Elicitation and Documentation of Definiteness and Quantification

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Section 1

Introduction
Dimmendaal (2001:69)

“The referential meaning of nouns (in terms of definiteness and specificity) is an intricate topic that is extremely hard to investigate on the basis of elicitation. In the end it is texts or connected discourse in general in the language under investigation which provide the most important clues for analysis of these grammatical domains.”
Fieldwork problems

**Problem 1: Ambiguity**

(1) [m̀aː] jàj mâak
    dog  big very

    ‘(The/A) dogs is/are very big.’ (Thai)
**Problem 2:** No equivalent translation

(2) Kòfí hú-ù [òtòmfù (#nò)]
Kofi see-Past blacksmith (the??)
‘Kofi saw the blacksmith.’

*(Fante Akan, Arkoh and Mathewson 2013, p. 11)*
Problem 3: Not enough labels

(3)  

a. Kua riro [he pukapuka a Mere].
    PST be.taken a?? book of Mere
    ‘A book of Mere’s was taken.’

b. Kua riro [tētahi pukapuka a Mere].
    Kofi see-Past a?? book of Mere
    ‘A book of Mere’s was taken.’

(Maori, Chung and Ladusaw 2003, p. 26-27)
Why not just use texts?

Exclusive use of texts fail to provide sufficient evidence for fine-grained semantic analysis (Mathewson 2004):

1. Lack of negative evidence to show that certain readings are unavailable.
2. Rely on translations of sentences in the target language to the contact language.
3. These translations are often inconsistent.

A different approach

Targeted elicitation with confirmation from textual analysis.
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Section 2

Preliminaries
The first major cut: Strength

Since Milsark (1974), nominal expressions and determiners have been split into the categories of *strong* or *weak*:

**Strong nominals**

(4)  a. *There is the dog in my office.
     b. *There is every dog in my office.

**Weak nominals**

(5)  a. There is *a dog* in my office.
     b. There are *three dogs* in my office.
The second major cut: Function

Additionally, nominals can be split into three basic functions = types of meanings (Partee 1986):

**Function 1: Reference**

(6) The doctor is in the next room.

**Function 2: Quantification**

(7) Every doctor carries a stethoscope.

**Function 3: Predication**

(8) My cousin is a doctor.
Reference to individuals

- Referential NPs pick out individuals or groups.
- Stably referential NPs include:
  - Proper names
  - Pronouns
  - Demonstrative descriptions

(9) ‘John’ = •John
    ‘she’ = •woman-I-am-talking-about
    ‘those dogs’ = •dog-1 + •dog-2 + •dog-3
A predicate characterizes individuals or groups on the basis of a shared property; Predicates can be modeled as functions from individuals to a truth value (true or false?)

Predicational NPs in English include:

- Bare plurals
- A(n) N

\[(10) \text{‘is a dog’} = \bullet \text{Fido} \rightarrow \text{YES!} \]
\[\bullet \text{Spot} \rightarrow \text{YES!} \]
\[\bullet \text{my computer} \rightarrow \text{NO!} \]

\[\text{‘are dogs’} = \bullet \text{Fido} + \bullet \text{Spot} \rightarrow \text{YES!} \]
\[\bullet \text{Fido} + \bullet \text{my computer} \rightarrow \text{NO!} \]
Quantification: Relating two sets

- Quantifiers (‘all’, ‘every’) characterize the relationship between two predicates.
- Quantification has three parts:

(11) a. Determiner restriction scope

b. All dogs bark

c. Most dogs bite
Some dogs bite.

Spot, a dog that doesn’t bite.

Flipper, who bites but is not a dog.
`Most dogs bite`

`dogs`  `biters`
`All dogs bite’
One kind of noun phrase or determiner can have more than one meaning:

(12)  

a. A dog is sitting in my office. \(\rightarrow\) Referential function  
b. Fido is a dog. \(\rightarrow\) Predicative function  
c. There isn’t a dog in sight. \(\rightarrow\) Quantificational function  

This polysemy pattern is especially common, almost characteristic, for indefinites.
Four basic categories for argumental NPs

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- **Predication** is not a function for argumental NPs because the NP itself is the predicate.
- However, *incorporated objects* are often analyzed with predicational meanings.
## Two basic tests for argumental noun phrases

<table>
<thead>
<tr>
<th>Question 1: Strength</th>
<th>Is this morpheme / construction / article weak or strong?</th>
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<tr>
<td>Question 2: Function</td>
<td>Is this morpheme / construction / article used for quantification, predication, or reference?</td>
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Section 3

Strength
(14) **Strong nominal expressions (in English)**

a. *There is every / the dog in my office.
b. *There are most / all / both / each / the dogs in my office.

