Strong and Weak Determiners in Bangla:

A preliminary report

Tanmoy Bhattacharya	Sanjukta Ghosh	Aparna Mukh
Department of Linguistics	Department of Linguistics	Centre for Lin
University of Delhi	Banaras Hindu University	Jawaharlal Ne
tanmoy@linguistics.du.ac.in	sanjukta@bhu.ac.in	aparna.jnu27@

Aparna Mukherjee Centre for Linguistics Jawaharlal Nehru University aparna.jnu27@gmail.com

1 GENERAL GOAL

This goal of this talk is to account for the distribution of some of the quantifying expressions in Bangla in terms of their behaviour with respect to genericity, distributivity and countability as well as their scope and quantificational force.

2 PARTICULAR GOALS

Specifically, we show that:

- Only a DP (and not NP) can account for quantificational properties in Bangla
- Though Strong and Weak distinction parallels Quantificational/ nonquantificational distinction, within the latter, there's no difference between independent and dependent Qs (a and some/ reduplicated indefinite/ some-X-or-other, respectively)
- The ambiguity in case of $\neg \exists$ is only apparent

3 QUANTIFIERS TO BE STUDIES

The quantifying expressions taken up for investigation broadly (a more fine-grained classification will follow in section 4.2) are the following:

Universal Determiners: *prottek* 'each/ every' and *SOb* 'all' Indefinite Determiners: *Ek* 'one' and *keu/ kichu* 'some'

4 UNIVERSAL DETERMINERS IN BANGLA

Barwise and Cooper (1981) show that many natural language quantifiers combine with a set expression and produce a quantifier, they thus correspond to the structure of determiners, hence the term, 'universal determiners'. They propose the following universal:

(1) **U1 NP-Quantifier Universal**: *Every natural language has syntactic constituents* (called noun-phrases) *whose semantic function is to express generalized quantifiers over the domain of discourse.*

This parallels the Syntactic depiction:

(2) a.	Quan	tifier	b.	NP
				\frown
	Determiner	Set Expression	DET	Ν
	every	woman	every	woman

This implies that the meaning of a Q (*every*) is given by its relation with the set expression (*woman*) and its relation with the predicate of the sentence (*is tall*) in which it may occur:

(3) Every woman is tall.

We show that this demands that a full DP be projected in Bangla to account for the quantificational force of the universal determiner.

4.1 DP (not NP) is projected in Bangla

The following shows that a bare *every X* is anomalous in Bangla:

(4)	a.	#prottek chele	c.	prottek	chele-i
		every boy		every	boy-EMP
	b.	prottek-Ti chele	d.	prottek	chele-r
		every-CLA boy		every	boy-gen

 \Rightarrow Something else (classifier, emphatic marker or genitive) is required to make it a referential expression. I.e. the structure of the Bangla DP proposed in Bhattacharya (1999) is required to accommodate the above:



 \Rightarrow The relation between a Universal Determiner and the predicate of sentence in which it appears is possible only if the noun phrase is referential, i.e., a DP.

4.2 Behaviour of Universal Determiners

The Determiners investigated are as follows:

prottek	
'every/each	ı'
proti	
prottek	
prottek	
prottek-Ta	
prottek-e-i	

SOb 'All' SOb-a-i SOb-gulo SOb-Ta SObol-(i) SOkol-e-i Somosto-(Ta) puro-(Ta) goTa Sara-(Ta)-N

4.2.1 prottek

All the forms of this determiner are singular, distributive and countable. They do not normally express genericity except *prottek* and *prottek-e-i*:

(6)	a.	prottek	та	cay	je	tar	meye	unnoti	koruk
		every	mother	wants	that	her	daughter	progress	s does
		'every n	to succeed.'						

b. *prottek-e-i cay je tar SOntaner khoti na hok* every-AGENT-EMP want that her offspring's damage not happen 'every mother wants that no harm is caused to her offspring.'

proti is rather a\formal and somewhat archaic, assumes a location, often displays paired distribution:

(7)	a.	proti	gache-r pro	oti Dal-e		
		every	tree-GENeve	ery branch	-LOC	
		'in even	ry branch of e	every tree.'		
	b.	proti	ghOr-e	ghO-re	alo	jolche
		every	home-LOC	home-LOC	light	burning
		'there's	s light in each	and every ho	ouse.'	

