Complexification/simplification in gender emergence, loss and expansion

Francesca Di Garbo

University of Helsinki

Stockholm WS on "Grammatical Gender and Linguistic Complexity" Stockholm, 20.11.2015—21-11-2015



Aim

• To investigate the complexity of gender *dynamically*:



Aim

- To investigate the complexity of gender *dynamically*:
 - By exploring patterns of gender emergence, loss and expansion cross-linguistically
 - ② By investigating how these developments intersect with language ecology.





The puzzle



The puzzle

Gender is a cluster phenomenon [...], a minority feature worldwide whose tokens mostly cluster in adjacent or nearby languages (Nichols 2003: 300).



The puzzle

Gender is a cluster phenomenon [...], a minority feature worldwide whose tokens mostly cluster in adjacent or nearby languages (Nichols 2003: 300).

Gender [...] is a puzzle: most of its tokens are the result of inheritance, and even those need outside help to survive; it is easier to explain its loss than its rise (Nichols 2003: 303).





• Gender **inheritance** is facilitated within gender hotbeds.



- Gender inheritance is facilitated within gender hotbeds.
- @ Gender emergence is facilitated within gender hotbeds.



- **1** Gender **inheritance** is facilitated within gender hotbeds.
- Gender emergence is facilitated within gender hotbeds.
- Instances of gender loss (partial and/or total) are overwhelmingly more frequent than instances of gender emergence.



- **1** Gender **inheritance** is facilitated within gender hotbeds.
- **②** Gender **emergence** is facilitated within gender hotbeds.
- Instances of gender loss (partial and/or total) are overwhelmingly more frequent than instances of gender emergence.

Gender loss: simplification

Gender emergence: complexification



• Exploring complexification/simplification of gender *within* and *across* language families.



- Exploring complexification/simplification of gender *within* and *across* language families.
- Small scale intragenealogical typology



- Exploring complexification/simplification of gender *within* and *across* language families.
- Small scale intragenealogical typology
 - The smallest sample unit is not *one language* but a pair/set of closely related languages (cf. also Kusters 2003; Maitz & Németh 2014).



- Exploring complexification/simplification of gender *within* and *across* language families.
- Small scale intragenealogical typology
 - The smallest sample unit is not *one language* but a pair/set of closely related languages (cf. also Kusters 2003; Maitz & Németh 2014).
- Convenience sampling,



- Exploring complexification/simplification of gender *within* and *across* language families.
- Small scale intragenealogical typology
 - The smallest sample unit is not *one language* but a pair/set of closely related languages (cf. also Kusters 2003; Maitz & Németh 2014).
- Convenience sampling, the selected language pairs/sets instantiate:
 - Gender loss (total/partial)
 - Gender emergence



- Exploring complexification/simplification of gender within and across language families.
- Small scale intragenealogical typology
 - The smallest sample unit is not *one language* but a pair/set of closely related languages (cf. also Kusters 2003; Maitz & Németh 2014).
- Convenience sampling, the selected language pairs/sets instantiate:
 - Gender loss (total/partial)
 - Gender emergence
 - Gender expansion



- Exploring complexification/simplification of gender *within* and *across* language families.
- Small scale intragenealogical typology
 - The smallest sample unit is not *one language* but a pair/set of closely related languages (cf. also Kusters 2003; Maitz & Németh 2014).
- Convenience sampling, the selected language pairs/sets instantiate:
 - Gender loss (total/partial)
 - Gender emergence
 - Gender expansion

⇒ Data:

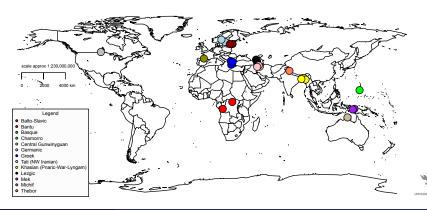
collected through a questionnaire as well as descriptive resources.



The sample

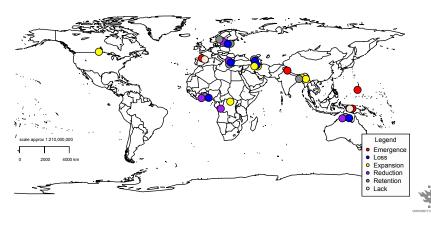
12 sets/pairs; 24 lngs.

The language sample



The evolutionary dynamics of gender systems: overview

Emergence, loss, reduction, expansion, retention lack of gender



Gender loss



Phenomenon

Languages

Innovations in the gender agreement system involve/start from agreement targets far away from nouns (e.g., personal pronouns, verbs).



Phenomenon	Languages
Innovations in the gender agreement system involve/start from agreement targets far away from nouns (e.g., personal pronouns, verbs).	Cappadocian Greek, Gunwinggu Kinshasa Lingala, Pharasiot Greek, Pontic Greek, Tamian Latvian



Phenomenon	Languages
Innovations in the gender agreement system involve/start from agreement targets far away from nouns	Cappadocian Greek, Gunwinggu Kinshasa Lingala, Pharasiot Greek, Pontic Greek, Tamian Latvian

Gender marking on nouns or NP-internal agreement targets is more conservative.



