

Sensitive Dependence on Initial Conditions, Illustrated through the Interplay between Sound Change and Analogy in the Progressive-to-Imperfective Cycle in Northern, Central, and Southern Kurdish

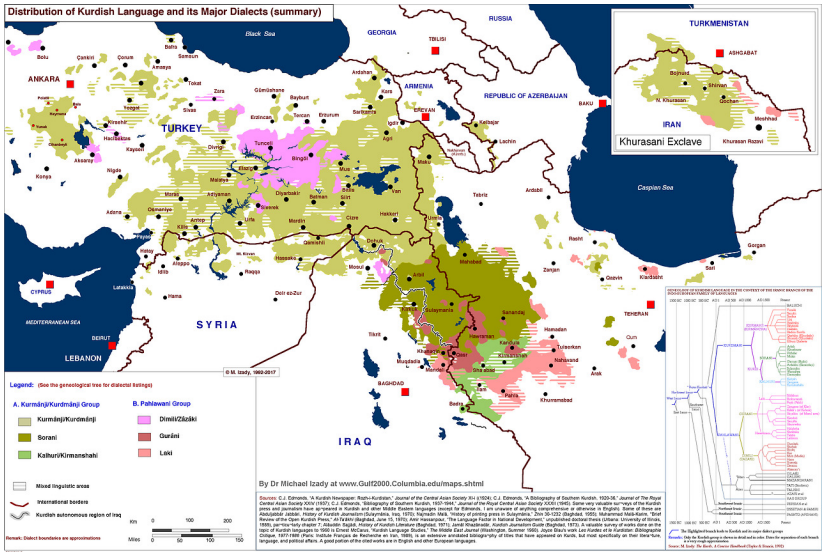
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Introduction



Sound Change and Morphological analogy

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 - I present the interplay of sound change and analogy in a hypothetical or idealized way
 - I propose actual borrowing introducing phonological irregularities
 - I show how minimal phonological differences yield disparate results

