Focus on demonstratives: Experiments in English & Turkish

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Anaphoric Demonstratives vs. Definites

Definites and demonstratives can both be used anaphorically[1;2;8;9;12]:

(1) I saw a dog. The/that dog jumped.

- But we observe that in "two NP" anaphoric contexts demonstratives are dispreferred to definite articles:

(2) I saw a dog and a cat. The/#That dog jumped.

- In contrast, Dayal and Jiang[4] (c.f.[6]) observe that change of situation (3-b) leads to demonstratives being preferred over definite bare nouns in Mandarin:

(3) Jiaoshi li zuo zhe yi ge nansheng yi ge nüsheng.
classroom inside sit PROG one CL boy one CL girl
'There is a boy and a girl sitting in the classroom.'

a. Nüsheng zuo zai nansheng pangbian.
girl sit DUR boy side
'The girl was sitting next to the boy.'

b. Wu zuotian yudao {#∅/na ge} nansheng.
I yesterday meet that CL boy
'I met the boy yesterday.'

Study Goal

How do anaphoric demonstratives differ from definite descriptions, in languages with and without articles?

- We experimentally manipulate **change of situation** and the number of **competing referents** in both:
  - ⋆ a language with definite determiners (English (4))
  - ⋆ a language without overt determiners (Turkish (5))

(Ask us about our ongoing work/new data on Bangla and Mandarin!)

Hypotheses

Context will affect acceptability such that:

1. Definite noun phrases will be acceptable across the board as long as uniquness of the NP is satisfied
2. Demonstratives will vary in acceptability depending on the structure of focus alternatives, notably:
   - whether **the NP contrasts with another NP** (*the boy* vs. *the girl*, focus on the NP)
   - whether **introducing a new situation** supports focus alternatives involving the same NP (*that boy* vs. another)

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Critical Manipulation

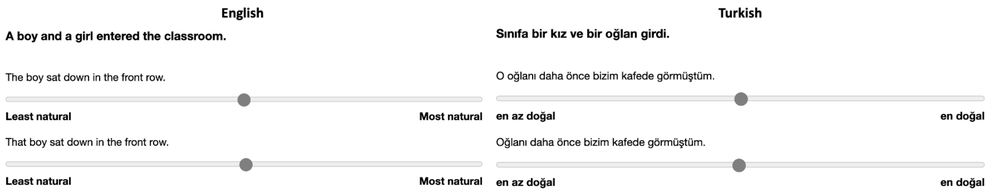
(4) {[$_{OneNP}$ A boy]/ [$_{TwoNP}$ A boy and a girl]} entered the classroom.
a. {The/That} boy sat down in the front row. **(Same Situation)**
b. I had noticed {the/that} boy at a coffee shop yesterday. **(New Situation)**

(5) Sınıf-a {[$_{OneNP}$ bir oğlan]/ [$_{TwoNP}$ bir kız ve bir oğlan]} gir-di.
class-DAT one boy one girl and one boy enter-PAST
'A boy/A boy and a girl entered the classroom.'
a. {∅/O} oğlan ön sıra-lar-dan biri-ne otur-du. **(Same situation)**
∅/that boy front seat-PL-ABL one.of-DAT sit-PAST
'The/That boy sat down in one of the front seats.'
b. {∅/O} oğlan-ı daha önce bizim kafe-de gör-müş-tü-m. **(New situation)**
∅/that boy-ACC before our cafe-LOC see-ANT-PAST-1SG
'I had seen the/that boy at our coffee shop before.'

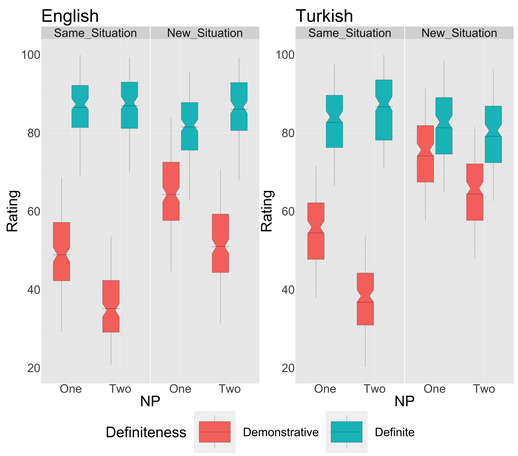
- New situations each introduced both a **new event participant** and **a temporal change**.