Phenomenon	Languages
Innovations in the gender agreement system involve/start from agreement targets far away from nouns (e.g., personal pronouns, verbs).	Cappadocian Greek, Gunwinggu Kinshasa Lingala, Pharasiot Greek, Pontic Greek, Tamian Latvian
Gender marking on nouns or NP-internal agreement targets is more conservative.	Kinshasa Lingala, Gunwinggu, Pharasiot Greek, Pontic Greek, Tamian Latvian



Phenomenon	Languages
Innovations in the gender agreement system involve/start from agreement targets far away from nouns (e.g., personal pronouns, verbs).	Cappadocian Greek, Gunwinggu Kinshasa Lingala, Pharasiot Greek, Pontic Greek, Tamian Latvian
Gender marking on nouns or NP-internal agreement targets is more conservative.	Kinshasa Lingala, Gunwinggu, Pharasiot Greek, Pontic Greek, Tamian Latvian

The most innovative agreement targets index new types of gender-like distinctions, often based on animacy.



Phenomenon	Languages
Innovations in the gender agreement system involve/start from agreement targets far away from nouns (e.g., personal pronouns, verbs).	Cappadocian Greek, Gunwinggu Kinshasa Lingala, Pharasiot Greek, Pontic Greek, Tamian Latvian
Gender marking on nouns or NP-internal agreement targets is more conservative.	Kinshasa Lingala, Gunwinggu, Pharasiot Greek, Pontic Greek, Tamian Latvian
The most innovative agreement targets index new types of gender-like distinctions, often based on animacy.	Kinshasa Lingala, Pharasiot Greek, Pontic Greek, Tamian Latvian



Phenomenon	Languages
Innovations in the gender agreement system involve/start from agreement targets far away from nouns (e.g., personal pronouns, verbs).	Cappadocian Greek, Gunwinggu Kinshasa Lingala, Pharasiot Greek, Pontic Greek, Tamian Latvian
Gender marking on nouns or NP-internal agreement targets is more conservative.	Kinshasa Lingala, Gunwinggu, Pharasiot Greek, Pontic Greek, Tamian Latvian
The most innovative agreement targets index new types of gender-like distinctions, often based on animacy.	Kinshasa Lingala, Pharasiot Greek, Pontic Greek, Tamian Latvian

Other



Phenomenon	Languages
Innovations in the gender agreement system involve/start from agreement targets far away from nouns (e.g., personal pronouns, verbs).	Cappadocian Greek, Gunwinggu Kinshasa Lingala, Pharasiot Greek, Pontic Greek, Tamian Latvian
Gender marking on nouns or NP-internal agreement targets is more conservative.	Kinshasa Lingala, Gunwinggu, Pharasiot Greek, Pontic Greek, Tamian Latvian
The most innovative agreement targets index new types of gender-like distinctions, often based on animacy.	Kinshasa Lingala, Pharasiot Greek, Pontic Greek, Tamian Latvian
Other	Kelasi, Standard Swedish, Udi



The Asia Minor dialects of Greek (Greek Greece; Karatsareas 2014)



The Asia Minor dialects of Greek (Greek Greece; Karatsareas 2014)

(1) Argyroúpolis Pontic

i pórta (...) móno ímoson DEF.F.SG door.F.SG (...) only half.N.SG óran estéknen anixtón hour.F.SG stay.PST.3SG open.N.SG

'The door would stay open for only half an hour'.

(2) Standard Greek

i pórta móno misí óra DEF.F.SG door.F.SG only half.F.SG hour.F émene anixtí stay.PST.3SG open.F.SG

'The door stayed open for only half an hour.'



The Asia Minor dialects of Greek (Greek Greece; Karatsareas 2014)

RESHUFFLING OF GENDER AGREEMENT/ASSIGNMENT

CRITERIA RESTRICTED BY ANIMACY AND TYPE OF

TARGET



^{&#}x27;The door would stay open for only half an hour'.

^{&#}x27;The door stayed open for only half an hour.'

The Asia Minor dialects of Greek (Greek Greece; Karatsareas 2014)

RESHUFFLING OF GENDER AGREEMENT/ASSIGNMENT

CRITERIA RESTRICTED BY ANIMACY AND TYPE OF

TARGET

'The door would stay open for only half an hour'.

'The door stayed open for only half an hour.'

(3) Pharasiot

férinke ad3íno i bring.PST.3.SG DEM.DIST.N.SG DEF.F.SG néka xortáre woman.F.SG herb.PL (4) Standard Greek

ecíni i jinéka DEM.DIST.F.SG DEF.F.SG woman.F.SG

'that woman'



^{&#}x27;that woman used to bring herbs.'

The Asia Minor dialects of Greek (Greek Greece; Karatsareas 2014)

RESHUFFLING OF GENDER AGREEMENT/ASSIGNMENT

CRITERIA RESTRICTED BY ANIMACY AND TYPE OF

TARGET

'The door would stay open for only half an hour'.

'The door stayed open for only half an hour.'