The non-generic reading for *prottek* and *prottek-e-(i)* is as follows:

(8)	a.	prottek	chatro	-i pi	uroSkar	peyech	e	
		every	studen	it-EMP av	ward	receive	ed	
'every student got an award.'								
	b.	prottek-	e el	е	kaj	Suru	hObe	
		every-A	GENTCO	ome.CON	D work	start	happen.FUT	
		'the wor	rk will s	start after	r/ if every	one come	es.'	

4.2.2 SOb

The forms of *SOb* can be further divided into three subgroups:

<u>SOb group</u>: are plural (or whole), mass (except for X-gulo), are nongeneric (except for SOb-CLA):

- (9) a. Sob jOl Sukiye gEche all water dryCP went 'all the water dried up.'
 - b. *SOb SomoSSa-r-i SOmadhan ache* all problem-GEN-EMP solution be 'every problem has a solution'
 - c. *SOb-a-i* cole gEche all-AGT-EMP go.CP went 'everyone has gone away.'
 - d. *SOb-a-i unnoti korte cay* all-AGT-EMP progress do.CP want 'everyone wants to succeed.'
 - e. *SOb-gulo phOl-e poka dhoreche* all-CLA fruit-LOC insect caught 'all the fruits have got insects.'
 - f. *SOb-Ta dudh kheye nao* all-CLA milk eat.CP take.2 'drink up the milk.'

<u>SOkol group</u>: Out of this group, SOkol-(i) is literary and show properties different from the others, like distributivity, countability and genericity:

- (10) a. SOkol gOlpe-r Ek-i Onto all story-GEN one-EMP end 'all stories end similarly.'
 - b. *SOkol-i tomar-i iccha* all-EMP your-EMP wish 'everything is your wish.'

The other two can be generic, mass and nondistributive:

- (11) a. *SOkole mile kaj kOra...* all.AGT together work doing 'everyone working together.'
 - b. *SOkole baire elo* all.AGT outside came 'everyone came outside.'
 - c. *SOkol-e-i nije-r unnoti cay* all-AGT-EMP self-GEN progress wants 'everyone wants his/ her success.'

d. *SOkol-e-i Ek gan gailo* all-AGT-EMP one song sang 'everyone sang an identical song.'

puro group: they fail to take a generic reading and distributivity/ countability is irrelevant as they express a part/ whole quantification:

- (12) a. *puro am-Ta khelo* whole mango-CLA ate '(s/he) ate up the whole mango.'
 - b. *puro bEpar-Ta-i golmele* whole matter-CLA-EMP messy 'the whole matter is messy.'
 - c. *goTa bEpar-Ta-i golmele* whole matter-CLA-EMP messy 'the whole matter is messy.'
 - d. *goTa tin-ek* (vague) whole three-one 'three or so.'
 - e. *Sara-Ta din cole gElo* whole-CLA day gone went 'the whole day passed away.'
 - f. *Sara din Sudhu kanna* whole day only crying 'the whole day, there has been crying.'

4.3 Indefinite Determiners

Farkas (2002) proposes a Constraint-based approach to indefinites which highlights their nonquantificational nature. In this approach, indefinites are divided between dependent and independent types where the former type displays a limited distribution compared to the former. The indefinite a(n) is thus the unmarked indefinite in English showing the following diagnostic properties:

- (i) Both $\forall > \exists$ and $\exists > \forall$
- (ii) Genericity
- (iii) −∃

The following obtains in Bangla:

READINGS	Ek	keu/ kono/	keu-na-keu/	EXAMPLES	COMMENTS
	ʻa'	kichu/	kono-na-	A, B, C	
		kOek	kono/		
		'some'	kichu-na-		
			kichu		
			'some X-or-		
	Α	В	other'		
		_	C		
Dependent	\checkmark	\square	\square	A:	B1/2/3: no iota reading
-					C: no iota reading available due
					to vagueness induced
∃-Binding	\square	X			A1: ∀∃
	\mathbf{X}				A2: ∀∃/ ∃∀
					B2: only ∀∃
					C: only ∀∃
Generic	X	X	\mathbf{X}		A: ok with specific modality
					B: ok with NPI reading of <i>kono</i>
Negation]_	E /E	3-		A: Bare NP too gives indef.
U U					specific reading; Ek-Ta-o/ kono
					gives –∃
					B1: ¬∃; B2: ∃¬
					C: ∃-,