Idealized Changes

Hypothetical Changes I

ACCUSATIVE

PRS

ne-PRS

de=PCPL=da

ne=de=PCPL=da

ERGATIVE

PCPL

ne=PCPL

Aoristic drift



PRS

ne-PRS

de-PST-da

ne-de-PST-da

PST

ne-PST

Hypothetical Changes II

PRS

ne-PRS

de-PST-da

ne-de-PST-da

PST

ne-PST

Reanalysis



PRS

ne-PRS

de-IPFV.PST

ne-de-IPFV.PST

PST

ne-PST

Hypothetical Changes III

PRS

ne-PRS

de-IPFV.PST

ne-de-IPFV.PST

PST

ne-PST

extension



de-PRS

ne-de-PRS

de-IPFV.PST

ne-de-IPFV.PST

PST

ne-PST

Hypothetical Changes IV

de-PRS

ne-de-PRS

de-IPFV.PST

ne-de-IPFV.PST

PST

ne-PST

Zagros *d* ↓

de-PRS

ne-ye-PRS

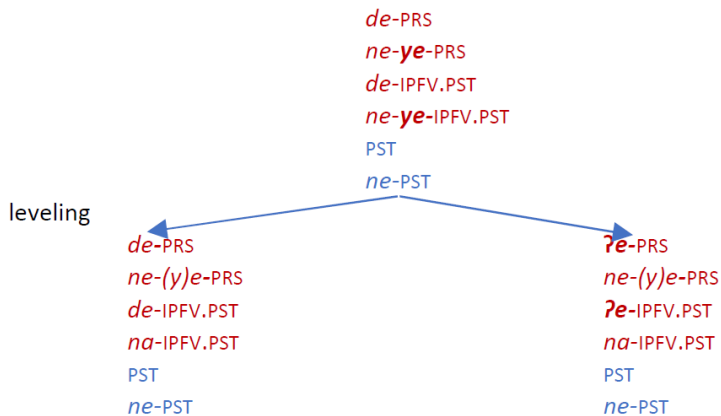
de-IPFV.PST

ne-ye-IPFV.PST

PST

ne-PST

Hypothetical Changes V



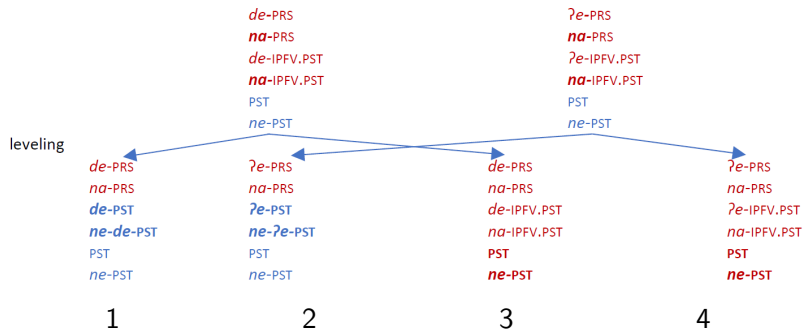
Hypothetical Changes VI

eye > a

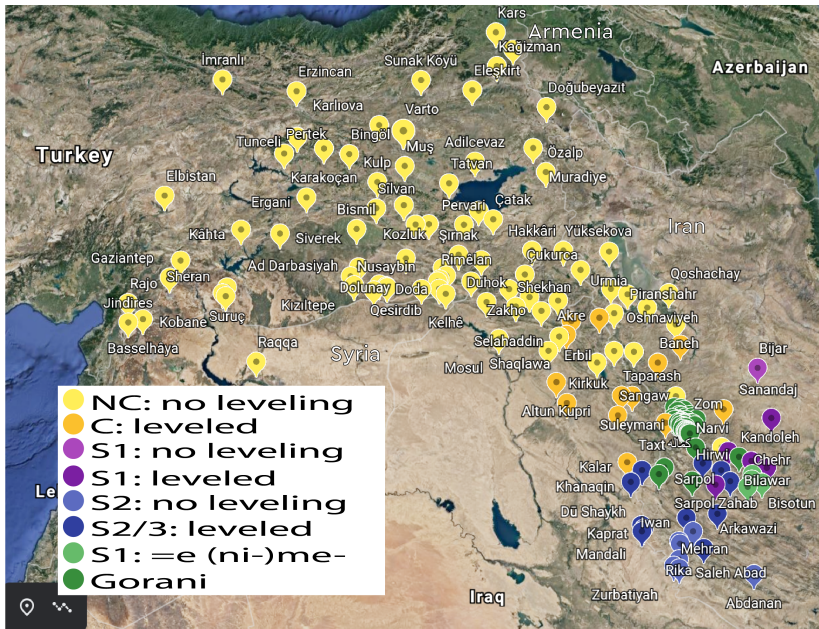
de-PRS
ne-(y)*e*-PRS
de-IPFV.PST
na-IPFV.PST
PST
ne-PST
↓
de-PRS
na-PRS
de-IPFV.PST
na-IPFV.PST
PST
ne-PST

ʔe-PRS
ne-(y)*e*-PRS
ʔe-IPFV.PST
na-IPFV.PST
PST
ne-PST
↓
ʔe-PRS
na-PRS
ʔe-IPFV.PST
na-IPFV.PST
PST
ne-PST

Hypothetical Changes VII



Kurdish varieties (114)



The source of noise

“As a widespread regional feature, termed the “Zagros d” (Windfuhr), postvocalic *d* is softened to glide-like *-i-*, or *-w-*, and contracts with adjacent high vowels: *a-da-m* ~ *a-ia-m* ‘I give’; *nadir* ~ *nair* ‘Nadir’ (masc. proper name); *bad* ~ *bai* ‘bad’; *xwa* ~ *xuwa* ‘God’ [\leftarrow **xuda*].”