(3) Pharasiot

(4) Standard Greek

féri bri RESHUFFLING OF GENDER AGREEMENT/ASSIGNMENT

nél CRITERIA RESTRICTED BY TYPE OF TARGET

'that woman used to bring herbs.'



The Asia Minor dialects of Greek (Greek Greece; Karatsareas 2014)

(1) Arg RESHUFFLING OF GENDER AGREEMENT/ASSIGNMENT i CRITERIA RESTRICTED BY ANIMACY AND TYPE OF DEF óra TARGET hoi

'The door would stay open for only half an hour'.

'The door stayed open for only half an hour.'

(3) Pharasiot (4) Standard Greek

RESHUFFLING OF GENDER AGREEMENT/ASSIGNMENT bri CRITERIA RESTRICTED BY TYPE OF TARGET nél worm

'that woman used to bring herbs.'

spitcú

(5) Axó Cappadocian

> ndix(u)s DEF.SG.GEN house.SG.GN DEF.PL wall.PL

(6) Standard Greek

> xtixméni ine DEF.M.Pl. wall.M.Pl. be.PRS.3Pl. built.M.P.

xtizména

'the walls are built'

tíci

built.pl

The Asia Minor dialects of Greek (Greek Greece; Karatsareas 2014)



'The door would stay open for only half an hour'.

'The door stayed open for only half an hour.'

(3) Pharasiot

(4) Standard Greek

féri RESHUFFLING OF GENDER AGREEMENT/ASSIGNMENT néi CRITERIA RESTRICTED BY TYPE OF TARGET

'that woman used to bring herbs.'

(5) Axó Cappadocian

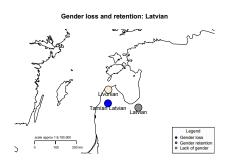
(6) Standard Greek

NEUTER AGREEMENT GENERALIZED TO ALL NOUNS, IRRESPECTIVE OF ANIMACY AND TYPE OF TARGET: COMPLETE LOSS OF GENDER

DEF

xti bui

Tamian Latvian (Balto-Slavic, Latvia; Koptjevskaja-Tamm & Wälchli 2001)





Tamian Latvian (Balto-Slavic, Latvia; Koptjevskaja-Tamm & Wälchli 2001)



Stage 1: Loss of agreeement with personal and demonstrative pronouns

Stage 2 Loss of agreement with predicative adjectives and predicative participles

Stage 3: Loss of agreement with attributive adjectives

Stage 4: Loss of gender-based nominal inflectional class.



Tamian Latvian (Balto-Slavic, Latvia; Koptjevskaja-Tamm & Wälchli 2001)



Stage 1: Loss of agreeement with personal and demonstrative pronouns

Stage 2 Loss of agreement with predicative adjectives and predicative participles

Stage 3: Loss of agreement with attributive adjectives

Stage 4: Loss of gender-based nominal inflectional class.

- A diachonic and synchronic cline.
- Pronouns develop a gender-like distinction of their own, based on animacy.



Patterns of gender emergence attested in the sample

Type of gender emergence	Languages
Contact-induced	Chamoro (Chamorro),
	Lekeitio Basque (Basque),
	Shumcho (Tibeto-Burman)
Language-internal development	Nalca (Mek)



Patterns of gender emergence attested in the sample

Type of gender emergence	Languages
Contact-induced	Chamoro (Chamorro),
	Lekeitio Basque (Basque),
	Shumcho (Tibeto-Burman)
Language-internal development	Nalca (Mek)

Main characteristics

- Minimal and non-systematic gender agreement: Chamorro, Lekeitio Basque, Nalca, Shumcho
- Adnominal modifiers as gender agreement targets: Chamorro, Lekeitio Basque, Shumcho
- NP markers as agreement targets: Nalca
- Marginal gender agreement in the verbal domain: Lekeitio Basque.



Contact-induced gender emergence: Chamorro

(Austronesian, Northern Marian Islands; Stolz 2012)



Contact-induced gender emergence: Chamorro

(Austronesian, Northern Marian Islands; Stolz 2012)

 Sex-based gender distinctions on adnominal modifiers as a result of borrowing of nouns and adjectives from Spanish.



Contact-induced gender emergence: Chamorro

(Austronesian, Northern Marian Islands; Stolz 2012)

- Sex-based gender distinctions on adnominal modifiers as a result of borrowing of nouns and adjectives from Spanish.
- Feminine vs. Non-Feminine type of opposition:
 - Modifiers in -a = the NP-referent is a female entity
 - Modifiers in -o/-u = the NP-referent is a male or an inanimate entity.



Chamorro

(Austronesian, Northern Marian Islands; Stolz 2012)

(7) Chamorro Feminine Gender (Stolz 2012: 123)

Ma-nobena-na-ye i **mi-milagros-a** na **Bithen**. PASS-novena-RED-REF DEF abound-miraculous-F LINK Virgin

'A novena is being conducted for the abundantly miraculous Virgin.'



