

Data

group	language	vowel alt.	/n/ alt.	distribution	dative suf.
A	Standard Turkish	✓	✗	1.sg & 2.sg	-a
A	Gaziantep/Ardahan/Cyprus Tur.	✓	[ŋ]	1.sg & 2.sg	-a
B	Turkmen	✓	[ŋ]	all sg.	-a
B	Ottoman Turkish (14-20 c.)	✓	[ŋ]	all sg.	-a
C	Uyghur	✓	[ŋ]	all sg.	-ya
C	Chaghatay (14-19 c.)	✓	[ŋ]	all sg.	-ya
C	Orhon Turkic (9th c.)	✓	[ŋ]	all sg.	-ya
D	Kazakh	✓	[y]	all sg.	-ya/-yan
D	Kirgiz	✓	[y]	all sg.	-ya
D	Nogai	✓	[y]	all sg.	-ya
E	Azerbaijani	✗	✗	none	-a
E	Uzbek	✗	✗	none	-ya

Table 1: Typology of Dative Pronoun Alternation in the Turkic language family

	[-back]	[+back]
[+high]	{i, ü}	{ı, u}
[-high]	{e, ö}	{a, o}

Table 2: Vowel Features

Group A: Gaziantep Turkish

	NOM	ACC	GEN	DAT	INSTR/COM
1.SG	ben	ben-i	ben-im	baŋa	be-nim=le
2.SG	sen	sen-i	sen-iŋ	saŋa	se-niŋ=le
3.DIST.SG	ol	on-u	on-uŋ	on-a	o-nuŋ=la
3.PROX.SG	bu	bun-u	bun-uŋ	bun-a	bun-uŋ=la
1.PL	biz	biz-i	biz-im	biz-e	-
2.PL	siz	siz-i	siz-iŋ	siz-e	-
3.DIST.PL	on-lar	on-lar-ı	on-lar-ıŋ	on-lar-a	-

(Günşen, 2009)

Group B: Ottoman Turkish

	NOM	ACC	GEN	DAT
1.SG	ben	ben-i	ben-im	baŋa
2.SG	sen	sen-i	sen-iŋ	saŋa
3.DIST.SG	ol	an-ı	an-ıŋ	aŋa
3.PROX.SG	bu	bun-ı	bun-ıŋ	buŋa
1.PL	biz	biz-i	biz-im	biz-e
2.PL	siz-(ler)	siz-(ler)-i	siz-(ler)-iŋ	siz-(ler)-e
3.DIST.PL	an-lar	an-lar-ı	an-lar-ıŋ	an-lar-a

(Bugday, 1999; Kerslake, 2015)

Group C: Chaghatay

	NOM	ACC	GEN	DAT	INSTR/COM
1.SG	män	men-i	me-niŋ	maŋa	me-niŋ bilä(n)
2.SG	sän	sen-i	se-niŋ	saŋa	se-niŋ bilä(n)
3.DIST.SG	ol	a-nı	a-nıŋ	aŋa	a-nıŋ bilä(n)
3.PROX.SG	bu	mun-ı	mu-nıŋ	muŋa	mu-nıŋ bilä(n)
1.PL	biz	biz-ni	biz-niŋ	biz-ge	biz-niŋ bilä(n)
2.PL	siz-(lär)	siz-(lär)-ni	siz-(lär)-niŋ	siz-(lär)-ge	-
3.DIST.PL	a-lar	a-lar-nı	a-lar-nıŋ	a-lar-ya	-

(Bodrogligeti, 2001; Boeschoten and Vandamme, 2015; Thackston Jr., 1993)

Group D: Kazakh

	NOM	ACC	GEN	DAT	INSTR/COM
1.SG	men	me-ni	me-niŋ	maŋan	me-ni=men
2.SG	sen	se-ni	se-niŋ	saŋan	se-ni=men
3.DIST.SG	ol	o-nı	o-nıŋ	oŋan	o-nı=men
3.PROX.SG	bul	bun-ı	bu-nıŋ	buŋan	bu-nı=men
3.MED.SG	sol	son-ı	so-nıŋ	soŋan	so-nı=men
1.PL	biz	biz-di	biz-diŋ	biz-ge	biz=ben
2.PL	siz-der	siz-der-di	siz-der-diŋ	siz-der-ge	siz-der=men
3.DIST.PL	o-lar	o-lar-dı	o-lar-dıŋ	o-lar-ya	o-lar=men

