

DM Analysis of A Paradigm Gap in Turkish

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What is this talk about?

-Asl desideratives cannot be inflected for POS.3PL for many speakers. This phenomenon will be modeled in the framework of Distributed Morphology (Halle & Marantz 1993).

- ▶ Introduction of -Asl desideratives
- ▶ The gap
- ▶ DM-theoretic analysis
- ▶ Discussion & Conclusion

Desideratives

- ▶ Turkish has a desiderative construction:

(1) [Ben-im kahve iç -esi -m] var.
1SG-GEN coffee drink -DESID -POS.1SG exist.cop
'I feel like drinking coffee.'

- ▶ Possible matrix predicates:

var 'exist', *yok* 'not.exist', *gel-* 'come', *git-* 'go away', *kaç-* 'run away', *tut-* 'hold'.

Agreement Paradigm of Desideratives

- ▶ The expectation is met for 1st and 2nd persons.

- (4) a. Biz-in kahve iç -esi -miz var.
We-GEN coffee drink -DESID -POS.1PL exist
'We feel like drinking coffee.'
- b. Sen-in kahve iç -esi -n var.
You(SG)-GEN coffee drink -DESID -POS.2SG exist
'You(sg) feel like drinking coffee.'
- c. Siz-in kahve iç -esi -niz var.
You(PL)-GEN coffee drink -DESID -POS.2PL exist
'You(pl) feel like drinking coffee.'

3PL Desideratives - The Gap

- ▶ Speakers do not converge on a well-formed output for 3PL desideratives in pro-drop environments, where 3PL agreement is obligatory (Göksel & Kerslake 2005).

- (6) a. ??(Çocuk-lar-ın) kahve iç -esi -leri var.
Kid-PL-GEN coffee drink -DESID -POS.3PL exist
'The kids feel like drinking coffee.'
- b. ??(Çocuk-lar-ın) kahve iç -e -leri var.
Kid-PL-GEN coffee drink -DESID -POS.3PL exist
'The kids feel like drinking coffee.'

3 Grammars

- ▶ There are 2 possible forms for realizing 3PL desideratives:

(i) V + AsI + IArl

(ii) V + A + IArl

- ▶ Some speakers accept (i) while some others accept (ii).
- ▶ There is yet another group of speakers who accept neither form as grammatical. For this group, there is no well-formed output for 3PL desideratives. Hence, the gap.

This gap is not lexically restricted contrary to the widespread observation about the gaps in other languages (Halle 1973, Boyé & Hofherr 2010, Löwenadler 2010, Sims 2015).

3 Grammars

- ▶ 3 groups of speakers with different grammars:
 - i. V + Asl + IArl
 - ii. V + A + IArl
 - iii. *_{DESID}.3_{PL} (GAP)

1. Why do speakers differ in their preferred 3_{PL} desiderative forms but not in other desideratives?
 - ▶ Due to the irregularity in 3_{SG} desideratives.
2. How can we model the grammars of these 3 different groups in the framework of Distributed Morphology (Halle & Marantz 1993)?
 - ▶ With different vocabulary items (allomorphs) for _{DESID} and/or 3_{SG}.

Why do speakers differ in their preferred 3PL desiderative forms but not in other desideratives?

- ▶ 3PL desideratives are virtually absent in the input as opposed to the other forms. Only 20 hits for V+AsI+IArI desideratives in the 3.3 billion trTenTen corpus.
- ▶ The relative frequency of 3PL desideratives is also unexpectedly low.

	SG	PL
1	59.2%	1.51%
2	3.06%	3.45%
3	32.7%	0.05%

Table: Averaged frequencies of the desiderative forms of *al-* 'buy', *git-* 'go', *gör-* 'see', *yap-* 'do'. Only **2** 3PL forms out of **3764** are attested.

Real-Life Wug Test

- ▶ The speaker needs to figure out the form of a 3PL desiderative on the fly based on the attested forms in the input (especially 1SG and 3SG due to high freq.).

<i>YAP</i> 'do'	SG	PL
1	yap-ası-m	yap-ası-mız
2	yap-ası-n	yap-ası-nız
3	yap-ası	?

- ▶ The desiderative suffix *-Ası* is intact and followed by the regular possessive agreement markers in 1 and 2 persons.
- ▶ 3SG desiderative is irregular, which might lead speakers to posit different forms for 3PL desideratives.

Decomposing the irregular DESID.3SG

- (7) Meryem-in kahve iç -esi var.
Meryem-GEN coffee drink -DESID.3SG exist
'Meryem feels like drinking coffee.'

Two possible decompositions for the DESID.3SG -Asl:

1. POS.3SG has a null allomorph and DESID is the regular -Asl.

- (8) Meryem-in kahve iç -esi -∅ var.
Meryem-GEN coffee drink -DESID -POS.3SG exist

2. DESID has an allomorph -A and POS.3SG is the regular -sl.

- (9) Meryem-in kahve iç -e -si var.
Meryem-GEN coffee drink -DESID -POS.3SG exist

Source of Speaker Variation

- ▶ Depending on the decomposition, the predicted form for 3PL desideratives differs.
- ▶ Some speakers decide DESID or 3SG has an allomorph only in 3SG desideratives. This group prefers **V+AsI+IArI**.
- ▶ Some others decide DESID has an allomorph with both 3 person forms. This group prefers **V+A+IArI**.
- ▶ Yet some others cannot resolve the ambiguity and decide on a particular decomposition. These speakers have a **gap** instead of well-formed 3PL desideratives!