Chamorro

(Austronesian, Northern Marian Islands; Stolz 2012)

(7) Chamorro Feminine Gender (Stolz 2012: 123)

Ma-nobena-na-ye i **mi-milagros-a** na **Bithen**. PASS-novena-RED-REF DEF abound-miraculous-F LINK Virgin

'A novena is being conducted for the abundantly miraculous Virgin.'

(8) Chamorro Non-Feminine Gender (Stolz 2012: 125)

desde antitites na tiempo esta gof **bunit-u** na **siuda** i since RED:before LINK time already very nice-NF LINK town DEF ya Hagåtîna.

TN Hagåtna

'A very long time ago, Hagåtna was a very pretty town already.'





- Nalca is a gender outlier: none of the other Mek languages has gender.
- 5 genders
- Nearly all genders are inquorate



- Nalca is a gender outlier: none of the other Mek languages has gender.
- 5 genders
- Nearly all genders are inquorate
- Strong connection between gender marking, proper names and nominalizations.



- Nalca is a gender outlier: none of the other Mek languages has gender.
- 5 genders
- Nearly all genders are inquorate
- Strong connection between gender marking, proper names and nominalizations.
- Gender agreement:
 - Agreement target: NP markers that cumulate the expression of gender, case and deixis
 - Gender agreement sensitive to syntactic properties of NPs (switching on and off of gender)



The emergence of gender in Nalca

(Svärd 2015; Wälchli & Svärd in preparation)



The emergence of gender in Nalca

(Svärd 2015; Wälchli & Svärd in preparation)

- Young gender system
- The Nalca gender markers have cognates in the other Mek languages.



The emergence of gender in Nalca

(Svärd 2015; Wälchli & Svärd in preparation)

- Young gender system
- The Nalca gender markers have cognates in the other Mek languages.
- Nalca has innovated functions not forms.





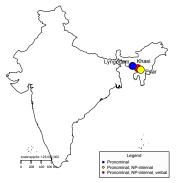
When gender systems expand

Type gender expansion	Languages
Increase in the number of agreement targets	Eshtehardi (Northwestern Iranian), Kafteij (Northwestern Iranian), Khasi (Pnaric), Pnar (Pnaric)
Two coexisting systems gender systems (depending on type of target)	Michif (Mixed language)



(Pnaric-War-Lyngngam)

Expansion of gender agreement targets: Khasian (Pnaric-War-Lyngngam)

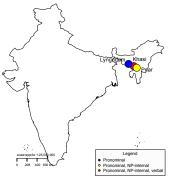




(Pnaric-War-Lyngngam)

The gender system (Daladier 2011; p.c.):

Expansion of gender agreement targets: Khasian (Pnaric-War-Lyngngam)



• Gender distinctions on 2nd and 3rd pronouns: an innovation within a few Austrasiatic Ings

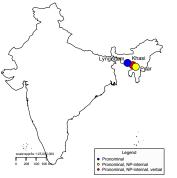
Khasi, Lyngngam, Pnar.



(Pnaric-War-Lyngngam)

The gender system (Daladier 2011; p.c.): Expansion of gender agreement targets: Khasian (Pnaric-War-Lyngngam)

Expansion of gender agreement targets: Knasian (Pharic-war-Lyngngam)

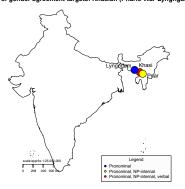


- Gender distinctions on 2nd and 3rd pronouns: an innovation within a few Austrasiatic Ings
 - Khasi, Lyngngam, Pnar.
- Deictic bases develop from gendered personal pronouns:
 - Khasi, Lyngngam, Pnar.



(Pnaric-War-Lyngngam)

The gender system (Daladier 2011; p.c.): Expansion of gender agreement targets: Khasian (Pnaric-War-Lyngngam)



Gender distinctions on 2nd and 3rd pronouns: an innovation within a few Austrasiatic Ings

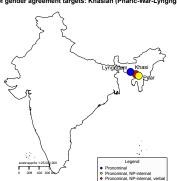
Khasi, Lyngngam, Pnar.

- Deictic bases develop from gendered personal pronouns:
 Khasi, Lyngngam, Pnar.
- Pronominal and deictic gender markers are used as pre-nominal gender clitics:
 Khasi, Pnar.



(Pnaric-War-Lyngngam)

The gender system (Daladier 2011; p.c.): Expansion of gender agreement targets: Khasian (Pnaric-War-Lyngngam)



Gender distinctions on 2nd and 3rd pronouns: an innovation within a few Austrasiatic Ings

Khasi, Lyngngam, Pnar.

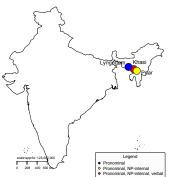
- Deictic bases develop from gendered personal pronouns:
 Khasi, Lyngngam, Pnar.
- Pronominal and deictic gender markers are used as pre-nominal gender clitics:
 Khasi, Pnar.
- Verbal bases index gender/number distinctions:
 Khasi.



(Pnaric-War-Lyngngam)

The gender system (Daladier 2011; p.c.):

Expansion of gender agreement targets: Khasian (Pnaric-War-Lyngngam)



 Gender distinctions on 2nd and 3rd pronouns: an innovation within a few Austrasiatic Ings

Khasi, Lyngngam, Pnar.

