(In)definiteness through Genericity

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English

Generic/Kind-level Statements

1a. Dodos are extinct.

- b. *The dodos are extinct.
- 2a. *Dodo is extinct.
 - b. The dodo is extinct.

<u>Definite and Indefinite Object-level Statements</u>3a. 500 years ago, #a/the little girl lived in this house.b. I bought a book and a pen. The/#a book was red.

English

There are clear constraints on the morpho-syntactic forms that can be used to express generic statements: No determiner if noun is plural; Definite determiner if noun is singular.

There are clear constraints on the form of the noun phrase that can be used for object level statements:

Definite determiner iff there is a unique familiar/salient individual that meets the description

Beyond English

- 3a. [Dinosaurs] are extinct.
 - b. [The dinosaur] is extinct.

4a. [I dinosauri] sono estinti.[II dinosauro] è estinto.

5a. I read [the/a book]
b. maiN-ne [kitaab] paRhii
I-ERG book read
"I read the/a book."

ENGLISH

ITALIAN

ENGLISH HINDI

Is it the case that the definite determiner in generic statements is an expletive/a pleonastic determiner? => [_{DP} the [_{NP} N]]

Is it the case that in languages that don't have articles bare NPs are definite? => [_{DP} Null_{the} [_{NP} N]]

The belief that morpho-syntax and semantics are in strict correspondence is presumably the source of this view of pleonastic and null determiners.

English [_{DP/NP} dogs] English [_{DP} the [dog]]

Italian $[_{DP} + [_{NP} \cap cani]]$ Hindi $[_{DP} \emptyset_{the} [dog]]$

But perhaps the choice of Null vs. Pleonastic is a theoretical decision that is driven by analogy to the language where the phenomenon was first studied

Italian $\begin{bmatrix} DP & I \end{bmatrix} \begin{bmatrix} DP & I \end{bmatrix}$ Hindi $\begin{bmatrix} DP & P & DP \end{bmatrix}$

English $[DP \phi_{\cap} [NP dogs]$ English [DP the [NP dog]]

Had (in)definites been studied in Hindi first and kind terms in Italian, we might well be working with the opposite set of assumptions the form-meaning correspondence.

Hindi [_{DP/NP} dog]

English [_{DP} the/a [dog]]

In fact, not only the definite article but even the indefinite article would have been subject to the same fate, given that bare NPs in languages without articles are often taken to be ambiguous between the two.

Some fundamental questions:

- Is the bare NP in (languages like) Hindi = the definite and/or the indefinite noun phrase in (languages like) English?
- Is the plural definite generic (languages like Italian) = the bare plural generic in (languages like) English?
- Is the singular definite generic = the bare/definite plural generic in any language?

IOTA 1KIND-FORMATION ^DefiniteGeneric

EXISTENTIAL ∃ Indefinite



IOTA 1: Definite; KIND-FORMATION [^]: Generic; EXISTENTIAL \exists : Indefinite

6a. Dogs have evolved from wolves. evolve-from (^dogs, ^wolves)
b. Dogs are barking outside. barking(^dogs) =DKP=> ∃ x [∪ ^dogs & barking(x)]

7a. A student came in. The student looked happy.
∃ x [student(x) & came-in(x)]
looked happy (ıx [st(x)])
b. A student didn't pass the exam.
∃ x [student(x) & ¬pass-the-exam(x)]

Kind-derived indefinite readings are not a subset of indefinite readings.

8a. John didn't read a book. ∃ > Neg, Neg > ∃
b. John didn't read books.
Kind-derived Indefinite reading (= Neg > ∃).

9a. John killed a rabbit/some rabbits repeatedly. ∃ > Adv
b. John killed rabbits repeatedly.
Kind-derived Indefinite reading (= Adv > ∃).
Carlson 1977

Against the theoretical background, we can now return to the questions we had indentified as critical.

• Is the Italian plural definite generic identical to the English bare bare plural?

 Is the bare NP in (languages like) Hindi = the definite and/or the indefinite noun phrase in (languages like) English?

With regard to the first question, we know that the Italian definite plural definite generic is not identical to the English bare plural.

Dogs are barking = *there are dogs barking* but not the Italian counterpart.