(15) **Weak nominal expressions (in English)**

a. There is a / some / one dog in my office.
b. There are some / several / a few / lots of dogs in my office.
c. There are dogs in my office.

**Exception 1** Some ‘strong/specific indefinites’ may come out as strong:

(16) *Er zijn sommige eenhoorns in dit bos.  
there are some unicorns in this forest

**Exception 2** Proximal demonstratives can often be used to introduce new information:

(17) There’s this dog in my office.
**A research question: Modification in Thai**

<table>
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<th>Bare nominal modification</th>
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<tr>
<td>(18) mañ [RC thîi kàt dèk ]</td>
</tr>
<tr>
<td>dog REL bite child</td>
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<td>‘a/the dog(s) that bite children’</td>
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<tr>
<th>Classifier-modifier construction</th>
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<td>(19) mañ tua [RC thîi kàt dèk ]</td>
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<tr>
<td>dog CLF REL bite child</td>
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- Numeral classifiers can occur in indefinite and plural noun phrases.
- Thai lacks a definite article, and both types of modification can be definite.
- **Our research question:** What is the interpretation of noun phrases with the two types of modification above?
If a construction shows a weak vs. strong contrast, it is sometimes said to show a **definiteness effect**.

The Existential/Presentational Construction

(20)  
(a) X exists.  
(b) Have X.  
(c) There is an X.

- If possible in X, an expression is WEAK.  
- If impossible or strange in X, an expression is STRONG.
Testing for strength:

- **WEAK → INDEFINITE** (but: **INDEFINITE → WEAK**)
- (In fact, all ‘strong’ indefinites I know of are referential/specific indefinites.)

**Sluicing (a test for indefiniteness)**

(21)

a. Somebody got bit by the dog, but I’m not sure who.
b. Three children got bit by the dog. I’m not sure which ones.

(22)

a. *The child got bit by the dog, but I’m not sure who.
b. *All the children got bit by the dog, but I’m not sure who.

**Confirming indefiniteness with texts**

Indefinites will be used at the **beginning** of tests, to introduce **new** characters and places.

(23) Once upon a time, X lived in a house in the woods.
Weak vs. strong across languages

The weak vs. strong contrast is typologically robust.
Weak vs. strong in Chamorro

Chamorro (Oceanic: Guam) has an ‘existence’ predicate that exhibits a definiteness effect:

(24) Weak nominals in Chamorro (Chung 1987:199)

a. Guäha pälu famalao’an man-malangu
   INFL:S-exist some women INFL:P-sick
   ‘There were some women who were sick.’

b. Guäha tres buteya gi hälum kahun áis
   INFL:S-exist three bottles inside box ice
   ‘There are three bottles in the icebox.’

(25) Strong nominals in Chamorro (Chung 1987:199)

a. *Guäha todu ha’ man-malangu
   INFL:S-exist all Emp INFL:P-sick
   (There was everyone sick)

b. *Guäha i kätni gi hälum kahun áis
   INFL:S-exist the meat inside box ice
   (There’s the meat in the icebox)
Thai (Kra-Dai: Thailand) uses the predicate meaning ‘have’ for existential sentences, which shows a definiteness effect:

(26) Weak nominals in Thai

a. Mii ̀măa láay ́ tua nai s̀uan.
   have dog several CLF in park
   ‘There were several dogs in the park.’

b. Mii ̀măa tua niŋ  nai s̀uan.
   have dog CLF INDF in park
   ‘There was a dog in the park.’

(27) Strong nominals in Thai

a. *Mii ̀măa thúk ́ tua nai s̀uan.
   have dog every CLF in park
   (There was every dog in the park.)

b. *Mii ̀măa tua nán  nai s̀uan.
   have dog CLF that in park
   (There was that dog in the park.)
We can now test the strength of the two types of modification in Thai:

**Testing the strength of bare nominal modification in Thai**

(28)  
\[
\text{mii māa [thī̀ kàt dèk] nai sūan}  \\
\text{have dog REL bite child in park}  \\
\text{‘There are dogs that bite children in the park.’}
\]

→ Bare nominal modification is **weak**.

