Demonstratives and alternatives

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Overview. It has been argued in the literature that demonstratives are subject to an anti-uniqueness constraint, which contrasts them with definites (Robinson 2005, Dayal & Jiang (henceforth D&J) 2022). Moreover, recent experimental works show that demonstratives also contrast with definites in certain aspects of their anaphoric behavior (Saha 2023, Saha *et al.* 2023). This raises the issue of whether there is a connection between anti-uniqueness and the distinctive anaphoric behavior of demonstratives. In this paper, I add additional complexity to the empirical landscape by illustrating that anti-uniqueness is not just exhibited by demonstratives but also by bare classifier definites (N-CLs) in Bangla (term due to Simpson 2005), which otherwise pattern with standard definites with respect to their anaphoric behavior (Saha 2023). I argue that an alternatives based proposal provides a unified account for the anti-uniqueness and the anaphoricity contrast, explaining the cross-linguistic variability across demonstratives, anti-unique definites, and other regular definites.

Anti-uniqueness of demonstrative: Background. Drawing on Lobner 1985, Robinson 2005 observes that while demonstratives refer to a unique entity, they have a requirement of anti-uniqueness, which distinguishes them from definites (1). (See also Roberts 2002, Wolter 2006)

(1) The/ #That sun is made of hydrogen and helium. (Robinson 2005: 51)

D&J argue that the anti-uniqueness constraint of demonstratives is not subject to satisfaction in the situation of evaluation, but in some larger situation; thus the contrast in (1) vs (2). Appealing to the notion of domain widening, they argue that the reference situation in (2) can be considered to be part of situations that contain more than one woman, which is not the case in (1) given the implicit anchor to our solar system. This is formalized as the anti-uniqueness presupposition (3), where the free variable y_n (*a la* Schwarz 2009) represents the object being demonstrated (intended referent):

(2) A woman came into the room. That woman sat down.

(3) $[\![DEM]\!] = \lambda s \lambda P : \exists s' s \leqslant s' | P_{s'}| > 1 . \iota x [P_s(x) \wedge x = y_n]$ [1] (Dayal & Jiang: 158)

Bangla data. In Bangla (a classifier language), definiteness is predominantly expressed via the combination of a bare noun and a classifier [N-CL], as in 4a (uniqueness) and 4b (anaphoricity).

(4) a. gram-er ekmatro dokan-ta bondho
village-GEN only store-CL close
'The only store in the village is closed.'

b. ek-ta chele esheshhe. chele-ta mishuke.
one-CL boy has-come boy-CL friendly
'A boy has come. The boy is friendly.'

Unlike English definites (1), N-CL definites exhibit anti-uniqueness and are not felicitous for globally unique nouns (5a), like demonstratives [DEM N-CL] (5b). Bare nouns are used in such cases.

(5) a. #surjo-ta pub dik-e othe.
sun-CL east side-LOC rise.HAB
'The sun rises in the east.'

b. #oi surjo-ta pub dik-e othe.
That sun-CL east side-LOC rise.HAB
Intended: 'That sun rises in the east.'

Anaphoricity contrast between definites vs demonstratives: Background. Recent experimental studies show that cross-linguistically demonstratives differ from definites vis-à-vis their anaphoric behavior as well. Manipulating two variables, (i) situation (**same vs. new**) and (ii) the number of NPs (**one vs. two**) (shown in (6) for English) in three languages, Bangla, English and Turkish, Saha 2023 and Saha *et al.* 2023 show that demonstratives are significantly more acceptable in new situations (consistent with D&J 2022), and in One NP contexts (where there is no other contrasting common noun property) (Fig 1). Bangla data was similarly constructed as shown in (6) and targeted the acceptability of N-CL '*chele-ta*' (*the boy*) vs DEM N-CL '*oi chele-ta*' (*that boy*).

[1] $\leq$ (part-of) is a mereological relation (as seen in the part-whole bridging contexts in Schwarz 2009). For (3) to account for sentences like '*That is the only tree left in the world!*', one would need an accessibility relation instead, which can take us to other (in this case, past) situations.