- Deictic bases develop from gendered personal pronouns:
 Khasi, Lyngngam, Pnar.
- Pronominal and deictic gender markers are used as pre-nominal gender clitics:

Khasi, Pnar.

 Verbal bases index gender/number distinctions:
 Khasi.

 The more grammaticalized the system (in terms of number of targets), the more bleached the semantics of gender assignment (Anne Daladier, p.c.).

Gender expansion in "Khasian"

(Pnaric-War-Lyngngam)

Gender development (Daladier 2011; p.c.): Expansion of gender agreement targets: Khasian (Pnaric-War-Lyngngam)



- Gender distinctions on 2nd and 3rd pronouns: an innovation within a few Austrasiatic Ings
- Khasi, Lyngngam, Pnar.
- Deictic bases develop from gendered personal pronouns:
- Gender expansion occurs in the demographically stronger varieties (Pnar, Khasi).



usea as pre-nominai genaer ciitics:

Khasi, Pnar.

- Verbal bases index gender/number distinctions:
 Khasi.
- The more grammaticalized the system (in terms of number of targets), the more bleached the semantics of gender assignment (Anne Daladier, p.c.).

ire



(9) Michif (Canada, USA; Bakker 1997: 87)

la žyma: ki:aja:w-e:w \tilde{e} pči pul \tilde{e} DAFS mare PST-have-TA. $3 \rightarrow 3^{I}$ IAMS little foal 'The mare had a foal.'



(9) Michif (Canada, USA; Bakker 1997: 87)

la žyma: ki:aja:w-e:w \tilde{a} pči pul \tilde{a} DAFS mare PST-have-TA. $3 \rightarrow 3^{I}$ IAMS little foal 'The mare had a foal.'

 Noun-phrase gender (Maculine vs. Feminine, based on French) and verb-phrase gender (Animate vs. Inanimate, based on Cree).



(9) Michif (Canada, USA; Bakker 1997: 87)

la žyma: ki:aja:w-e:w \tilde{a} pči pul \tilde{a} DAFS mare PST-have-TA. $3 \rightarrow 3^{I}$ IAMS little foal 'The mare had a foal.'

- The mare had a loar.
- Noun-phrase gender (Maculine vs. Feminine, based on French) and verb-phrase gender (Animate vs. Inanimate, based on Cree).
- The emergence of this *unique* type of expanded gender system can be understood only within the *unique* contact dynamics that characterize the origin of Michif as a mixed language.

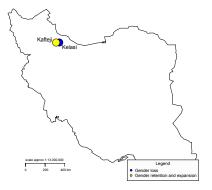


Gender loss and expansion within 12 km!

Kafteji and Kelasi

(North Western Iranian, Iran; Stilo to appear; p.c.)

Gender loss, retention, expansion: Tati (NW Iranian)

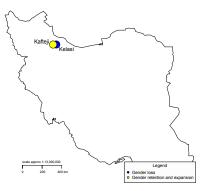




Kafteji and Kelasi

(North Western Iranian, Iran; Stilo to appear; p.c.)

Gender loss, retention, expansion: Tati (NW Iranian)



(10) Kafteji Feminine Gender

ém-æ æméd-ə dét-æ this-fd P.N-mo daughter-fd n^e-áya. NG.BE-3SF

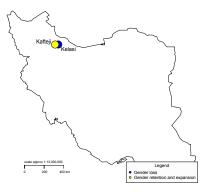
'This (or 'she') is not Ahmahd's daughter.'



Kafteji and Kelasi

(North Western Iranian, Iran; Stilo to appear; p.c.)

Gender loss, retention, expansion: Tati (NW Iranian)



(10) Kafteji Feminine Gender

ém-æ æméd-ə dét-æ this-fd P.N-mo daughter-fd n^e-áya. NG.BE-38F

'This (or 'she') is not Ahmahd's daughter.'

(11) Kelasi

ém æméd-e dét- \emptyset ní-æ. this P.N-so daughter-sd ng.be-3s

'This (or 'she') is not Ahmahd's daughter.'



Kafteji and Kelasi

(North Western Iranian, Iran; Stilo to appear)



Grammatical gender in the area

- A robust feature within Tati. But: \sim 40% Tati Ings lost gender.
- Great deal of intragenealogical variation.

Language ecology

- Complete mutual intelligibility.
- Most Kaftejis and Kelasis are quadrilingual. Most men also speak Azerbaijani and (possibly) Talyshi.
- All contact languages are genderless.
- Gender retention as a linguistic feature for self-distinction?
 Possible but difficult to prove.



Figure 1: Gender isoglosses within Tati (Northwestern Iranian)

Kafteji and Kelasi

(North Western Iranian, Iran; Stilo to appear)



Figure 1: Gender isoglosses within Tati (Northwestern Iranian)

Grammatical gender in the area

- A robust feature within Tati. But: $\sim 40\%$ Tati Ings lost gender.
- Great deal of intragenealogical variation.

