},…,{*dat*},…⟩}
⇒ x : {*3*,*nonrefl*}

(Bonami & Boyé 2007: 305)

Because clitics from Groups A and C are introduced by the same rule block, the proposed analysis entails the "*me-lui* constraint"

(38b) **Block II.** Where μ = ACC or DAT,

V,{μ:{1sg}}:	$\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{me}](\langle X, \sigma \rangle)$
V,{μ:{2sg}}:	$\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{te}](\langle X, \sigma \rangle)$
V,{μ:{3, refl}}:	$\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{se}](\langle X, \sigma \rangle)$
V,{μ:{1pl}}:	$\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{nous}](\langle X, \sigma \rangle)$
V,{μ:{2pl}}:	$\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{vous}](\langle X, \sigma \rangle)$
V,{DAT:{3sg, nonrefl}}:	$\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{lui}](\langle X, \sigma \rangle)$
V,{DAT:{3pl, nonrefl}}:	$\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{leur}](\langle X, \sigma \rangle)$

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(52) σ = {AGR:{3sg}, fut,
affirm, ACC:{1sg}, DAT:{3sg, nonrefl}}

(53) PF($\langle$*présentera*, $\sigma\rangle$)

(38b) **Block II.** Where μ = ACC or DAT,

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V,{μ:{2pl}}:	$\langle X, \sigma\rangle \rightarrow [<\mathbf{S}_1, vous](\langle X, \sigma\rangle)$
V,{DAT:{3sg, nonrefl}}:	$\langle X, \sigma\rangle \rightarrow [<\mathbf{S}_1, lui](\langle X, \sigma\rangle)$
V,{DAT:{3pl, nonrefl}}:	$\langle X, \sigma\rangle \rightarrow [<\mathbf{S}_1, leur](\langle X, \sigma\rangle)$

(52) σ = {AGR:{3sg}, fut,
affirm, ACC:{1sg}, DAT:{3sg, nonrefl}}

(53) PF(⟨*présentera*, σ⟩)

(38b) **Block II.** Where μ = ACC or DAT,

V,{μ:{1sg}}:	⟨X, σ⟩ → [<**S**$_1$, *me*](⟨X, σ⟩)
V,{μ:{2sg}}:	⟨X, σ⟩ → [<**S**$_1$, *te*](⟨X, σ⟩)
V,{μ:{3, refl}}:	⟨X, σ⟩ → [<**S**$_1$, *se*](⟨X, σ⟩)
V,{μ:{1pl}}:	⟨X, σ⟩ → [<**S**$_1$, *nous*](⟨X, σ⟩)
V,{μ:{2pl}}:	⟨X, σ⟩ → [<**S**$_1$, *vous*](⟨X, σ⟩)
V,{DAT:{3sg, nonrefl}}:	⟨X, σ⟩ → [<**S**$_1$, *lui*](⟨X, σ⟩)
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V,{μ:{3, refl}}:	⟨X, σ⟩ → [< **S**$_1$, *se*](⟨X, σ⟩)
V,{μ:{1pl}}:	⟨X, σ⟩ → [< **S**$_1$, *nous*](⟨X, σ⟩)
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V,{μ:{3, refl}}:	⟨X, σ⟩ → [<**S**$_1$, *se*](⟨X, σ⟩)
V,{μ:{1pl}}:	⟨X, σ⟩ → [<**S**$_1$, *nous*](⟨X, σ⟩)
V,{μ:{2pl}}:	⟨X, σ⟩ → [<**S**$_1$, *vous*](⟨X, σ⟩)
V,{DAT:{3sg, nonrefl}}:	⟨X, σ⟩ → [<**S**$_1$, *lui*](⟨X, σ⟩)
V,{DAT:{3pl, nonrefl}}:	⟨X, σ⟩ → [<**S**$_1$, *leur*](⟨X, σ⟩)

(52) σ = {AGR:{3sg}, fut,
affirm, ACC:{1sg}, DAT:{3sg, nonrefl}}

(53) PF(⟨*présentera*, σ⟩)

(54) ***Narrowness***. Where (a) and (b) are realization rules, (a) is narrower than (b) iff either
(i) C = C′ and τ_2 is a proper subset of τ_1 or
(ii) C is a proper subset of C′.
(a) C, τ_1: $\langle X, \sigma\rangle \rightarrow f_1(\langle X, \sigma\rangle)$
(b) C′, τ_2: $\langle X, \sigma\rangle \rightarrow f_2(\langle X, \sigma\rangle)$

4.4 A unified account of proclitic and enclitic pronouns

(55) A hypothetical possibility

a. Paradigm function:
$PF(\langle X, \sigma\rangle) = [[\circ \mathbf{S}_3, \text{II}, \text{I}] : \langle X, \sigma\rangle]$

b. Block I: C, {}: $\langle X, \sigma\rangle \rightarrow [<\mathbf{S}_3, y](\langle X, \sigma\rangle)$

c. Block II: C, {}: $\langle X, \sigma\rangle \rightarrow [<\mathbf{S}_3, z](\langle X, \sigma\rangle)$

d. $\mathbf{S}_3 = \{\sigma_2\}$

(56) a. $PF(\langle X, \sigma_1\rangle) = \langle zyX, \sigma_1\rangle$

b. $PF(\langle X, \sigma_2\rangle) = \langle Xzy, \sigma_2\rangle$

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c. Block II: C, {}: $\langle X, \sigma\rangle \rightarrow [<\mathbf{S}_3, z](\langle X, \sigma\rangle)$