(6) {[$_{OneNP}$ 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)**

Proposal. To summarize, Bangla definites patterns with standard demonstratives vis-à-vis the anti-uniqueness phenomena, but it aligns with standard definites in its anaphoric behavior. So, we need to account for (i) the anti-uniqueness facts, which applies only to demonstratives in English, but to demonstratives ***and*** N-CL definites in Bangla, and (ii) the anaphoricity contrasts, where Bangla N-CL definites behave like English definites and unlike English demonstratives. What is at stake here is how to allow for cross-linguistic variation in the way different languages map on to different ingredients of definiteness. I argue that an informational structural approach to demonstratives that makes obligatory reference to alternatives can capture both these facts. Demonstratives pick a unique entity in the world of context w_C that satisfies the common-noun property and the intended referent property that is supplied by either (i) a demonstration for deictic uses or (ii) an anaphoric index in anaphoric uses, as in (7a) (a la Ahn 2019). This is fairly standard. The novelty of this proposal resides in suggesting that besides their ordinary semantic value, demonstratives obligatorily activate a set of alternatives, which denote other entities satisfying the common noun property that ***could*** have been pointed at in other possible worlds of evaluation accessible from w_C, as in (7b).

(7) a. $[\![DEM]\!]^o = \lambda P.\iota x[P_{w_C}(x) \wedge x = y_n(w_C)]$
   b. $[\![DEM]\!]^f = \{\lambda P.\iota x[P_{w'}(x) \wedge x = y_j(w')] : Acc_{w_C}(w'),\ j \in D_i\}$, where D_i is a salient set of demonstrative indices/ anaphoric indices depending on the use case.

I assume that alternatives can be factored into meaning in two ways: The first is via an additive operator (*ALSO*) (henceforth **Mode A**), as shown in (8) for the sentence '*That chair is broken.*'

(8) a. $[\![[That\ chair]_1]\!]^o = \iota x[chair_{w_C}(x) \wedge x = y_1(w_C)]$
   b. ALT (D) = $\{\iota x[chair_{w'}(x) \wedge x = y_j(w')] : Acc_{w_C}(w'), j \in D_i\}$
   c. Pointwise function application with the VP: ALT (S) =$\{broken_{w'}(c_1) \wedge \ldots \wedge broken_{w'''}(c_3)\}$
   d. $[\![ALSO_{ALT(S)}\ (S)]\!]^{w_C} = 1$ iff $[\![S]\!]^{w_C} = 1\ \wedge \exists w' Acc\ w_C\ \exists \phi \in ALT(S)[\phi(w') = 1]$
   e. Interpretation for '*That chair is broken*': That chair I am pointing at is broken and there is some chair in some alternative world w' that I could be pointing at in w' and be saying of it that is broken (in w').

Thus, the anti-uniqueness constraint falls out of the interaction between the alternatives and the additive operator. For globally unique nouns (*the sun*), the activation of an alternative set involving other suns in other possible worlds is marked, as such worlds are not easily accessible from w_C due to a default anchor to our current world (in line with D&J 2022). The second way to factor alternatives into meaning is via contrastive focus (**Mode B**), in the style of Rooth 1992. This happens in the anaphora cases: The DPs in the One NP and the Two NP cases would activate alternatives (in the form of their witnesses), as in (9a) and (9b), respectively.

(9) a. *a boy* $\rightarrow \{x \mid boy(x)\}$ b. *a boy and a girl* $\rightarrow \{x \oplus y \mid boy(x), girl(y)\}$

Whereas the witness set in One NP case (9a) is congruent with the alternative set for the demonstrative, the one in Two NP case (9b) is *not*; hence their degraded acceptability. While the activation of alternatives for demonstratives and their factoring into meaning via *ALSO* is a part of the computational system of grammar (hence their *categorical* unacceptability with globally unique nouns), their anaphoric behavior show pragmatic effects; hence, we see a gradience in acceptability. New situations result in domain widening (D&J 2022), facilitating the accommodation of alternate *boys*—allowing the satisfaction of the congruence requirement in the Two NP cases, improving

their acceptability. Lastly, I locate the cross linguistic variation in the idea that while Bangla N-CL constructions activate obligatory alternatives akin to demonstratives, they only allow for the satisfaction of alternatives via Mode A (giving rise to anti-uniqueness), and not via contrast, i.e., Mode B. Hence, they pattern with regular definites with respect to their anaphoric behavior.