We will focus on the second question:

Is the bare NP in (languages like) Hindi = the definite and/or the indefinite noun phrase in (languages like) English?

The Ambiguity View of bare NPs in Languages without Articles

Bare NPs in languages without articles are ambiguous between <u>definites</u> and <u>indefinites</u>.

A More Nuanced View

Bare NPs in languages without articles are <u>indefinites</u>, but unlike indefinites in languages with definites, they lack the implicature that they are not <u>definites</u>.

The answer that comes out of our present analysis of English is that in languages without definiteness marking, the relevant "ambiguous" DPs may simply be indefinites. They are semantically equivalent to English indefinites. But they have a wider range of felicitous uses than English indefinites, precisely because they do not compete with definites and therefore do not get strengthened to carry the implicatures that would show up if they were uniformly translated as indefinites into English.

Heim (2011)

- A bare nominal is specific or definite in Hindi whereas an indefinite is marked with numeral *ek* 'one' and by indefinites pronoun *kuc^h* 'some'. Verma 1971, Masica 1991
- Generics and definites are unmarked in Hindi and indefinites are marked with numeral *ek* 'one'. Kachru 1980
- Bare nominals are ambiguous between indefinite and definite readings in Hindi. Mahajan 1990, Mohanan 94
- The default interpretation assigned by UG to bare nominals in Hindi is indefinite. Their definite interpretation essential a pragmatic process. Kidwai 2000, Thakur 2015

(From Alok 2016)

The Ambiguity View



The More Nuanced View



Some Diagnostics for Definiteness

Anaphoricity 10. A boy and a girl came in. The/#A boy laughed.

Homogeniety11a. #The dog is sleeping and the dog is running.b. This/A dog is sleeping and this/a dog is running.

12a. anu-ne ek kitaab aur ek kameez khariidii. Anu-ERG one book and one shirt bought. <u>kitaab</u> mehengi thii. book expensive was. "Anu bought a book and a shirt. The book was expensive." Anaphoricity 12b. # <u>kuttaa</u> so rahaa hai aur <u>kuttaa</u> bhaunk rahaa hai dog sleeping is and dog barking is "The dog is sleeping and the dog is barking."

Homogeneity

• HINDI BARE NPS ARE DEFINITE

Some Diagnostics for Indefiniteness

Partitive Specificity13. There were several kids in the room.The teacher told a kid/#the kid to draw.

Referential Specificity

14. If a relative of mine dies, I will inherit a fortune.

The Definite-Indefinite Dichotomy <u>Some Diagnostics for Indefiniteness</u> Scope Interaction

15a. Every student read every paper on some topic. Every student $> \exists$ topic > every paper

b. If a student complains, you will be in trouble. $\exists x [st(x) \& comes(x)] \rightarrow in-trouble(you)$

16a. John killed some rabbits repeatedly. $\exists > Adv$ b. John killed rabbits repeatedly. $Adv > \cap$

(Adv > ∃)

17a. kamre-meN das bacce the. room-in ten kids were
b. #laRkaa aur laRkii taash khel rahe the. boy and girl cards playing were.
c. ek laRkaa aur ek laRkii taash khel rahe the. one boy and one girl cards playing were. Partitive Specificity

• HINDI BARE NPS ARE NOT INDEFINITE

WRT PARTITIVE SPECIFICITY

18a. agar <u>mere rishtedaar</u> ki maut ho jaaye, if my relative of death happens to mujhe kaafii paisa milegaa then to-me quite a lot money will get "If my relative dies, I'll get a quite a bit of money" (I have only one relative)

 b. agar <u>mere ek rishtedaar</u> ki maut ho jaaye, to mujhe kaafii paisa milegaa my one relative "If one of my relatives dies..."

(specific indefinite, a specific one out of several)

HINDI BARE NPS ARE NOT INDEFINITE WRT REFERENTIAL SPECIFICITY

The Definite-Indefinite Dichotomy 19a. har bacce-ne *(<u>kisi na kisi</u>) <u>vishai par</u> every child some not some topic on har lekh paRhaa every essay read "Every child read every essay on some topic or other."

19b. ? har bacce-ne <u>vishai</u> par har lekh paRhaa every child topic on every essay read "Every child read every essay on the topic."

HINDI BARE NPS DO NOT HAVE INTERMEDIATE SCOPE READING.