**Testing the strength of the classifier-modifier construction in Thai**

(29)  
\[
*\text{mii māa tua [thī̀ kàt dèk] nai sūan}  \\
\text{have dog CLF REL bite child in park}
\]

→ The classifier-modifier construction is **strong**.
Section 4

Reference and Quantification
(30) Four basic categories for argumental NPs

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Reference vs. Quantification

(31) Referential noun phrases (in English)
   a. I saw the / that / a particular boy in my office.
   b. I saw the / those two / three of the boys in my office.

(32) Quantificational noun phrases (in English)
   a. I saw each / every / some boy in my office.
   b. I saw all the / most of the / several boys in my office.

- **Referential** noun phrases pick out a individual or group in the world who is known to the speaker.
- **Quantificational** noun phrases *do not refer* but express a relationship between two predicates.
- Many **indefinites** can be interpreted as either referential or quantificational.
Testing for reference vs. quantification:

Referential and quantificational have different scopal properties, for example, under negation:

Scope relative to negation

(33)  a. I didn’t see X.
   b. I don’t know X

- If X can scope above or below negation, it is QUANTIFICATIONAL.
- If X can only scope above negation, it is REFERENTIAL.
- If X can only scope below negation, it is most likely a WEAK INDEFINITE.
`Every dog doesn’t bite’
EVERY > NOT

‘dogs’

‘not bites’
`Every dog doesn’t bite’

NOT > EVERY

\[\text{‘dogs’} \cap \text{‘biters’} \subseteq \text{‘not bites’}\]
Quantifiers: Variable scope

(34) I didn't see all the dogs.
   a. ?all > not: All the dogs are such that I didn’t see them. = I saw none.
   b. not > all: It’s not the case that I saw all the dogs.

- Wide scope interpretation of ‘all’ is marginal because of pragmatic competition from any.
- ‘Logical forms’ for quantifier scopes

(35) [Determiner All [Restriction the dogs] [Scope I didn’t see X]]
(36) Not: [Determiner All [Restriction the dogs] [Scope I saw X]]
(37) I didn’t see a dog.

   a. **a > not**: A certain dog is such that I didn’t see it. (but I saw others!)
   
   b. **not > a**: It’s not the case that I saw a dog. (I didn’t see any!)

Because low scope is available, we can conclude that *a* allows a quantificational reading.
Fixed high scope: Definites and specific indefinites

(38) I didn’t see the dogs.
   a. the > not: The dogs are such that I didn’t see them.
   b. *not > the: I only saw some of the dogs.

(39) I didn’t see some dogs.
   a. some > not: Some dog(s) are such that I didn’t see them.
   b. *not > some: I didn’t see any dogs.

- The is referential, so it must scope above negation.
- Some is weak, but it must scope above negation, so it is a specific indefinite.
Fixed low scope: Weak indefinites

(40) I didn’t see any dogs.
   a. *any > not: Some dogs are such that I didn’t see them.
   b. not > any: I saw no dogs.

(41) I didn’t see dogs.
   a. *dogs > not: Some dogs are such that I didn’t see them.
      (but maybe I saw others!)
   b. not > dogs: I saw no dogs.

▶ Low scope = NOT referential
▶ ‘Any’ scopes below negation because it is a negative-polarity item (NPI).

(42) a. *Any dogs weren’t outside.    → Only low scope!
   b. Dogs weren’t outside.          → Only low scope!

▶ Bare plurals in English have weak indefinite interpretations with obligatory low scope (Carlson 1977).
▶ A caveat: Low scope doesn’t guarantee quantificational meanings. A quantifier should be able to take high scope in at
### Summary of NP interpretations

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<tr>
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<td>Wide scope <em>(some)</em></td>
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- It is possible to see *a(n) N* as either ambiguous or having variable scope.
(43) a. Nít māj hễn māa [thîi kàt dèk] nai sũan. N. NOT see dog(s) REL bite child in park ‘Nit didn’t see dogs that bit children in the park.’

b. exist dogs > neg: There is a child-biting dog such that Nit didn’t see it/ them in the park.

c. neg > exist dogs: It’s not the case that Nit saw child-biting dogs in the park.

- A wide-scope interpretation assumes the existence of child-biting dogs that Nit didn’t see.

- A narrow scope interpretation does not assume the existence of child-biting dog.