Methods

- Latin Square 2x2x2 design crossing NP (1 vs. 2) and situation (new vs. same) across 12 scenarios (balanced for animacy of target NPs)
- Total 55 English and 62 Turkish participants (both groups recruited via Prolific Academic platform)



Results



English		
parameter	*estimate*	*p-value*
Definites (main effect)	39.412	$p < 0.05$
Demonstratives		
2 NP	-15.069	$p < 0.05$
New Situation	15.392	$p < 0.05$
New Situation*2 NP	1.803	$p = 0.61$

Turkish		
parameter	*estimate*	*p-value*
Definites (main effect)	28.548	$p < 0.05$
Demonstratives		
2 NP	-17.913	$p < 0.05$
New Situation	19.723	$p < 0.05$
New Situation*2 NP	8.092	$p = 0.01$

Note: Intentionally contrasting DEF and DEM in our design likely caused demonstratives to be less acceptable overall, given overall acceptability of definites[7].

Analysis

We contrast definites[11] (cf.[5])

(6) $[\![\text{DEF}]\!] = \lambda s.\lambda y.\lambda P : \exists! x[P_s(x) \wedge x = y].\ \iota x[P_s(x) \wedge x = y]$

... with demonstratives which must satisfy its anti-uniqueness requirement in the maximal situation[4;10], and which we argue are also evaluated at that maximal situation:

(7) $[\![\text{DEM}]\!] = \lambda s.\lambda y.\lambda P : \mathit{Maximal}(s) \wedge\ \exists! x[P_s(x) \wedge x = y] \wedge |P_s| > 1.\ \iota x\ [P_s(x) \wedge x = y]$

Crucially, we contrast availability of focus placement for definites (anywhere but the index) vs. focus on the index for demonstratives.

(8) the boy/∅ oğlan (*no focus within DP, e.g. 1 NP cases*)
$[[\text{DEF } 1\ ] \text{ boy}]^o = \iota x\ [\mathit{boy}(x) \wedge x = g(1)]$

(9) the BOY (*as opposed to the GIRL, e.g. 2 NP cases*)
$[[\text{DEF } 1\ ] \text{ boy}_F]^o = \iota x\ [\mathit{boy}(x) \wedge x = g(1)]$
$[[\text{DEF } 1\ ] \text{ boy}_F]^f$
$= \{\iota x\ [\mathit{boy}(x) \wedge x = g(1)], \iota x\ [\mathit{girl}(x) \wedge x = g(2)]\}$

(10) THAT boy/O oğlan (*as opposed to another boy*)
$[[\text{DEM } 1_F\ ] \text{ boy}]^o = \iota x\ [\mathit{boy}(x) \wedge x = g(1)]$
$[[\text{DEM } 1_F\ ] \text{ boy}]^f$
$= \{\iota x\ [\mathit{boy}(x) \wedge x = g(1)], \iota x\ [\mathit{boy}(x) \wedge x = g(3)]\}$

- Demonstratives are degraded in **Two NP** cases since they bias the natural focus placement to be on the NP itself (*boy*, contrasted with *girl*), as opposed to the index.
- Demonstratives improve in **New Situation** cases since these are most compatible with considering a maximal situation involving other boys (e.g., g(3)) as focus alternatives.

Conclusions

- Evidence for clear information structural constraints on anaphoric **demonstratives** complementing those of **definites**, whether or not the definiteness is expressed with an article (English) or a bare noun (Turkish).
- Contrast in (3) may likely stem from competition with the indefinite reading of Mandarin bare nouns[3] introducing a new referent, which is unavailable in Turkish.

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