2. How can we model the grammars of these different groups of speakers in the framework of Distributed Morphology (Halle & Marantz 1993)?

Basic Assumptions of Distributed Morphology

Late Insertion: Syntax manipulates abstract features that do not have a phonological shape.

Vocabulary Insertion: Morphemes (morpho-syntactic features under syntactic terminals) are given a phonological form at the PF-branch based on vocabulary items (VI), which are form-morpheme pairs stored in the Lexicon.

Subset Principle: A VI is inserted into a morpheme if it matches all or a subset of the features in the terminal. If multiple VIs are eligible for insertion into a morpheme, the most specific one is inserted (Halle 1997).

V+Asl+IArl Speakers

The most strict conditions of allomorphy will be adopted: Structural (Bobaljik 2012) or Linear Adjacency (Embick 2010) (cf. Moskal & Smith, 2015; Demirok 2021).

- ▶ At least two possible grammars can lead to this form:

(1) yap -asɪ -∅
do -DESID -3SG

(2) yap -a -sɪ
do -DESID -3SG

- ▶ The first one decomposes the complex -Asl suffix in 3SG desideratives into the regular -Asl suffix for DESID and a null allomorph for 3SG.
- ▶ The second one posits an allomorph -A for DESID in the environment of 3SG whereas 3SG has its regular form.

V+A+IArI Speakers

- ▶ At least one possible grammar can lead speakers to V+A+IArI for 3PL desideratives.
- ▶ DESID **has an allomorph in the environment of [3]**.
- ▶ The relevant VIs for this group:

1. DESID \longleftrightarrow AsI
2. 3SG \longleftrightarrow sI
3. PL \longleftrightarrow \emptyset
4. 3 \longleftrightarrow IArI / ___ [PL]
5. DESID \longleftrightarrow A / ___ [3]

- ▶ Vocabulary Insertion:

- ▶ $[\checkmark * \text{ DESID } * 3 * \text{ SG}] \rightarrow \checkmark + \text{A (5)} + \text{sI (2)}$
- ▶ $[\checkmark * \text{ DESID } * 3 * \text{ PL}] \rightarrow \checkmark + \text{A (5)} + \text{IArI (4)} + \emptyset (3)$

Speakers with a Gap

- ▶ The most difficult group to model due to the deterministic nature of Distributed Morphology.
- ▶ It can be modeled with the help of unresolved competition in Vocabulary Insertion.
- ▶ If the items are equally specific, then nobody wins for insertion.
- ▶ [3] has a null allomorph in the environment of DESID.
- ▶ Also, [3] has the allomorph -lArl in the environment of [PL].
- ▶ Everything else remains the same.

VIs for the Gap Grammar

1. DESID \longleftrightarrow Asl
2. 3SG \longleftrightarrow sl
3. PL \longleftrightarrow \emptyset
4. 3 \longleftrightarrow |Arl / ___ [PL]
5. 3 \longleftrightarrow \emptyset / [DESID] ___

► Vocabulary Insertion in 3SG:

► $[\sqrt{\quad} * \text{DESID} * 3 * \text{SG}] \rightarrow \sqrt{\quad} + \text{Asl (1)} + \text{sl (2)}$

► Unresolved competition in 3PL:

► $[\sqrt{\quad} * \text{DESID} * 3 * \text{PL}] \rightarrow \sqrt{\quad} + \text{Asl (1)} + \mathbf{(4) \text{ or } (5)?} + \emptyset (3)$

Summary

- ▶ It is most likely that if one ever tries to produce a 3_{PL} desiderative, it is a real-life wug test (Berko 1958).
- ▶ There are three different groups of speakers w.r.t. posited forms for 3_{PL} desideratives.
- ▶ V+AsI+IArI and V+A+IArI speakers diverge since it is not evident if the allomorphy of DESID is conditioned solely by [3].
- ▶ Speakers with no grammatical form for 3_{PL} desideratives cannot resolve the competition between VIs based on the Subset Principle (Halle 1997).
- ▶ All we need is different vocabulary items to model these different grammars in Distributed Morphology.

Discussion

- ▶ The unresolved competition is between $V+AsI+\emptyset$ and $V+AsI+IArI$. However, $V+AsI+\emptyset$ is not even an option when 3PL agreement is required.
- ▶ There should be an unresolved competition between $V+AsI+IArI$ and $V+A+IArI$. But how?
- ▶ Empirically, most speakers are hesitant to accept even their preferred form. Judgments are gradient. How can it be modeled in DM?
- ▶ Why do speakers choose the analytical paths they choose? Is it the frequencies of other forms in the paradigm that affect it?

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