Free choice and epistemicity in Bangla: A test for exhaustification based approaches
Ankana Saha, Harvard University

There is a rich landscape of free-choice and epistemic modal items in Bangla, centered around the morpheme *kono*, which have never been analyzed in complete detail. I present novel data to lay out the full paradigm, situating them with respect to existing typology, and argue that the full spectrum of their distribution and interpretation is best understood in a unified theory of polarity and free choice phenomena, couched in an implicature-based approach. (Chierchia 2006, *et seq.*)
Data (judgments come from the author, a native speaker): *kono* has the distribution of an NPI. It is licensed only under non-veridical contexts (1a) and ungrammatical in veridical contexts (1b).

(1) a. *ami kono khabar khabo   na.*　　　　b. **kono lok   gan geyechilo.*
　　　　 I   KONO food   eat.FUT.1 NEG　　　　　　 KONO person song sing.PST.PERF.3
　　　　 'I won't eat any food.'　　　　　　　　　　　 Intended: 'Someone sang.'

In contrast, the indefinites *je kono ekta (JKE)*, *kono ekta (KE)*, and *kono na kono (KnK)*, which share the common morphological root *kono*, are all PPIs (2). These items exhibit distinctions in their interpretation, and their distribution in overt modal (3a) vs non-modal (3b) contexts.

(2) *Pihu KE/ KnK/ JKE boi   porbe   na.*
　　　 Pihu KE/ KnK/ JKE book read.FUT.3 NEG
　　　 (i) ✓ 'There is some book that Pihu will not read.'　　　　　　　 [some > not]
　　　 (ii) # 'Pihu will not read any books.'　　　　　　　　　　　　　　 [not > some]

(3) a. *Pihu-ke   KE/ KnK/ JKE daktar-ke   bie   korte hobe*
　　　　 Pihu-ACC KE/ KnK/ JKE doctor-ACC marry do.INF must
　　　　 (i) KE - 'Pihu must marry some doctor. ✓ But it's not Dr Roy or Dr Ghosh.'
　　　　 (ii) KnK - 'Pihu must marry some doctor or other. # But it's not Dr Roy or Dr Ghosh.'
　　　　 (iii) JKE - Pihu must marry a doctor, any doctor is a permissible option.

　　　 b. *gotokal   Pihu KE/ KnK/ *JKE student-er   sathe dEkha korechhilo*
　　　　 Yesterday Pihu KE/ KnK/ JKE   student-GEN with meet   do.PST.PERF.3
　　　　 'Yesterday Pihu met some student.'

All three items in (3a) (i) make existential claims, and (ii) do not specify who the witness to the claim is, but they vary with respect to how they quantify over the domain of alternatives. *kono ekta* does not necessitate quantifying over all the entities in the domain of alternatives, that is, more than one (but not necessarily all) alternatives in the relevant domain qualify as possible options. Hence, a follow-up to (3a)(i) excluding Dr Roy and Dr Ghosh from the domain of alternatives is felicitous. In contrast, both *kono na kono* (3a)(ii) and *je kono ekta*(3a)(iii) necessitate quantifying over all the entities in the domain of alternatives, that is, all alternatives (rather than a subset of them) qualify as possible options.

　　　 But, while both *kono na kono* and *je kono ekta* exhibit total free choice effect, (3a)(ii) asserts that Pihu must marry some doctor, and the speaker doesn't have relevant knowledge/belief to exclude any doctors as a possible option. Crucially, this sentence doesn't assert that all doctors are eligible suitors for Pihu. (3a)(iii)on the other hand does assert that all doctors are equally eligible suitors for Pihu, and she can pick any one of them.

　　　 I also demonstrate that *je kono ekta* exhibits a further restriction in overt modal contexts in disallowing embedding under epistemic modal operators (both possibility and necessity).

(4)   *gotokal   Pihu hoyto/ nischoi   KE/ KnK/ *JKE student-er   sathe dEkha*
      Yesterday Pihu maybe/ definitely ᴋᴇ/ ᴋɴᴋ/ ᴊᴋᴇ   student-ɢᴇɴ with meet
      korechhilo
      do.ᴘsᴛ.ᴘᴇʀꜰ.3
       'Yesterday Pihu probably/definitely met some student.'

Proposal: I propose that the differential distribution of the two total free choice items can be captured by positing that they select for different modal bases. *kono na kono* is anchored to a speaker-oriented epistemic modal base, while *je kono ekta* only selects for an agent-oriented bouletic modal base. This generalization can capture the ungrammaticality of *je kono ekta* in both (3b) and (4). In (3b) the observed grammatical interpretation of *kono ekta* and *kono na kono* is assumed to come about through a self-licensing null assertoric modal $\Box_S$ applied high in the left-periphery of the LF at the speech-act level, with the assertoric operator ranging over the speaker's epistemic alternatives. This rules out the use of *je kono ekta* in such contexts due to its incompatibility with a epistemic modal base.

Taking the example of (3a), we can assume the domain of doctors under consideration to be the set D = {a, b, c}. Adopting the framework in Chierchia (2013), we account for the interpretation of *kono* and the three indefinites by assuming that they obligatorily activate alternatives. The different interpretations (partial and total ignorance/random choice) are argued to stem from the interaction between (i) the types of alternatives they activate (scalar and domain alternatives), and (ii) the way these alternatives are factored into meaning via the mechanism of exhaustification. The distribution of *kono* can be shown to follow from exhaustifying the assertion with respect to simple domain alternatives. In contrast, the marked indefinites require pre-exhaustified alternatives. The parameters of variation that gives rise to the observed paradigm has been summarised in the table below. Taking Bangla as a case-study, we reinforce the viability of an alternative based approach to account for the patterns of cross-linguistic variation we encounter in the domain of polarity sensitive elements and dependent indefinites.

Types of alternatives	Simple domain alternatives + scalar alternatives	exhaustified domain alternatives (= free choice interpretation) + scalar alternatives (= existential interpretation)	exhaustified singleton domain alternatives (= free choice interpretation) + scalar alternatives (= existential interpretation)
Bangla NPI and ∃-FCIs	*kono*	*kono na kono, je kono ekta* (anchored to different modal bases)	*kono ekta*

Selected Bibliography: ● Alonso-Ovalle, L., Menendez-Benito, P. 2010. Modal indefinites. Natural Language Semantics, 18(1), 1–31. ● Chierchia, G. 2013. Logic in Grammar: Polarity, free choice and intervention. Oxford: Oxford University Press. ● Falaus, A. 2014. (Partially) Free Choice of Alternatives, L&P 37 (2): 121-173.