Conclusion about Hindi:

- Bare NPs are definites
- They are not indefinites

This follows from the ranking: $\{1, \cap\} > \exists$ (revision of Chierchia 1998 in Dayal 2004)

A Further Wrinkle: Indefinite Readings?

20a. agar <u>vidyaarthii</u> aaye, to use roknaa
if student comes then him/her stop
"If the student comes, ask him/her to wait."
b. agar <u>koii vidyaarthii</u> aaye, to use roknaa
if some student comes then him/her stop
"If a/any student comes, ask him/her to wait."

HINDI BARE NPS DO NOT HAVE NARROW SCOPE READINGS (SURPRISINGLY).

21a. maiN <u>kitaab</u> nahii paRh sakii

book not read could

"I couldn't read a/the book." $* \exists > Neg; Neg > \exists;$

* \exists > Neg; Neg > \exists ; Neg(read(ιx . book(x))

Bare NPs have narrow scope wrt Negation. But how real is this effect?

21b. anu-ne <u>bacce-ko</u> khilona (nahiiN) diyaa Anu child-DAT toy (not) gave "Anu gave/didn't give the child a toy." (Neg)(give(a, **tx. child(x)**, __)

There is no bona-fide indefinite readings for bare NPs in Hindi.

There are two sources for the perceived ambiguity of bare NPs:

 (i) In direct object position, a non case marked bare NP can pseudoincorporate with V (complex predicate formation, pseudo noun incorporation) and yield a narrow-scope indefinite reading.

There may be other constructional sources, for example, the equivalent of *there-insertion* contexts.

In these cases the bare NP denotes type <e,t> with possible existential binding due to the semantics of the construction.

(ii) Narrow scope indefinite readings can also be derivative on kind-level readings of bare NPs but singular and plural terms differ:
 Plural kind terms generally allow such readings.
 Singular kind terms are more restricted wrt such readings, allowing representative object (of the kind) readings.

22a. kuttaa aam jaanvar hai
dog common animal is
"The dog is a common animal."
22b. kutte yehaaN aam haiN
dogs here common are
"Dogs are common here."

Our discussion centered on singular NPs, which are resistent to kind-derived indefinite readings. (23a)-(23b) illustrate the difference in (in)definiteness:

23a. anu-ne <u>bacce-ko</u> khilona (nahiiN) diyaa Anu child-DAT toy (not) gave "Anu gave/didn't give <u>the child</u> a toy."

23b. anu-ne <u>baccoN-ko</u> khilone (nahiiN) diye Anu children-DAT toys (not) gave "Anu gave/didn't give <u>the children/children</u> toys."

To return to the question of structure. Are Hindi bare NPs DP with a null D?

[_{DP} Null_{the} [_{NP} dog]]

Everything we have said is consistent with this, but nothing we have said forces it.

If we want to predict that the null determiner must be a definite determiner and not an indefinite determiner, we would need to replicate the effect of Ranking of Type Shifts.

Is the Italian definite generic a pleonastic?

[_{DP} i [_{NP} canni]]

If it were a pleonastic, we would predict it to have exactly the same meaning as the English bare plurals. But we know it does not.

Instead, we need something like the following to capture this:

- Bare plurals in languages with articles cannot be linked to a salient ordinary individual (via identity or inclusion).
- Definite plurals in languages with articles must be identified with a salient individual, a kind or an ordinary individual.

Truth Universally Acknowledged

&

Experimentally Established

Learners of L1 article-less languages have difficulty with the article system of L2 languages with articles.

In naturally occurring language, there are mistakes of <u>omission</u> and <u>misuse</u> by speakers of L1 with no articles speaking an L2 with articles:

24a. I am sure we will have beautiful and memorable ceremony. Just remember that during ceremony, bride and groom ..."

b. I am sure we will have **[A]** beautiful and memorable ceremony. Just remember that during **[THE]** ceremony, **[THE]** bride and groom ..."

25a. I have taken <u>the</u> bath.

b. I have taken **[A]** bath.

Many studies have shown that neither errors of omission nor misuse occur in acquisition of L2 with articles by L1 with articles, and that both errors of omission and errors of misuse occur in acquisition of L2 with articles by L1 without articles (Ko et al 2010, Schönenberger 2014, a.o).