A judgment task for testing scope

Describe a situation that only or most clearly matches one of the scope readings, ask for a felicity (appropriateness) judgment of the target sentence in that context.
Testing for the high scope of bare noun modification

Possible scopes of bare nominal modification in Thai

    ‘Nit didn’t see dogs that bit children in the park.’

b. exist dogs > neg: There is a child-biting dog such that Nit didn’t see it/them in the park. → OK!!

c. neg > exist dogs: It’s not the case that Nit saw child-biting dogs in the park.

Testing for high scope

Last week Nit went to the park with his daughter and she saw a dog biting all these children. She’s very worried about taking her daughter to the park this week because of that dog. So, this morning Nit went to the park to see if she could take her daughter, and fortunately, she saw that those mean dogs weren’t there. → Recite (44-a) → Speaker: Yes, that’s fine there.
Testing for the low scope of bare noun modification

Possible scopes of bare nominal modification in Thai

N. NOT see dog(s) REL bite child in  
‘Nit didn’t see dogs that bit children in the park.’

b. exist dogs > neg: There is a child-biting dog such that Nit didn’t see it/them in the park.

c. neg > exist dogs: It’s not the case that Nit saw child-biting dogs in the park. → OK!!

Testing for low scope

Nit is knowledgable about dogs, and knows that many dogs bite children. She wants to take her child to a park that she has never been to but needs to check whether there are any dogs that bit children at the park before she takes her daughter there. Fortunately, when she went to the park, she only saw harmless little dogs. → Recite (45-a) → Speaker: Yes, that’s fine there.
Introduction

Preliminaries

Strength

Reference and Quantification

Definiteness

Quantification

Predication

Conclusion

Conclusion: The scope of bare nominal modification

The actual scope of bare nominal modification in Thai

(46)  

   N. NOT see dog(s) REL bite child in park  
   ‘Nit didn’t see dogs that bit children in the park.’

b. OK: exist dogs > neg: There is a child-biting dog such that Nit didn’t see it/them in the park.

c. OK: neg > exist dogs: It’s not the case that Nit saw child-biting dogs in the park.

► Conclusion: Modified bare nouns in Thai can have either high or low scope.

► In fact, this is because bare nouns in Thai can receive either a definite interpretation or a low-scope indefinite interpretation.
Possible scopes of the classifier-modifier construction

N. NOT see dog(s) CLF REL bite child in park  
‘Nit didn’t see dogs that bit children in the park.’

b. exist dogs > neg: There is a child-biting dog such that Nit didn’t see it/them in the park.

c. neg > exist dogs: It’s not the case that Nit saw child-biting dogs in the park.

- A wide-scope interpretation assumes the existence of child-biting dogs that Nit didn’t see.

- A narrow scope interpretation does not assume the existence of child-biting dog.
Testing the scope of the classifier-modifier construction

Possible scopes of the classifier-modifier construction

(48)  a. Nít màž hến màa tua [thị kát đẻk] nai sǔan. N. NOT see dog(s) CLF REL bite child in park ‘Nit didn’t see dogs that bit children in the park.’

b. exist dogs > neg: There is a child-biting dog such that Nit didn’t see it/them in the park. → OK!!

c. neg > exist dogs: It’s not the case that Nit saw child-biting dogs in the park.

Testing for high scope

Last week Nit went to the park with his daughter and she saw a dog biting all these children. She’s very worried about taking her daughter to the park this week because of that dog. So Nit went to the park to see if she could take her daughter, and fortunately, those mean dogs weren’t there. → Recite (48-a) → Speaker: Yes, that sentence is fine there.
Testing the scope of the classifier-modifier construction

Possible scopes of the classifier-modifier construction

(49)  a. Nít mât henh maa tua [thi k`at d`ek] nai s`uan. N. NOT see dog(s) CLF REL bite child in park ‘Nit didn’t see dogs that bit children in the park.’

b. exist dogs > neg: There is a child-biting dog such that Nit didn’t see it/them in the park.

c. neg > exist dogs: It’s not the case that Nit saw child-biting dogs in the park. —— NO!!

Testing for low scope

Nit is knowledgable about dogs, and knows that many dogs bite children. She wants to take her child to a park that she has never been to but needs to check whether there are any dogs that bit children at the park before she takes her daughter there. Fortunately, when she went to the park, she only saw harmless little dogs. —— Recite (49-a) ——

Speaker: No, that sounds strange.
Conclusion: the scope of the classifier-modifier construction

Scope of the classifier-modifier construction

(50)  

a. Nít mà́n m̀aá tua [thí́i kà́t dè́k] náí sú́uá́n.  
N. NOT see dog(s) CLF REL bite child in park  
‘Nit didn’t see the? dog that bit children in the park.’

b. OK: **exist dogs > neg**: There is a child-biting dog such that Nit didn’t see it/them in the park.

c. **neg > exist dogs**: It’s not the case that Nit saw child-biting dogs in the park.