The following data show the result summarised in the table above:

Dependent reading

(13) a.	<i>prottek</i>	chatro Ek -Ta	boi A book	poReche	Α∃
	évery	student bas mad a	hoole?	llas leau	
-	every s	tudent has read a	DOOK.		、 <i>(</i> ¬
b.	prottek	mondire-i	kono	debota ache	$\forall \exists$
	every	temple.LOC-EMP	some	god be	
	'every to	emple has a god.			
с.	prottek	baRi-te-i	keu	aSbe	¥Ξ
	every	home-LOC-EMP	someon	e come.FUT.3	
	'someor	ne (or other) will	come to e	every home.'	
d.	prottek	chatro-i kic	hu	kheyeche	¥Ξ
	every	student-EMP son	nething	has eaten	
	'everv s	tudent has eatn so	omething.	,	
e	prottek	chele-i kichu-i	na-kichu	cay	¥Ξ
0.	every	boy-EMPsometh	ing_or_so	mething wants	• _
	'overy h	ov wants someth	ing or oth	or'	
	everyu	by wants someth	ing of ou	101.	
D					
Existent	tial Bindi	ng			
(14)		-l	COmm		$\neg \lor$

(14) a. prottek chatror Ek SOpno $\exists \forall$ every student-GEN one dream 'every student has the same dream.'

But also:

b.	prottek chatro Ek -Ta boi poReche	e *3A\ A3
	every student one-CLA book has read	
	'every student has read a book.'	
c.	prottek baRite-i keu aSbe	*∃∀ (see (13c))
d.	prottek barite-i keu-na-keu aSbe	$*\exists \forall$

every house-LOC some-DISJ-some come.FUT.3 'someone or other will come to every household.'

Genericity

None of the indefinites show genericity though the following may seem to be counter examples:

(15) a.	Ek-jon	manus	jOkhon	nijer	kOpal-ke	doS	<i>dEy</i>				
	one-CLA	human	when	selfGEN	forehead-DAT	fault	gives				
	'When a (hu)man faults his/ her own luck'										
b.	kono	manus-i	aine	e-r bai	re nOy						
	no one	human-H	EMP law	-GEN out	side NEG						

Similarly in Hindi:

(16)	Ek aadmi	jab	apne-aap-ko	kostaa	hai
	one human	when	selfGEN-self-DAT	blames	be

'on one is outside the law.'

However, both (15a) and (16) show a specific modality and (15b) shows a typical NPI licensing environment, both of these therefore can be discounted.

Scope of negation

ennormig i ", except for some .	
(17) a. ami Ek-Ta boi poRi ni	<u>—Е</u>
I one-CLA book read.NEG	
'I haven't read book.'	
b. ami kichu khai ni -	Ξ
I something eatNEG	
'I didn't eat anything.'	
c. kichu chele aSe ni	Э
some boy comeNEG	
'some boys haven't come.'	
d. protodin keu-na-keu aSche na	Э-,
everyday someone-or-s.o. coming NEG	
'someone or other is not coming everyday.'	

The wide scope of negation for *some* in (17b) can be explained on the basis of the fact that it is felicitous when either the indefinite is C-lengthening or appears as NPI (with emphatic -i):

(18) a. *ami kicchu khaini* I something eatNEG b. *ami kichu-i khaini* anything

Thus we see that the independent indefinite *Ek* behaves exactly like the dependent indefinite *keu/kichu/kono* in Bangla.

5 Conclusion

The identical behaviour of *some*/ a with respect to the above diagnostics, turn out to be predictable in the Barwise and Cooper system since they are both weak quantifiers. Thus unlike Hungarian and English as in Farkas (2002), indefinites in Bangla as a class behave identically.

References

- Barwise, Jon and Robin Cooper. 1981. Generalized Quantifier and Natural Language. *Linguistics and Philosopy* **4**: 159-219.
- Bhattacharya, Tanmoy. *The Structure of the Bangla DP*. Ph.D. dissertation, University College London, London.

Farkas, Donka. 2002. Varieties of Indefinites. SALT 12.