These studies assume that bare NPs in L1 without articles are ambiguous, and the errors they detect are predicted. And very often they target the direct object position, a position where bare NPs indeed turn out to have both definite and indefinite readings.

- Written forced-choice tasks (Ionin 2003) provide sentences in L2 with blanks and ask the subjects to fill in the blank with THE, A or ø.
- The working hypothesis behind these studies is that bare NPs in L1 are ambiguous.

If studies were to target positions where L1 distinguishes between definite and indefinite readings, we may see different results.

- To be avoided:
 - plural noun phrases which have kind-based indefinite interpretations in L1

direct object positions which can have incorporation-induced indefinite interpretation in L1.

26. There were ten children in the room.

<u>A</u> girl was playing in the corner.

one/*ø No error

L2

L1

This is a context where L1 lines up with L2: Partitive specificity requires the use of numeral *one* in L1. Direct transfer from L1 predicts no errors.

27. This is a very rich school. If <u>A</u> student wants to study something, we have to offer it. Any/Some/*ø

This too is a context where L1 lines up with L2: narrow scope \exists requires the determiner *some/any*. direct transfer from L1 predicts no errors. L1

L2

No error

28. A child came in. <u>THE</u> child sat down.

Ø omission error

This is a contexts where L1 and L2 each have only one option, though not the same one ('the' in English, bare in Hindi).

Here, the only error should be an error of omission. Subjects should not choose the indefinite determiner [A] because they would not use the numeral *one* in this context.

- Two quotes from Schoenenberger (2014: 84), (2014: 99-100) prove to be quite telling in the context of the conclusions reached about Hindi:
- The experiment was designed "to ensure that word order would not influence article choice, all the test items contained transitive verbs and article choice always concerned <u>nominals in the object position</u>. These nominals were singular count nouns, which always require an article."

• "Article omission is significantly higher with definites than with indefinites"

Are all article-less languages like Hindi, ie are bare NPs in all article-less languages kind terms and definites but not indefinites?

My instinctive (and somewhat considered) answer is: YES

There are, of course, claims to the contrary:

Russian bare NPs are ambiguous between kinds, definites and indefinites (Bronnikov 2006)

And yet:

29a. Esli ego žena delaet požertvovanije **kakomu-nibud politiku**, John rasstraivaetsa. On vne politiki.

"If his wife donates money to <u>a politician</u>, John gets upset. He hates politics."

b. Každyj student pročital bolshinstvo statej po **odnoi teme**. Sue čitala pro voprosy, Bill pro zalog...

"Every student has read most papers on <u>one topic</u>. Sue read about questions, Bill about aspect..."

(Vera Gor, p.c.)

• There is another use of indefinites that may be a source of variation, across languages but also maybe within languages.

Presentational contexts:

30. Yesterday, as I was walking home I saw <u>a man talking to a child</u>.

There is variation even within languages on this score. People report preferring an overt indefinite (with unstressed *one*) if the next sentence is going to focus on that individual.

There isn't a very good theory of this right now.

- Direct object positions allow for indefinite readings.
- Subject position may be topic-like and favor definite readings.
- Indirect object positions are neutral in these respects but Russian bare NPs in indirect object positions seem to disallow indefinite construals: narrow scope and intermediate scope readings.
- This is something that needs to be controlled for more systematically in fieldwork in order to make definitive claims.

In principle, variations are possible by modulating the principle that ranks covert type-shifts but one has to decide at what point such a theory begins to lose theoretical bite:

Ranking of type-shifts: $\{i, \cap\} > \exists$ = kind, definite only No Ranking of type-shifts: kind, definite and indefinite

Ranking kind formation high: $^{\cap} > \{ \exists, \iota \} =$ only kind Ranking definiteness high: $\iota > \{ \exists, \cap \} =$ only definite Ranking indefiniteness high: $\exists > \{^{\cap}, \iota \} =$ only indefinite

Note: By *indefinite* we mean bare NPs that are intuitively considered *indefinite* in all syntactic positions and display full range of scopal properties.