(McCarus, 2009, 597)

- $d \rightarrow C_{[+CNT]} / C_{[+CNT]}_-$:
 - *di-t-tar* < *di-t-dar* ‘lover’
- $d \rightarrow d$ (elsewhere):
 - *dest* ‘hand’
 - *kird* ‘do.PST’

(Mackenzie, 1961, 3)

Zagros /d/ re-imagined

1. $d \rightarrow y, w, \emptyset / V_-$ (shared all Kurdish varieties)
2. $d \rightarrow \emptyset / C_{[+CNT]}_-$ (not shared by all Kurdish varieties)
3. Paradigm leveling: allomorphy due to Zagros /d/ occurring as a sandhi phenomenon across word or morpheme boundaries is eliminated. (irregular like all types of analogy)

Gorani/Laki Contact I

- Gorani and Laki varieties use the imperfective marker *m(e)*- not the Kurdish *(d)e*-.
- In these varieties, the presence of the imperfective marker conditions the use of the negation marker *ni*- instead of the typical *ne*-

	Paweyane	Hersîn	Mukrî
PRS	<i>mekeru</i>	<i>mekem</i>	<i>dekem</i>
NEG.PRS	<i>nimekeru</i>	<i>nimekem</i>	<i>nakem</i> < * <i>nede</i> kem
IPFV.PST	<i>kerênê</i>	<i>mekirdim</i>	(=m) <i>dekird</i>
NEG.IPFV.PST	<i>nekerênê</i>	<i>nimekirdim</i>	(=m) <i>nede</i> kird

Gorani/Laki Contact II

- Some varieties adopted the Gorani model

	Paweyane	Hypothetical	Mukrî
PRS	<i>mekeru</i>	*dekem	<i>dekem</i>
NEG.PRS	<i>nimekeru</i>	* nidekem	<i>nakem</i> < *nidekem
IPFV.PST	<i>kerênê</i>	*dekirnyam	(=m) <i>dekird</i>
NEG.IPFV.PST	<i>nekerênê</i>	*nedekirddam	(=m) <i>nedekird</i>

- Some varieties adopted the Laki model

	Hersîn	Hypothetical	Mukrî
PRS	<i>mekem</i>	*dekem	<i>dekem</i>
NEG.PRS	<i>nimekem</i>	* nidekem	<i>nakem</i> < *nedekem
IPFV.PST	<i>mekirdim</i>	*dekirddam	(=m) <i>dekird</i>
NEG.IPFV.PST	<i>nimekirdim</i>	* nidekirddam	(=m) <i>nedekird</i>

Proposed Changes I

ACCUSATIVE

PRS

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ERGATIVE

PCPL

ne=PCPL

Aoristic drift



PRS

ne-PRS

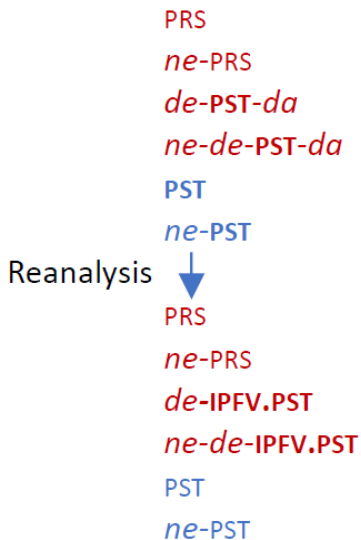
de-PST-da

ne-de-PST-da

PST

ne-PST

Proposed Changes II



Proposed Changes III

PRS

ne-PRS

de-IPFV.PST

ne-de-IPFV.PST

PST

ne-PST

extension



de-PRS

ne-de-PRS

de-IPFV.PST

ne-de-IPFV.PST

PST

ne-PST

Proposed Changes IV

borrowing:

Gorani

Laki

de-PRS

ni-de-PRS

de-IPFV.PST

ne-de-IPFV.PST

PST

ne-PST

Zagros d

de-PRS

nye-PRS

de-IPFV.PST

ne-ye-IPFV.PST

PST

ne-PST

de-PRS

ni-de-PRS

de-IPFV.PST

ni-de-IPFV.PST

PST

ne-PST

de-PRS

nye-PRS

de-IPFV.PST

nye-IPFV.PST

PST

ne-PST

de-PRS

ne-de-PRS

de-IPFV.PST

ni-de-IPFV.PST

PST

ne-PST

de-PRS

ne-ye-PRS

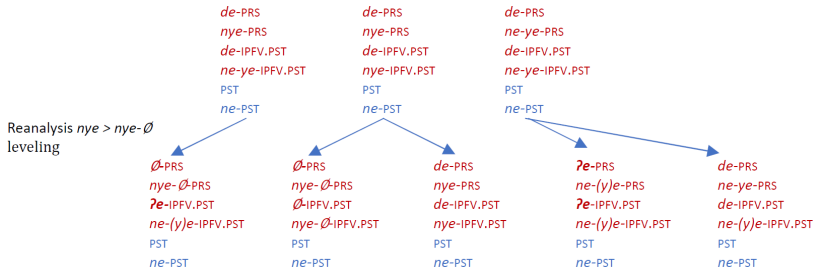
de-IPFV.PST

ne-ye-IPFV.PST

PST

ne-PST

Proposed Changes V



Proposed Changes VI

eye > a

~~Ø~~-PRS
nye-~~Ø~~-PRS
?e-IPFV.PST
ne-(y)e-IPFV.PST
PST
ne-PST

↓
~~Ø~~-PRS
nye-~~Ø~~-PRS
?e-IPFV.PST
na-IPFV.PST
PST
ne-PST

~~Ø~~-PRS
nye-~~Ø~~-PRS
~~Ø~~-IPFV.PST
nye-~~Ø~~-IPFV.PST
PST
ne-PST

↓
~~Ø~~-PRS
nye-~~Ø~~-PRS
~~Ø~~-IPFV.PST
nye-~~Ø~~-IPFV.PST
PST
ne-PST

de-PRS
nye-PRS
de-IPFV.PST
nye-IPFV.PST
PST
ne-PST

↓
de-PRS
nye-PRS
de-IPFV.PST
nye-IPFV.PST
PST
ne-PST

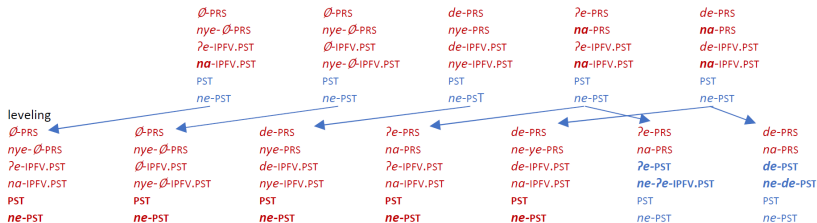
?e-PRS
ne-(y)e-PRS
?e-IPFV.PST
ne-(y)e-IPFV.PST
PST
ne-PST

↓
?e-PRS
na-PRS
?e-IPFV.PST
na-IPFV.PST
PST
ne-PST

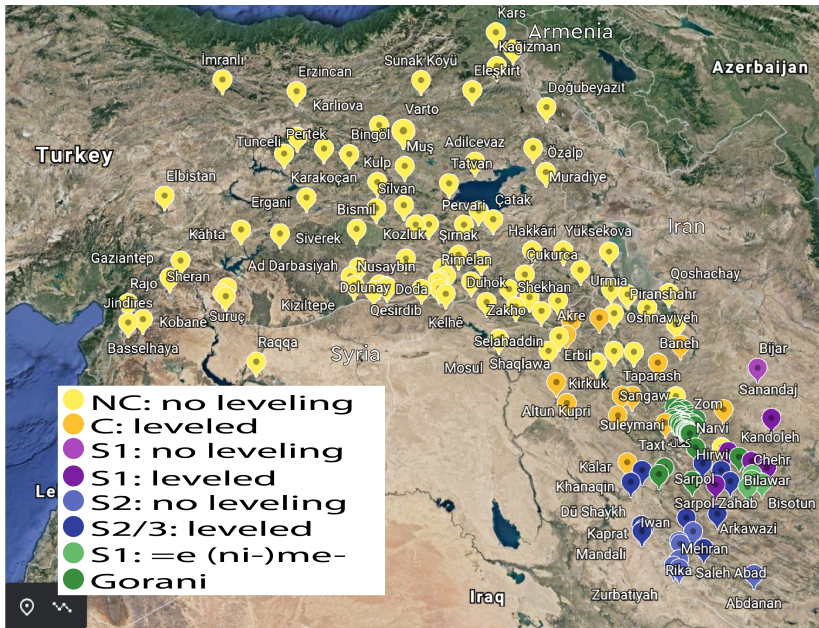
de-PRS
ne-ye-PRS
de-IPFV.PST
ne-(y)e-IPFV.PST
PST
ne-PST