Language ecology

- Complete mutual intelligibility.
- Most Kaftejis and Kelasis are quadrilingual. Most men also speak Azerbaijani and (possibly) Talyshi.
- All contact languages are genderless.
- Gender retention as a linguistic feature for self-distinction?
 Possible but difficult to prove.
- Expansion and loss as language-internal developments.



Loss/emergence/expansion of gender and language

ecology



Loss of gender



Type of change Conspiring factors (internal and external)

Loss of gender

(1) Language-internal developments (mainly morphophonological)



Type of change

Conspiring factors (internal and external)

Loss of gender

- (1) Language-internal developments (mainly morphophonological)
- (2) Isolation from gendered languages \sim prolonged contact/extensive bilingualism with genderless languages



Type of change	Conspiring factors (internal and external)
Loss of gender	 (1) Language-internal developments (mainly morphophonological) (2) Isolation from gendered languages ~ prolonged contact/extensive bilingualism with genderless languages (3) Increased number of L2 speakers at some point in the history of the speech community



Type of change	Conspiring factors (internal and external)
Loss of gender	(1) Language-internal developments (mainly morphophonological) (2) Isolation from gendered languages ~ prolonged contact/extensive
	bilingualism with genderless languages
	(3) Increased number of L2 speakers at some point
	in the history of the speech community

Emergence of gender



Type of change	Conspiring factors (internal and external)
Loss of gender	(1) Language-internal developments (mainly morphophonological)
	(2) Isolation from gendered languages ~ prolonged contact/extensive bilingualism with genderless languages
	(3) Increased number of L2 speakers at some point in the history of the speech community
Emergence of gender	(1) Contact-induced emergence of gender as the result of extensive borrowing

in the nominal domain



Type of change	Conspiring factors (internal and external)
Loss of gender	 (1) Language-internal developments (mainly morphophonological) (2) Isolation from gendered languages ~ prolonged contact/extensive bilingualism with genderless languages (3) Increased number of L2 speakers at some point in the history of the speech community
Emergence of gender	 (1) Contact-induced emergence of gender as the result of extensive borrowing in the nominal domain (2) Language-internal emergence of gender and system emergence (paradigmaticalization).

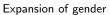


Type of change	Conspiring factors (internal and external)
Loss of gondon	(1) Language internal developments
Loss of gender	(1) Language-internal developments (mainly morphophonological)
	(2) Isolation from gendered languages \sim
	prolonged contact/extensive bilingualism with genderless languages
	(3) Increased number of L2 speakers at some point
	in the history of the speech community
Emergence of gender	(1) Contact-induced emergence of gender as the result of extensive borrowing
	in the nominal domain
	(2) Language-internal emergence of gender and system emergence (paradigmaticalization).

Expansion of gender



Type of change	Conspiring factors (internal and external)
Loss of gender	 (1) Language-internal developments (mainly morphophonological) (2) Isolation from gendered languages ~ prolonged contact/extensive bilingualism with genderless languages
	(3) Increased number of L2 speakers at some point in the history of the speech community
Emergence of gender	 (1) Contact-induced emergence of gender as the result of extensive borrowing in the nominal domain (2) Language-internal emergence of gender and system emergence (paradigmaticalization).



(1) Language-internal developments are relatively easy to trace.



Type of change	Conspiring factors (internal and external)
Loss of gender	(1) Language-internal developments (mainly morphophonological)
	(2) Isolation from gendered languages \sim
	prolonged contact/extensive
	bilingualism with genderless languages
	(3) Increased number of L2 speakers at some point
	in the history of the speech community
Emergence of gender	(1) Contact-induced emergence of gender as the result of extensive borrowing in the nominal domain
	(2) Language-internal emergence of gender and system emergence (paradigmaticalization).
	(1) 1
Expansion of gender	(1) Language-internal developments are relatively easy to trace.
	(2) External factors are more difficult to nin down

(2) External factors are more difficult to pin down (except for Michif).



Type of change	Conspiring factors (internal and external)
Loss of gender	 (1) Language-internal developments (mainly morphophonological) (2) Isolation from gendered languages ~ prolonged contact/extensive bilingualism with genderless languages (3) Increased number of L2 speakers at some point
Emergence of gender	(1) Contact-induced emergence of gender as the result of extensive borrowing in the nominal domain (2) Language-internal emergence of gender and
Expansion of gender	 system emergence (paradigmaticalization). (1) Language-internal developments are relatively easy to trace. (2) External factors are more difficult to pin down

(except for Michif). More work needed.



Discussion

• Gender **inheritance** is facilitated within gender hotbeds.

@ Gender emergence is facilitated within gender hotbeds.



• Gender inheritance is facilitated within gender hotbeds. True!

@ Gender emergence is facilitated within gender hotbeds.



- Gender inheritance is facilitated within gender hotbeds. True!
 Complete gender loss in the absence of gendered linguistic neighbors is not infrequent.
- @ Gender emergence is facilitated within gender hotbeds.



- Gender inheritance is facilitated within gender hotbeds. True! Complete gender loss in the absence of gendered linguistic neighbors is not infrequent.
- @ Gender emergence is facilitated within gender hotbeds. True!