- The classifier-modifier construction can only take high scope.
- Conclusion: the classifier-modifier construction is referential.
Summary of modification interpretations in Thai

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<tr>
<td>Referential</td>
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</tr>
<tr>
<td>Quantificational</td>
<td>Bare N modification</td>
</tr>
</tbody>
</table>

- So the CMC is Strong + referential = Definite
- Bare nominal modification is weak, and possibly referential or quantificational.
An flowchart for nominal interpretations:

```
My Mysterious NP

Strong
   Hi scope OK
   Lo scope OK
   Strong Q
   Definite

Weak
   Hi scope BAD
   Lo scope OK
   Prob Strong Q
   Weak Q
   Specific Indef.
   Scopeless Indef.
   NPI
```

- **Strong**
  - Hi scope OK
  - Lo scope OK
  - Strong Q
  - Definite

- **Weak**
  - Hi scope BAD
  - Lo scope OK
  - Prob Strong Q
  - Weak Q
  - Specific Indef.
  - Scopeless Indef.
  - NPI
Scopal alternatives...

If negation is problematic... use another scopal operator:

‘Searching’ verbs, especially with indefinites

(51) I’m looking for three dogs.
    a. There are three specific dogs such that I’m looking for them.
    b. I’m looking for any three dogs.

(52) I’m looking for some dog / the dog.

Other quantifiers

(53) Everyone saw one dog.
    a. There is one dog such that everyone saw it.
    b. Everyone saw one (possibly different) dog.

(54) Everyone saw some dog / the dog.
Testing scope with multiple quantifiers

- ‘The Scope Fieldwork Project’, by Benjamin Bruening and students
Every shark attacked some pirate.

i. every shark > some pirate

ii. Every shark is such that it attacked some pirate.

http://udel.edu/~bruening/scopeproject/scopeproject.html
Every shark attacked some pirate.

i. some pirate \(\supset\) every shark

ii. ‘A pirate is such that every shark attacked him.’
Summary of reference and quantification

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- Low scope relative to, e.g. negation provides evidence for a quantificational NP.
- Fixed high scope indicates an NP is referential.
Section 5

Definiteness
What is definiteness?

- Definiteness is crucially *presuppositional*: assumes all interlocutors already know the identity of the referent.
- Not a morphosyntactic feature in all languages.
- According to WALS, 49.6% of the world’s languages have a grammaticalized definite article or affix.
- Yet the semantics of ‘definite’ articles can differ in subtle ways, and even languages without grammaticalized definiteness often show sensitivity to it in their grammar.
Consistency is a test that distinguishes definite noun phrases from demonstratives and indefinites (Löbner 1985).

(55) X is asleep but X is awake.

- Any contradictory predicates can be used.
- This test relies on having a clearly diagnosed conjunction (not disjunction) marker.
- **Warning**: Strong quantifiers can also come out as consistent.
A simple test for definiteness: English

Consistent NPs: True definites and some strong quantifiers

(56)  
a. #The dog is asleep but the dog is awake.  
b. #Most dogs are asleep but most dogs are awake.

- Consistent NPs produce a contradiction in this sentence.

Inconsistent NPs: Indefinites and deictic expressions

(57)  
a. That dog is asleep but that dogs is awake. (while pointing)  
b. Three dogs are asleep and three dogs are awake.

- Inconsistent NPs do not produce a contradiction in this sentence.
Consistency of Thai modification

CMC in Thai is consistent

(58) # [māa tua [thīi kāt dēk] nōn-lāp] suan [māa tua [thīi kāt
dog CLF REL bite child asleep] but dog CLF REL bite
dēk] tōn-léēw]
child awake

Bare modified NPs in Thai are also consistent!