↓
de-PRS
na-PRS
de-IPFV.PST
na-IPFV.PST
PST
ne-PST

Proposed Changes VII



Kurdish varieties (114)



- Vowel-final verbs: çû → çwa; barî → barya cf. kirdda → kird(ya)
- extension of -ya: three types *barya/kird*, *barî/kird*, *barya/kirdya*
- selection of negative allomorph for rebuilt past *ne-* vs. *na-*

<1>(1) Pretonic reduction: dekém → dikem

(2) Laki-Gorani *ni-*: nedidem → nidikem

(3) *Zd*: nidikem → nîkem :: nedikem → nêkem (< *neykem)

<2> retrogressive voice assimilation: d → t / _C_v

<3> sandhi extension: d(i)- → t(i)-

PRS.IPFV PRS.IPFV.NEG PST.IPFV PST.IPFV.NEG

NCd: Forms with the categorial loss of the imperfective stem

Mosul, İmranlı, Tatvan, Çukurca, Uludere, Muradiye, Pertek, kâhta, Nusaybin, Dolunay, Qamishly, Sabahiya, Duhok, Kobane, Zakho, Basselhâya, Akre, Chiay Syan, Kanyder, Bismil, Kulp, Karlıova, Kurtalan, Özalp, Kağizman, Kozluk, Siverek, Digor, Kızıltepe, Ergani, Doğubeyazıt, Karakoçan, Suruç, Şemdinli, Muş, Varto, Erzincan, Bingöl, Sunak Köyü, Eleşkirt, Doda, Ad Darbasiyah, Raqqa, Qesirdib, Xırbe Cıhwa:

PRS.IPFV PRS.IPFV.NEG PST.IPFV PST.IPFV.NEG

Types II

PRS.IPFV	PRS.IPFV.NEG	PST.IPFV	PST.IPFV.NEG
<i>di-</i>	<i>na-</i>	<i>di-</i>	<i>nedi-</i>
Jindires, Rajo (Syria):			
<i>di-</i>	<i>na-</i>	<i>di-</i>	<i>nedu-</i>
Elbistan:			
<i>di-</i>	<i>na-</i>	<i>di-</i>	<i>na-</i>
Bahçesaray, Sersink:			
<i>ti(/di)-</i>	<i>na-</i>	<i>(ti)di-</i>	<i>ne-ti(/di)-</i>
Beroj, Tepkê:			
<i>t-</i>	<i>na-</i>	<i>t-</i>	<i>na-</i>
Sewîdiyê:			
<i>t-</i>	<i>na-</i>	<i>ti-</i>	<i>nedi-</i>
Kelhê:			
<i>ti-</i>	<i>na-</i>	<i>di-</i>	<i>neti-</i>
PRS.IPFV	PRS.IPFV.NEG	PST.IPFV	PST.IPFV.NEG

Types III

PRS.IPFV PRS.IPFV.NEG PST.IPFV PST.IPFV.NEG

Erbil, Mahabad, Urmia, Oshnaviyeh, Marivan, Qoshachay, mīyāndoāb, qalat Dizah, Khalakan:

de- *na-* *de-* *nede-*

Naqadeh:

de- *na-* *de-* *ned(i)-*

Kamyaran:

de- *na-* *de-* *nad(i)-*

NC: Forms with the categorial loss of the imperfective stem

Sulaymaniyah, Kirkuk:

e- *na-* *e-* *nee-*

Khalifan, Baneh, Choman, Halabja, Sangaw:

e- *na-* *e-* *nae-*

S1d: Forms with neither the categorial loss of the imperfective stem nor the Gorani negative marker *ni*