- Gender inheritance is facilitated within gender hotbeds. True!
 Complete gender loss in the absence of gendered linguistic neighbors is not infrequent.
- ② Gender emergence is facilitated within gender hotbeds. True! This type of gender emergence appears to be contact-induced. Newly emerged gender systems (contact-induced and not) are always somewhat marginal (both in terms of crosslinguistic frequency and pervasiveness of the system).
- Instances of gender loss (partial and/or total) are overwhelmingly more frequent than instances of gender emergence.



- Gender inheritance is facilitated within gender hotbeds. True!
 Complete gender loss in the absence of gendered linguistic neighbors is not infrequent.
- ② Gender emergence is facilitated within gender hotbeds. True! This type of gender emergence appears to be contact-induced. Newly emerged gender systems (contact-induced and not) are always somewhat marginal (both in terms of crosslinguistic frequency and pervasiveness of the system).
- Instances of gender loss (partial and/or total) are overwhelmingly more frequent than instances of gender emergence. True!



- Gender inheritance is facilitated within gender hotbeds. True! Complete gender loss in the absence of gendered linguistic neighbors is not infrequent.
- ② Gender emergence is facilitated within gender hotbeds. True! This type of gender emergence appears to be contact-induced. Newly emerged gender systems (contact-induced and not) are always somewhat marginal (both in terms of crosslinguistic frequency and pervasiveness of the system).
- Instances of gender loss (partial and/or total) are overwhelmingly more frequent than instances of gender emergence. True! But another dimension needs to be taken into account: gender expansion



- Gender inheritance is facilitated within gender hotbeds. True! Complete gender loss in the absence of gendered linguistic neighbors is not infrequent.
- ② Gender emergence is facilitated within gender hotbeds. True! This type of gender emergence appears to be contact-induced. Newly emerged gender systems (contact-induced and not) are always somewhat marginal (both in terms of crosslinguistic frequency and pervasiveness of the system).
- Instances of gender loss (partial and/or total) are overwhelmingly more frequent than instances of gender emergence. True! But another dimension needs to be taken into account: gender expansion (more agreement targets, multiple principles of categorization, etc.).



Gender loss: simplification

Gender emergence: complexification



Gender loss: simplification

Gender emergence: complexification



Gender loss: simplification

Gender emergence: complexification

But

• Simplification in gender loss is not necessarily incremental



Gender loss: simplification

Gender emergence: complexification

- Simplification in gender loss is not necessarily incremental
 - → Violations of complexity principles (Audring in preparation; Di Garbo under review) in gender loss: hybrid controllers; mismatching inflections on agreement targets; new (often animacy-based) parameters of classification.



Gender loss: simplification

Gender emergence: complexification

- Simplification in gender loss is not necessarily incremental
 - → Violations of complexity principles (Audring in preparation; Di Garbo under review) in gender loss: hybrid controllers; mismatching inflections on agreement targets; new (often animacy-based) parameters of classification.
- Complexification in gender emergence



Gender loss: simplification

Gender emergence: complexification

- Simplification in gender loss is not necessarily incremental
 - → Violations of complexity principles (Audring in preparation; Di Garbo under review) in gender loss: hybrid controllers; mismatching inflections on agreement targets; new (often animacy-based) parameters of classification.
- Complexification in gender emergence
 - → Starting point (absence of gender) and arrival point (presence of gender).



Gender loss: simplification

Gender emergence: complexification

- Simplification in gender loss is not necessarily incremental
 - → Violations of complexity principles (Audring in preparation; Di Garbo under review) in gender loss: hybrid controllers; mismatching inflections on agreement targets; new (often animacy-based) parameters of classification.
- Complexification in gender emergence
 - → Starting point (absence of gender) and arrival point (presence of gender).
 - → Only a subset of lexical items within a given word class is sensitive to gender distinctions (Audring in preparation).



Gender loss: simplification

Gender emergence: complexification

- Simplification in gender loss is not necessarily incremental
 - → Violations of complexity principles (Audring in preparation; Di Garbo under review) in gender loss: hybrid controllers; mismatching inflections on agreement targets; new (often animacy-based) parameters of classification.
- Complexification in gender emergence
 - → Starting point (absence of gender) and arrival point (presence of gender).
 - → Only a subset of lexical items within a given word class is sensitive to gender distinctions (Audring in preparation).
 - → Gender marking can be optional (Audring in preparation).



Gender loss: simplification

Gender emergence: complexification

- Simplification in gender loss is not necessarily incremental
 - → Violations of complexity principles (Audring in preparation; Di Garbo under review) in gender loss: hybrid controllers; mismatching inflections on agreement targets; new (often animacy-based) parameters of classification.
- Complexification in gender emergence
 - → Starting point (absence of gender) and arrival point (presence of gender).
 - → Only a subset of lexical items within a given word class is sensitive to gender distinctions (Audring in preparation).
 - → Gender marking can be optional (Audring in preparation).





 The mapping between gender complexification/simplification and language ecology is not exactly deterministic.