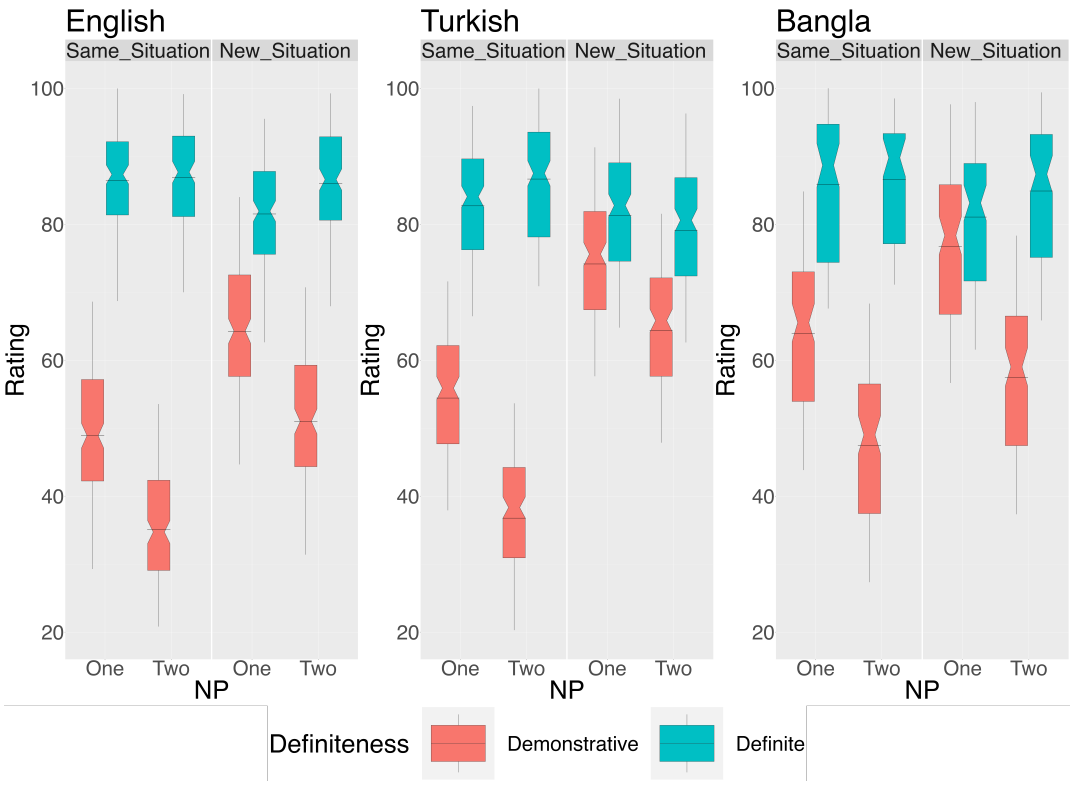

Figure 1: Anaphoric Definites vs Demonstratives: English, Turkish (Saha *et al.* 2023), and Bangla (Saha 2023, unpublished), with consistent methodology and 50 participants in Bangla and 60 in English, Turkish

References. **Ahn 2019.** That thesis: A competition mechanism for anaphoric expressions. PhD dissertation. **Dayal & Jiang 2022.** The puzzle of anaphoric bare nouns in mandarin: A counterpoint to *Index!* Linguistic Inquiry 54. 147–167. **Jenks 2018.** Articulated definiteness without articles. Linguistic Inquiry 49(3). 501–536. **Lobner 1985.** Definites. Journal of Semantics 4: 279-326. **Roberts 2002.** Demonstratives as definites. In K. van Deemter & R. Kibble (eds.), Information Sharing: Reference and Presupposition in Language Generation and Interpretation, 89–196. **Robinson 2005.** Unexpected (in)definiteness: plural generic expressions in Romance. PhD dissertation. **Rooth 1992.** A theory of focus interpretation. Natural Language Semantics 1(1). 75–116. **Saha 2023.** The anaphoric potential of demonstrative descriptions: An experimental study. Unpublished manuscript. **Saha, Sağ & Davidson 2023.** Focus on demonstratives: Experiments in English and Turkish. In Proceedings of Semantics and Linguistic Theory (SALT) 33: 460–479 **Schwarz 2009.** Two types of definites in natural language: PhD dissertation. **Simpson 2005.** Classifiers and DP Structure in Southeast Asia. In Guglielmo Cinque & Richard S Kayne (eds.), The Oxford Handbook of Comparative Syntax, 806–838. **Wolter 2006.** That's that: The semantics and pragmatics of demonstrative noun phrases. PhD dissertation.