PRS.IPFV PRS.IPFV.NEG PST.IPFV PST.IPFV.NEG

Types IV

PRS.IPFV	PRS.IPFV.NEG	PST.IPFV	PST.IPFV.NEG
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Bijâr

di-

nî-

di-...-ya

nî-...-ya

S1: Forms with neither the categorial loss of the imperfective stem nor the Gorani negative marker *ni*

Dinawar, Bilawâr, Sahana:

e-

na-

e-...-ya

na-...ya

Kolyâi, Qorwa (C.D. .), Bayray:

=y#e-

na-

=y#e-...-ya

na-...ya

S1: Forms with the Gorani negative and imperfective markers as a later development alongside the inherited imperfective marker *=e ni-me-PST.IPFV-*

PRS.IPFV	PRS.IPFV.NEG	PST.IPFV	PST.IPFV.NEG
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Types V

PRS.IPFV	PRS.IPFV.NEG	PST.IPFV	PST.IPFV.NEG
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Bisitun, Cıhr, Harsin, Pâyrawand:

=e me-	=e nime-	=e me-...-ya	=e nime-...ya
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S2: Forms with the Gorani negative marker *ni-* only in the present

Xânaqin:

∅-	nye-	e-	nee-
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S3d: Forms with the Gorani negative marker *ni-* regardless of tense

Malıkšâhi

(di)∅-	nye-	di-	nye-
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S3: Forms with the Gorani negative marker *ni-* regardless of tense

Myaxâs, Ilâm, Mıhrân, Rikâ (Sarna), Sâleh âbâd, Warmızyâr, Zur-bâtiya, Kordali:

∅-	nye-	di-	nye-
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Kałhor (Shahabad), Camcamât, Harasam, Kırmanšâh, Qasırişirin, Sanjabi, Xâtesa:

PRS.IPFV	PRS.IPFV.NEG	PST.IPFV	PST.IPFV.NEG
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Types VI

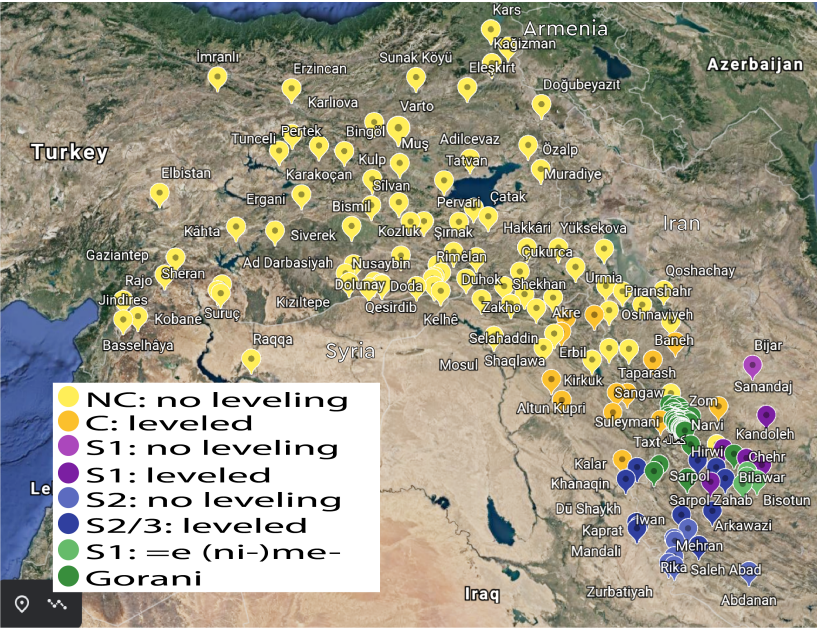
PRS.IPFV	PRS.IPFV.NEG	PST.IPFV	PST.IPFV.NEG
∅-	<i>nye-</i>	∅-...-ya	<i>nye-...-ya</i>

Arkwâzi, Dušayx, Iwân, Kaprât, Mandîli, Sarpol, šerwân:

∅-	<i>nye-</i>	= PST.PFV
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PRS.IPFV	PRS.IPFV.NEG	PST.IPFV	PST.IPFV.NEG
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Kurdish varieties (114)



Zor supastan ekem!

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