(Kirchner, 2015; Krippes, 1997; Muhamedowa, 2015)

Overview

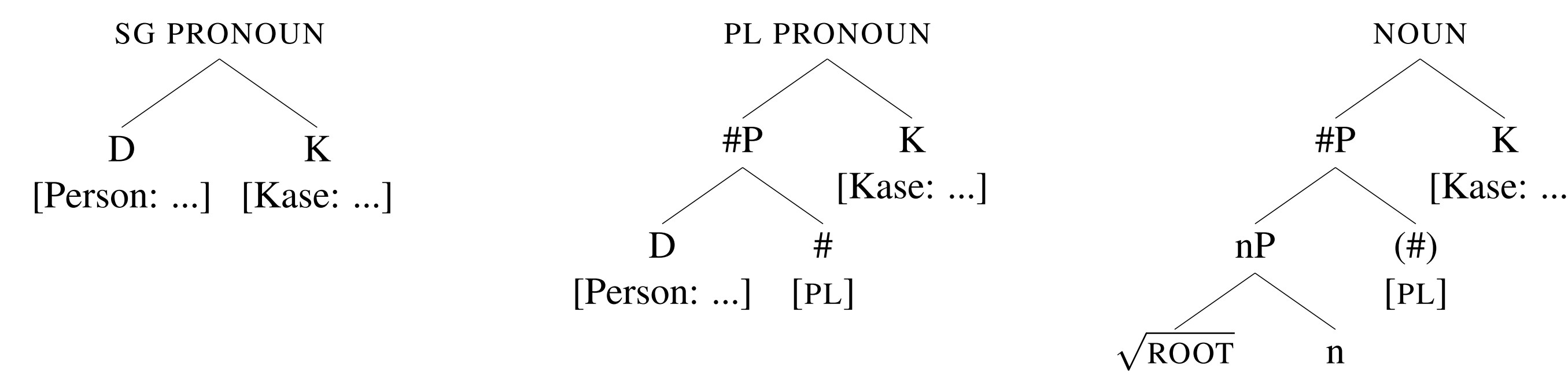
- Distribution:**
 - Group A: [SG,+participant] pronouns
 - Group B/C/D: [SG] pronouns
 - Group E: alternation lost
- Trigger:** dative suffix
- Stem Vowel Change:** V → [+back]
 - Group A&B: /n/ → [ŋ]
 - Group C: /ny/ → [ŋ]
 - Group D: /ny/ → [y]
 - Group E: alternation lost
- Stem Consonant Change:**
 - Group A&B: /n/ → [ŋ]
 - Group C: /ny/ → [ŋ]
 - Group D: /ny/ → [y]
 - Group E: alternation lost

Proposal

Not Suppletion

- Theoretical Issue:** *ABA pattern (Bobaljik, 2012)
 - (1) *Case Hierarchy* (Caha, 2009; Moskal, 2015) [NOM]C[ACC]C[GEN]C[DAT]C[INSTR]C[COM]
 - Prediction:** INSTR/COM trigger suppletion ⇒ *No such forms possible!*
 - (2) *Turkish*
 - a. 1=COM *{ban=la} ~ *{baŋ=la}
 - b. 1-GEN=COM *{ban-uum=la}
 - (3) *Kazakh*
 - a. 1=COM *{man=ben} ~ *{maŋ=ben}
 - b. 1-GEN=COM *{maŋ-duıŋ=ben}
- Principled Issue:** Phonological Correspondence = coincidence
- Suppletion = No Phonological Relation** ex. En. *go/went*, Rus. *xorošo/lučše* 'good/better'
- Vowel Alternation** is principled: [V] → [+back]
- Consonant Alternation** is principled:
 - Group A&B: /n/ → [ŋ]
 - Group C: /ny/ → [ŋ]
 - Group D: /ny/ → [y]

- Alternation = Morphosyntactic Category-Conditioned Phonology**
- Vowel Alternation = Reverse Vowel Harmony**
- Consonant Alternation in Group A/B = Floating [Dorsal] Feature from lost historical *g in dative**
- Consonant Alternation in Group C/D = /ny/ Cluster Simplification by /n/ Deletion**