(59) # [māa [thīi kāt dēk] nōn-lāp] suan [māa [thīi kāt dēk]
dog REL bite child asleep] but dog REL bite child
tōn-léēw]
awake

- Both the CMC and bare modifiers allow definite interpretations in Thai.
- Because bare nouns were WEAK, we conclude they must be ambiguous between definite and indefinite interpretations.
Three types of definites

(60) **Three classes of definites** (cf. Schwarz 2009)

<table>
<thead>
<tr>
<th>Licensing by…</th>
<th>Unique?</th>
<th>Anaphoric?</th>
</tr>
</thead>
<tbody>
<tr>
<td>General</td>
<td>general knowledge</td>
<td>Yes</td>
</tr>
<tr>
<td>Specific</td>
<td>pragmatic context</td>
<td>Yes</td>
</tr>
<tr>
<td>Familiar</td>
<td>grammatical context</td>
<td>No</td>
</tr>
</tbody>
</table>

(61) **A definiteness hierarchy?**
Familiar > Specific > General

- Classes farther to the left are more likely to be marked as definite.
- If a class is marked definite, so will all of the classes to its left.
<table>
<thead>
<tr>
<th>General definites</th>
</tr>
</thead>
<tbody>
<tr>
<td>(62) Larger situation definites (Hawkins 1978)</td>
</tr>
<tr>
<td>a. The sun is in the sky.</td>
</tr>
<tr>
<td>b. The chief is chosen by the council of elders.</td>
</tr>
<tr>
<td>(63) Weak definites (Carlson et al. 2006)</td>
</tr>
<tr>
<td>a. I listen to the radio at night.</td>
</tr>
<tr>
<td>b. We need to take Bill to the hospital.</td>
</tr>
</tbody>
</table>

- ‘Larger situation definites’ are licensed by cultural or general knowledge.
- ‘Weak definites’ have interchangeable referents; uniqueness is irrelevant.
Test sentences for specific definites

Specific definites

(64) Specific situation definites (Hawkins 1978)
   a. Don’t wake up the baby!
   b. The car won’t start.

(65) Part-whole bridging (Schwarz 2009)
   a. The car got pulled over because there was no sticker on the license plate.
   b. I need to clean my jacket because I spilled coffee on the lapel.

- Inherently possessed NPs often have different marking.
- Try to avoid animate and human NPs, as those often have different behaviors as well.
Test sentences for familiar definites

Familiar definites: require immediate prior mention

(66) Anaphoric definites (Hawkins 1978)
   a. I saw a reporter talking to you yesterday.
   b. The reporter/That reporter/She was tall and intimidating.

(67) Donkey sentences (‘covarying anaphora’)
   a. If a farmer has a donkey, he beats the donkey / that donkey / it.
   b. Everyone who had a dime put the dime / that dime / it in the meter.

- Avoid cases of contrastive focus, which seem to be slightly different (defaulting to specific definite behavior).
- Again, avoid high animacy/typical referents (man, woman, children).
Definites in texts

(68) **Givenness Hierarchy** (Gundel et al. 1993)
in focus (*it*) > activated (*this, that, this N*) > familiar (*that N*)
> uniquely identifiable (*the N*) > referential (*this N*) > type
identifiable (*a N*)

(69) **Topic Acceptability Scale** (Lambrecht 1994)
active (*most acceptable*) > accessible > unused > brand-new
anchored > brand-new unanchored (*least acceptable*)

> The Givenness Hierarchy clearly subsumes parts of my definiteness
hierarchy above, but purely pragmatic.

> But my definiteness hierarchy unifies semantic and pragmatic
aspects of definiteness.

> *Texts provide important confirmation of definiteness interpretations
and can be sufficient for this purpose.*
More on the three kinds of definites

- Recent work has identified a cross-linguistic distinction between **uniqueness definites** (general + specific) vs. **familiarity definites**.
- In German, this distinction predicts where the definite article can contract with a preposition (Schwarz 2009)
- ‘Weak article’ = contractable = uniqueness definites

\[(70)\] Armstrong flog als erster zum / # zu dem Mond.  
Armstrong flew as.the first to.the / to the moon.  
‘Armstrong was the first one to fly to the moon.’ (Schwarz 2009)

- ‘Strong’ = Familiarity definites do not contract

\[(71)\] Maria hat einen Ornithologen ins Seminar eingeladen. Ich halte # vom / von dem Mann nicht sehr viel.  
Maria has a Ornithologist in.the seminar invited. I think of.the / of the man not very much  
‘Maria invited an ornithologist to the seminar. I don’t think very highly of the man.’ (Schwarz 2009)

- Schwarz (2013): This contrast is typologically robust.
Familiarity vs. uniqueness in Lakhota

Two separate definite articles mark the same contrast in Lakhota (data from Van Valin 2012, reporting his references):

(72)  
  a. Uniqueness definite: ṃowapi ki ‘the book’  
  b. Familiarity definite: ṃowapi k’úŋ ‘the aforementioned book’