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(56) a. $PF(\langle X, \sigma_1\rangle) = \langle zyX, \sigma_1\rangle$

b. $PF(\langle X, \sigma_2\rangle) = \langle Xzy, \sigma_2\rangle$

(55) A hypothetical possibility

a. Paradigm function:
$PF(\langle X, \sigma \rangle) = [[\circ \mathbf{S}_3, \text{II}, \text{I}] : \langle X, \sigma \rangle]$

b. Block I: C, {}: $\langle X, \sigma \rangle \rightarrow [< \mathbf{S}_3, y](\langle X, \sigma \rangle)$

c. Block II: C, {}: $\langle X, \sigma \rangle \rightarrow [< \mathbf{S}_3, z](\langle X, \sigma \rangle)$

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(57) a. *Me* *lo* *spedisce*.
1SG.DAT 3SG.ACC sends
‘He sends it to me.’

b. *Spedisci-me-lo!*
send.IMPV-1SG.DAT-3SG.ACC
‘Send it to me!’

(58)

a. *O* *Paulo* *deu-no-lo.*
the Paulo gave-1.PL.DAT-3.SG.MASC.ACC
‘Paulo gave it to us.’

b. *O* *Paulo* *não* *no-lo* *deu.*
the Paulo NEG 1.PL.DAT-3.SG.MASC.ACC gave
‘Paulo didn't give it to us.’

The proposed analysis does not require clitic sequences to be generated as a separate constituent that is positioned as a unit with respect to its host.

(59)

a. *Je leur y en ai porté.*
'I carried some there to them.'

b. *Envoyez-leur-y-en!*
'Send some to them there!'

(60)

Realization rules for the "adverbial" clitics

a. **Block EN.**

V, {EN:yes}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{en}](\langle X, \sigma \rangle)$

b. **Block Y.**

V, {Y:yes}: $\langle X, \sigma \rangle \rightarrow [<\mathbf{S}_1, \textit{y}](\langle X, \sigma \rangle)$

(61) Revised ***paradigm function***

PF($\langle$W, $\sigma\rangle$) =

[IV : [III : [[$\circ$**S**$_1$, [$\circ$**S**$_2$, II, I],[$\circ$**S**$_1$, Y, EN]] : $\langle$W, $\sigma\rangle$]]]

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(17) Basic template for proclitic local-argument pronouns

A (ACC or DAT)	B (ACC)	C (DAT)
me	*le*	*lui*
te	*la*	*leur*
se	*les*	
nous		
vous		

(25) Basic template for enclitic local-argument pronouns

D (ACC)	E (ACC or DAT; 3rd person DAT only)
le	*moi*
la	*toi*
les	*lui*
	nous
	vous
	leur

(62) a. *Vous nous le donnez.*
'You give it to us.'

b. *Donnez-le-nous!* 'Give it to us!'

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'I carried some there to them.'

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'Send some to them there!'

Proclitic and enclitic instances of the same clitic are introduced by the same rule, and the interaction of rule blocks conforms to a single structural generalization.

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The proposed analysis can be adapted to accommodate dialects other than the "standardized French" dialect considered here. Cf. e.g. (63), (64).

5. Two concluding remarks

(65) Huave completive affix *t*

a. [*mojk-o*]-*t*
face.down-THEME.VOWEL-COMPL
's/he lay face down'

b. *t*-[*e-mojk-o-r*]
COMPL-2-face.down-THEME.VOWEL-2.INTRANS
'you (sg.) lay face down'

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a. A second default-suffixation operator $[>]_2$

Where σ is a morphosyntactic property set, X is an affix and Y is a stem:

$[>\mathbf{C}, X]_2$ is a function such that

$[>\mathbf{C}, X]_2(\langle Y, \sigma\rangle) = \langle XY, \sigma\rangle$ if Y satisfies **C**;

$= \langle YX, \sigma\rangle$ otherwise.

b. V, {completive}: $\langle X, \sigma\rangle \rightarrow$ $[>[\text{vowel}]\ldots[\text{cons}], t]_2(\langle X, \sigma\rangle)$

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b. V, {completive}: $\langle X, \sigma\rangle \rightarrow$

$[>$[vowel]…[cons], $t]_2(\langle X, \sigma\rangle)$

(67) Lithuanian reflexive affix *si*

a. *laikaũ-si*
maintain.1SG-REFL
'I get along'

b. *iš-si-laikaũ*
PREVERB-REFL-maintain.1SG
'I hold my stand'

c. *su-si-pa-žìnti*
PREVERB_1-REFL-PREVERB_2-know.INF
'to become acquainted with'