Turkic Category Faithfulness Hierarchy

$$\left\{ \begin{array}{l} \text{FAITH}(nP) \\ \text{FAITH}(\#P) \end{array} \right\} \gg \text{FAITH}(\text{dative}) \gg \text{FAITH}(D) \gg \text{FAITH}(KP)$$

Vowel Alternation = Reverse Vowel Harmony

- (4) *Vowel Harmony Constraints* (Padgett, 2002; Walker, 1998)
 - a. **Color:** Feature class of [±round] and [±back]
 - b. **SPREAD(Color):** Penalize each Color feature [F] that is linked to one, but not all syllable nuclei in the phonological word.
- (5) *Vowel Harmony Constraint Ranking*

$$\text{IDENT}(nP, \text{back}) \gg \text{HARMEXCEPTIONS} \gg \text{SPREAD}(\text{Color}) \gg \text{IDENT}(\#P, \text{back}) \gg \text{IDENT}(\text{dative}, \text{back}) \gg \text{IDENT}(D, \text{back}) \gg \text{IDENT}(KP, \text{back})$$

- If nP / Pron_{PL}** dative harmonizes **IDENT(nP / #P, back) ≫ IDENT(dative, back)**
- If sg. pronoun** pronoun harmonizes **IDENT(dative, back) ≫ IDENT(D, back)**

Group A/B Consonant Alternation = Floating Remnant [Dorsal] Feature

- (6) *MULTASSOC(F): penalize more than one feature [F] associating with a single host. (adap. *U^U, Zimmermann 2017)
- (7) [DAT] ⇒ -/a/ < { [Dors:[+bk]] / [Dors:[+bk]] }
- (8) *Group B Constraint Ranking*

$$*MULTA(\text{Dors}) \gg \left\{ \begin{array}{l} \text{Id}(nP, \text{Dors}) \\ \text{Id}(\#P, \text{Dors}) \end{array} \right\} \gg \text{MAX}(\text{Dors})$$
- (9) *Group A Constraint Ranking*

$$\text{MAX}(\text{Dors}) \gg \text{Id}(D_{[-part]}, \text{Dors})$$
- If nP / Pron_{PL}** One [Dorsal] deletes can't stay on /a/ and can't change nP / #P
- If sg. pronoun:** One [Dorsal] floats to /n/, derives [ŋ] can't stay on /a/ but can change D

Group C/D Consonant Alternation = Cluster Simplification

- (10) [DAT] ⇒ -/y a/ < { [Dors:[+bk]] / [Dors:[+bk]] }
- (11) *Group C Constraint Ranking*

$$\left\{ \begin{array}{l} \text{MAX}(nP) \\ \text{MAX}(\#P) \\ \text{MAX}(\text{dative}) \\ \text{UNIF} \\ \text{MAX}(\text{Nas}) \end{array} \right\} \gg *NG \gg \left\{ \begin{array}{l} \text{MAX}(D) \\ \text{MAX}(KP) \\ \text{IDENT}(\text{Nas}) \end{array} \right\}$$
- If nP / Pron_{PL}** no /ny/ simplification
- If sg. pronoun:** /n/ deletes, [Nasal] floats to /y/
- (12) [DAT] ⇒ -/y a/ < { [Dors:[+bk]] / [Dors:[+bk]] }
- (13) *Group D Constraint Ranking*

$$\left\{ \begin{array}{l} \text{MAX}(nP) \\ \text{MAX}(\#P) \\ \text{MAX}(\text{dative}) \\ \text{UNIF} \\ \text{IDENT}(\text{Nas}) \end{array} \right\} \gg *NG \gg \left\{ \begin{array}{l} \text{MAX}(D) \\ \text{MAX}(KP) \\ \text{MAX}(\text{Nas}) \end{array} \right\}$$
- If nP / Pron_{PL}** no /ny/ simplification
- If sg. pronoun:** /n/ deletes, [Nasal] also deletes