(73)  
  a. Ḥetń tókhi étkiya Mnišóše ki Ḥpáya he? from.here where.to toward Missouri theU lie Q  
     ‘Which way is the Missouri River from here?’  
     (Ulrich 2011:372)  
  b. ...héčenaś wičháša k’úŋ ʔ-glá-hiŋ naŋ...  
     nevertheless man theF 3SGA-return-CONT and  
     ‘Nevertheless, the man returned home and....’  
     (Boas & Deloria 1942:160)
‘Bare classifiers’ in Cantonese

Cantonese treats *general definites* (74) differently from *specific* (75) and *familiar definites* (76):

(74)  
Ngo⁵ teng¹-gong² (*go³) zung²-tung² haa⁶ go³ sing¹-kei⁴ wui⁵  
I hear-say CLF president next CLF week will  
heoi³ zung¹-gwok³.  
go China.  
‘I heard that the president is going to visit China next week.’  
(Simpson et al. 2011:181)

(75)  
John waa⁶: gaa³ ce¹ hai⁶ bin¹ aa³?  
John say CLF car be where YNQ  
‘John says: “So, where’s the car?” ’  
(Simpson et al. 2011:181)

(76)
Conclusion: Definiteness

- **Consistency** can be used as a test for definites.
- Definiteness is not a single category, but can be decomposed into several subkinds.
Section 6

Quantification
A little more on quantifiers

- The morphosyntactic distribution of quantifiers
- Two more properties of quantifiers
A-quantification vs. D-quantification (Partee 1995)

- **D(eterminer)-quantification**
  
  (77) Most Texans are tall.

- **A(dverbial)-quantification**
  
  (78) A Texan is always tall.

- Most languages make use of a mix of A-quantifiers and D-quantifiers.
Some languages, e.g. Straits Salish, have been claimed to lack *D-quantification* (Jelinek 1995):

\[(79)\] \[\text{mək}'w = \{ 'əw', ηa-t-∅ } \text{ cə sčeenəx}'w\]

\text{All}=1p\text{NOM LINK eat-TR-3ABS DET fish}

\begin{enumerate}
\item ‘We ate all the fish’
\item ‘We all ate the fish.’
\item ‘We ate the fish up completely.’
\end{enumerate}

Scope shows that these are truly quantifiers:

\[(80)\] \[\text{əwə}=∅ \text{ s- } 'əw-\text{mək}'w \text{ } 'əw' \text{ p}'əq'\]

\text{NEG-3ABS IRR- LINK-all } \text{ LINK white}

\begin{enumerate}
\item ‘Not all of them are white.’
\item ‘They aren’t all white.’
\end{enumerate}

\[(81)\] \[\text{mək}'w - ∅ \text{ } 'əw } \text{ əwə-s-əw-p}'əq'\]

\text{All-3ABS LINK NEG-IRR-LINK-white}

‘All of them aren’t white.’
Strong quantifiers

- Often occur outside of DP or co-occur with definite articles.
- More often occur as adverbs or verbal particles, as in Mandarin:

(82) Tāmén dōu yīqǐ lái.
they DOU together come
‘All of them came together.’

(Cheng 2009:ex. 2a)
The syntactic distribution of quantifiers

Weak quantifiers

- Often occur inside of definite articles, or form a paradigm with them.
- Are often indistinguishable from adjectives.
- Can themselves function as main predicates, as in Moro (Kordofanian:Sudan):

(83)   jamala  j-oan-á
       PL.campl CL:j-many-ADJ
       ‘The camels are many.’

- This could arguably be a third type of quantifier, a ‘P-quantifier’.
The syntactic distribution of quantifiers

‘Every’ vs. ‘all’

- Distributive quantifiers like ‘every/each’ is often an article or proclitic
- ‘All’ is often an adverb or DP-modifier (Moro again below)

(84)  elő-udjí  g-ass-ó
  every-SG.person  CLg-eat-PRFV
  ‘Everybody ate.’