Conclusion

- (In)definiteness is a universal concept but its morpho-syntactic expression varies.
- Languages can choose to express (in)definiteness through the use of definite and indefinite determiners.
- Languages can tap into covert type shifts in the absence of definite and indefinite determiners.
- When the covert type shift involves kind terms, singular-plural distinctions will emerge.
- Covert type shifts are subject to restrictions: ranking, blocking
- There is no semantic motivation for positing null/pleonastic determiners

THANK YOU!

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Some Semantic Universals

Barwise and Cooper (1981):

All natural language determiners are conservative, ie for all sets A, B: $D(A)(B) \equiv D(A)(A \cap B)$

Bach et al (1995):

"every language provides some means for making general statements."

<u>Chierchia</u> (1998): A semantic parameter for NP meaning: e and/or <e,t>

BLOCKING

Blocking:

Covert type shifts are blocked by overt determiners with the same meaning. (Chierchia 1998).

English bare plurals are not definites but Hindi bare plurals are:

5a. I bought some books. *(The) books were expensive.
b. main-ne kitaabeN khariidiiN. kitaabeN mehengi thiiN.
I-ERG books bought. Books expensive were

The Puzzle of Somali bare NPs:

26a. Axmed oo ban-ka lugaynayey ayaa arkay aqal Axmed REL desert-DET was-walking FOC saw house
"Axmed was walking in the desert and saw a house."
b. #Aqual duug buu ahaa house old FOC=3s was "A house was old."
c. Ey wuu jiifaa ey-na wuu ordayaa Dog DECL sleeps dog-CONJ DECL runs "A dog was sleeping and a dog was running."

Özyildiz & Ivan (2016)

Could languages vary wrt ranking: Somali could be a language where all three covert type shifts are equally ranked, with iota being blocked by the overt determiner.

However, we could only make this claim if Somali bare NPs are kind terms AND display the full scopal behavior of English indefinites.

Setting the Somali puzzle aside, we can make the following (tentative) claim:

Bare NPs in languages without articles do not display bona fide indefinite behavior (scopal flexibility + introduction of discourse referents).

A universal set of ranked type shifts is definitely one explanation.

Is it possible to derive the absence of indefinite readings for bare NPs from the blocking principle?

Definite articles evolve from demonstratives, indefinite articles from numeral 'one'.

All languages have demonstratives and the numeral 'one'.

Demonstratives are substantively different from definites, so they do not block iota as a covert type shift.

The numeral 'one' may be close enough in meaning that it blocks the existential type shift, but is unstressed ek 'one' close enough to the indefinite determiner to block the existential type shift?

Neutral Narrow Scope & Genericity Tests:

b. A student works hard.

27a. I didn't read a book. 28a. I didn't read one book. b. One student works hard.

29a. main-ne ek kitaab nahiiN paRhii I-ERG one book not read "There's a book I didn't read." "I didn't read even one book." NOT "I didn't read any book."

29b. ek vidyaarthii mehnat kartaa hai one student effort does "One student works hard" NOT "A (any) student works hard."

Blocking of covert type shifts by overt determiners and Maximize Presupposition make distinct predictions.

Both predict: 8. I bought some books. *Books were expensive.

Blocking predicts that bare NPs cannot shift by ∃. Maximize presupposition does not apply -- there are no presuppositions involved.

9a. John didn't read a book. ∃ > Neg, Neg > ∃
b. John didn't read books. Kind-derived Indefinite reading = (= Neg > ∃). Carlson 1977

Maximize Presupposition: If two forms have the same assertive content but one has a presupposition, use the expression with the presupposition if possible:

6a.
$$\llbracket \text{the} \rrbracket = \lambda P \lambda Q$$
: $\exists !x [P(x)]$. $\exists x [P(x) \& Q(x)]$
b. $\llbracket a \rrbracket = \lambda P \lambda Q \exists x [P(x) \& Q(x)]$

7a. John looked at the sun.b. # John looked at a sun.

(In)definiteness & Genericity Ranking of covert type shifts

Bare NPs (type <e,t>) shift to type e or type <<e,t>,t>:

- Type-shifts apply freely \Rightarrow bare NPs are 3-way ambiguous
- $^{\circ} > \{\iota, \exists\} \Rightarrow$ bare NPs can only be kind terms (Chierchia 98)
- $\{ \cap, \iota \} > \exists \Rightarrow$ bare NPs can be kind terms and definites,

but not indefinites (Dayal 2004)