Derivations

Vowel Alternation

(14) a. *Singular Pronoun + Dative ⇒ Vowel alternation*

...e(C)] _D -(C)a	Id(nP,bk)	SPR(Color)	Id(#P,bk)	Id(dat,bk)	Id(D,bk)	Id(KP,bk)
a. ...e(C)] _D -(C)a		*!*				
b. ...a(C)] _D -(C)a				*	*	*
c. ...e(C)] _D -(C)e				*!		*

b. *Singular Pronoun + Case Suffix ⇒ Vowel harmony*

...e(C)] _D -(C)a	Id(nP,bk)	SPR(Color)	Id(#P,bk)	Id(dat,bk)	Id(D,bk)	Id(KP,bk)
a. ...e(C)] _D -(C)a		*!*				
b. ...a(C)] _D -(C)a				*	*	*
c. ...e(C)] _D -(C)e				*		*

c. *Noun + Dative ⇒ Vowel harmony*

...e(C)] _{nP} -(C)a	Id(nP,bk)	SPR(Color)	Id(#P,bk)	Id(dat,bk)	Id(D,bk)	Id(KP,bk)
a. ...e(C)] _{nP} -(C)a		*!*				
b. ...a(C)] _{nP} -(C)a		*!		*	*	*
c. ...e(C)] _{nP} -(C)e				*		*

d. *Plural Pronoun + Dative ⇒ Vowel harmony*

...e(C)] _{#P} -(C)a	Id(nP,bk)	SPR(Color)	Id(#P,bk)	Id(dat,bk)	Id(D,bk)	Id(KP,bk)
a. ...e(C)] _{#P} -(C)a		*!*				
b. ...a(C)] _{#P} -(C)a				*	*	*
c. ...e(C)] _{#P} -(C)e				*		*

Consonant Alternation: Group A & B

(15) *Ottoman Turkish: Singular pronoun + dative ⇒ [Dorsal] associates with stem*

/ben-a ^[Dors,Dors] · 1-DAT [*] /	*MULTA(Dors)	MAX(Dors)	Id(D,Dors)
a. bana ^[Dors,Dors]	*!		
b. baŋ ^[Dors] a ^[Dors]			*
c. bana ^[Dors]		*!	

(16) *Ottoman Turkish: Plural pronoun + dative ⇒ [Dorsal] deletes*

/an-lar-a ^[Dors,Dors] / '3-PL-DAT [*] /	*MULTA(Dors)	Id(#P,Dors)	Id(D,Dors)	MAX(Dors)
a. anlara ^[Dors,Dors]	*!			
b. aŋ ^[Dors] lara ^[Dors]		*!	*	
c. anlara ^[Dors]				*

(17) *Ottoman Turkish: Noun + dative ⇒ [Dorsal] deletes*

/zaman-a ^[Dors,Dors] / 'time-DAT [*] /	*MULTA(Dors)	Id(nP,Dors)	MAX(Dors)
a. zaman ^[Dors,Dors]	*!		
b. zaman ^[Dors] a ^[Dors]		*!	
c. zaman ^[Dors]			*

Consonant Alternation: Group C & D

(18) *Uyghur: Singular pronoun + dative ⇒ /ny/ → [ŋ]*

/men ₁ -y ₂ a / '1.sg-DAT [*] /	UNIF	MAX(nas)	*NG	MAX(D)	MAX	IDENT(nas)
a. maŋ ₁ y ₂ a			*!			
b. maŋ ₁ ŋ ₂ a	*!			*	*	*
c. maŋ ₂ a		*!		*	*	*
d. maŋ ₂ a				*	*	*

(19) *Chaghatay: Noun + dative ⇒ No deletion* (Thackston Jr., 1993)

/qorŋan ₁ -y ₂ a / 'fortress-DAT [*] /	MAX(nP)	UNIF	MAX(nas)	*NG	MAX	IDENT(nas)
a. qorŋan ₁ y ₂ a				*		
b. qorŋan ₁ ŋ ₂ a			*!		*	*
c. qorŋay ₂ a		*!		*	*	*
d. qorŋan ₂ a		*!		*	*	*

Historical Account

- Alternation Origin:** from Proto-Turkic
- Faithfulness Hierarchy:** from Proto-Turkic
- Proto-Turkic dative suffix = *-ga/
- Group A: FAITH(D) splits into FAITH(D_[-part]) & FAITH(D_[+part])
- Group D: MAX(nasal) & IDENT(nasal) change places
- Group A&B: *-ga → -a, [Dorsal] feature survives
- Group E: independently lost alternation

References

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