(85)  lujjí  (ódódó) l-ass-ó  (ódódó)
  PL.person  all  CLg-eat-PRFV  all
  ‘All the people ate.’
Two more properties of quantifiers

1. Quantifiers are often *mobile*, showing *surface scope*.
2. Quantifiers are often *directly negatable*.
Diagnostic 1: Mobility and scopal variability

- Many languages have WYSIWYG scope (Thai, Jenks 2013):

  (86) นักเรียน ทุกวันนี้ มัจเฉาันนิยาายนิวัฒน์นิวิ.
        student every CLF still not read novel CLF this
        ‘Every student hasn’t read this novel.’ (every > not, *not>every)

  (87) นักเรียนนิวิ มัจเฉาันนิยาาทย์ทุก รูวิ.
        student CLF this still not read novel every CLF
        ‘This student hasn’t read every novel.’ (*every > not, not>every)

- But quantifier float in Thai allows the missing readings to appear:

  (88) นักเรียนมัจ เฉาันนิยาานิวัฒน์นิวิทุก.
        student still not read novel CLF this every CLF
        ‘Every student hasn’t read this novel.’ (every > not, not>every)
More on quantifier mobility

- Quantifier float is common but often neglected in descriptive grammars.
- The range of quantifiers that QF applies to varies widely:
  - In Thai, every quantifier is able to float.
  - The most buoyant(?) classifier across lgs. is ‘all.’
- Floated quantifiers show rigid scope:

  (89) a. The students **all** didn’t read the book.  
   b. The students didn’t **all** read the book.

- In Hungarian (Kiss 1994) and Ojibwe (Kathol and Rhodes 1999) quantified NPs occur in a dedicated preverbal position:

  (90)  
  the teacher every question-ACC PREV answered  
  ‘The teacher answered every question.’  (Hungarian; Kiss 1994:60)
Quantifiers, especially universal quantifiers, can sometimes be directly negated in ways that normal noun phrases cannot:

(91) a. Not every student did their homework.
    b. Not all students did their homework.

(92) nákrian may thúk khon ?àan níyaay r̥uŋ níi. student not every CLF still not read novel CLF this
     ‘Not every student read this novel.’

Even if cannot directly attach to quantification, the quantified meaning should be negatable:

(93) a. I didn’t see most students.
    b. *I saw not most students.

This is a variant of the ‘scopal variability’ diagnostic but is more specific: quantifiers should be able to scope under negation.
Section 7

Predication
Languages express predication in many different ways.

- Thai has a dedicated predicational copula:

(94) Láan khóɔŋ phóɔm pen mɔɔ
     cousin POSS 1SG COP:PRED doctor
     ‘My cousin is a doctor.’

(Thai)

- Some languages with rich verbal morphology, such as Straits Salish (Salishan: BC, Canada), attach verbal morphology directly to a conceptually nominal root (96):

(95) qen’qen’ sxʷ
     thief =2SGNOM
     ‘You are a thief’
Predicative noun phrases are typically weak.

- In Moro (Kordofanian: Sudan) the object of the predicative copula -dó exhibits a definiteness effect:

(96)  é-g-a-d-ó  oraŋ
      1SG-CLg-RT-be-PRFV  man
      ‘I am a man.’

(97)  *é-g-a-d-ó  oraŋ íkatiká
      1SG-CLg-RT-be-PRFV  man that
      ‘I am that man.’

(98)  *é-g-a-d-ó  Kuku
      1SG-CLg-RT-be-PRFV  K.
      ‘I am Kuku.’

- Thus, predicative environments can provide useful additional support for the strong vs. weak contrast.
Section 8

Conclusion
**Summary of tests: Strength and indefiniteness**

The Existential/Presentational Construction: Tests for strength

(99)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tr>
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<td></td>
</tr>
<tr>
<td>b.</td>
<td>Have X.</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td>There is an X.</td>
<td></td>
</tr>
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Sluicing: Tests for indefiniteness

(100) X is in my house, but I’m not sure who/what.

In texts

Indefinites will be used at the **beginning** of tests, to introduce **new** characters and places.
Summary of tests: Scope

Scope relative to negation

(101)  
- a. I didn’t see $X$.
- b. I don’t know $X$

Scope relative to other quantifiers

(102)  
- a. Everyone saw $X$.
- b. Everybody knows $X$
**Summary of tests: Definiteness**

### Consistency

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<td>(103)</td>
<td>X is in my house and X isn't in my house.</td>
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### Three classes of definites (cf. Schwarz 2009)

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<tr>
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<td>grammatical context</td>
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</tr>
</tbody>
</table>
Summary of tests: Quantification

Mobility
Quantifiers are mobile, showing surface scope.

Negatability
Quantifiers are often directly negatable.
We know far less about variation in this domain than we do many others.

While challenging, the elicitation and documentation of definiteness and quantification is *doable*, and it is *pressing*.

Thank you!!
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