 The mapping between gender complexification/simplification and language ecology is not exactly deterministic. Good news!



- The mapping between gender complexification/simplification and language ecology is not exactly deterministic. Good news!
- Developing typologies of patterns of complexification/simplification in individual domains of grammar (such as gender) is possible by combining intragenealogical and intergenealogical sampling.



- The mapping between gender complexification/simplification and language ecology is not exactly deterministic. Good news!
- Developing typologies of patterns of complexification/simplification in individual domains of grammar (such as gender) is possible by combining intragenealogical and intergenealogical sampling.
- Feeding language ecology into the analysis of these patterns of language change is possible,



- The mapping between gender complexification/simplification and language ecology is not exactly deterministic. Good news!
- Developing typologies of patterns of complexification/simplification in individual domains of grammar (such as gender) is possible by combining intragenealogical and intergenealogical sampling.
- Feeding language ecology into the analysis of these patterns of language change is possible, but it cannot be a one person's task.



- The mapping between gender complexification/simplification and language ecology is not exactly deterministic. Good news!
- Developing typologies of patterns of complexification/simplification in individual domains of grammar (such as gender) is possible by combining intragenealogical and intergenealogical sampling.
- Feeding language ecology into the analysis of these patterns of language change is possible, but it cannot be a one person's task.
 Team work and adequate resources are needed to engage language experts in cooperation!



- The mapping between gender complexification/simplification and language ecology is not exactly deterministic. Good news!
- Developing typologies of patterns of complexification/simplification in individual domains of grammar (such as gender) is possible by combining intragenealogical and intergenealogical sampling.
- Feeding language ecology into the analysis of these patterns of language change is possible, but it cannot be a one person's task.
 Team work and adequate resources are needed to engage language experts in cooperation!
- Call for discussion: tools and methods for large-scale crosslinguistic research on language ecology and its implications for grammatical typology and the study of linguistic complexity.

Thank you!

francesca.digarbo@helsinki.fi

Thanks are also due to:

All questionnaire respondents and language experts:

P. Bakker (Michif), Ö. Dahl (Elfdalian), A. Daladier (Khasian), M. Daniel (Archl), N. Evans (Central Gunwinyguan), C. Huber (Shumcho), A. Kalnaca (Latvian), P. Karatsareas (Asia Minor Greek dialects), M. Parkvall (Standard Swedish), I. Rodriguez (Basque), W. Schulze (Udi), D. Stilo (Tati), B. Wälchli and E. Svärd (Nalca).





References I

- Audring, Jenny. in preparation. Calibrating complexity: How complex is a gender system? .
- Bakker, Peter, 1997, A language of our own: The genesis of Michif, the mixed Cree-French language of the Canadian Métis, Oxford: Oxford University Press.
- Daladier, Anne. 2011. The group Pnaric-War-Lyngngam and Khasi as a branch of Pnaric. Journal of the Southeast Asian Linguistics Society 4(2), 169-206.
- Di Garbo, Francesca, under review, Exploring grammatical complexity crosslinguistically: The case of gender.
- Karatsareas, Petros. 2014. On the diachrony of gender in Asia Minor Greek: the development of semantic agreement in Pontic. Language Sciences 43, 77-101.
- Koptievskaia-Tamm, Maria & Bernhard Wälchli, 2001. The Circum-Baltic languages: An areal-typological approach. In Östen Dahl & Maria Koptjevskaja-Tamm (eds.), Circum-Baltic languages, vol. 2: Grammar and typology, 615-750. Amsterdam: John Benjamins.
- Kusters, Wouter, 2003, Linguistic complexity: The influence of social change on verbal inflections. Utrecht: LOT: University of Leiden dissertation.
- Maitz, Péter & Attila Németh. 2014. Language contact and morphosyntactic complexity: Evidence from German. Journal of Germanic Linguistics 26(1), 1-29.
- Nichols, Johanna, 2003. Diversity and stability in language. In Brian Joseph & Richard Janda (eds.), The handbook of historical linguistics, 283-310. Oxford: Blackwell.
- Stilo, Donald, to appear, Loss vs. expansion of gender in Tatic languages; Kafteii (Kabatei) and Kelasi,
- Stolz, Thomas, 2012, Survival in a niche, On gender-copy in Chamorro (and sundry languages). In Martine Vanhove, Thomas Stolz, , Hitomi Otsuka & Aina Urdtze (eds.), Morphologies in contact, 93-140. Munich: Akademie-Verlag.
- Svärd, Erik. 2015. The diachrony of Nalca gender. Manuscript.
- Wälchli, Bernhard & Eric Svärd, in preparation. The insidius emergence of a gender system in Nalca (Mek. Irian Java): inquorate noun classes, adjacency agreement, and switching on and off gender in syntax .
- Wälchli, Bernhard & Erik Svärd. 2015. Gender in Nalca and enlarging the canon of synchronic (and diachronic) canonical gender. properties. Paper presented at the Workshop on "Non-canonical gender systems" at the 48th Annual Meeting of the Societas Linguistica Europaea, Leiden, the Netherlands, 2-5 September, 2015.