

Cognitive Status and the Form of Referring Expression

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Outline

- I. Introduction to the Givenness Hierarchy.
- II. Controversial aspects of the Givenness Hierarchy: Philosophy of Language.
- III. Future directions: Psycholinguistics.

I. Introduction to the Givenness Hierarchy

- Gundel, Hedberg and Zacharski. *Language*. 1993, and later work.
- Different determiners and pronominal forms conventionally signal different cognitive statuses (information about location in memory and attention state).

- The Givenness Hierarchy

in focus > activated > familiar > uniquely identifiable > referential > type identifiable

<i>it</i>	<i>this, that,</i>	<i>that N</i>	<i>the N</i>	<i>indefinite</i>	<i>a N</i>
	<i>this N</i>			<i>this N</i>	

- Each status is a necessary and sufficient condition for appropriate use of the forms under it.
- Each status entails all lower statuses. If a referent has a particular status then the form under it or any lower form can be used.

- In Focus

- The addressee can associate with the entity a unique representation that is in the current focus of attention.
- *I couldn't sleep last night. It kept me awake.*

- **Activated**

- The addressee can associate with the entity a unique representation that is in current working memory.
- Includes the speech participants as well as other entities in the immediate discourse context.
- *I couldn't sleep last night. That kept me awake.*

- **Familiar**

- The addressee can associate with the entity a unique representation that is already in memory somewhere, perhaps long-term memory.
- *I couldn't sleep last night. That dog (next door) kept me awake.*

- **Uniquely Identifiable**

- The addressee can associate a unique representation with the entity by the time the noun phrase has been processed.
- The addressee will construct a representation of the referent if he doesn't already have one in memory.
- *I couldn't sleep last night. The dog (next door) kept me awake*

- **Referential**

- The addressee can associate a unique representation with the entity by the time the sentence has been processed,
- The speaker intends to refer to a particular object or objects.
- *I couldn't sleep last night. This dog (next door) kept me awake. (indefinite this).*

- Neil: Well, I'll give you an example what kind of guy Willy is. He said that he had this love affair with this Ukrainian girl, and he was so much in love with her and everything, really identified with her and so on like that. And I said, well where does she come from, what kind of family was she from. He said, I don't know, she didn't speak English and I didn't speak Russian or Ukrainian. (Frederickson transcripts)

- **Type Identifiable**

- The addressee can associate a representation of the type of entity described by the expression.
- *I couldn't sleep last night. A dog kept me awake.*

Chinese

- In focus > Activated > Familiar > Uniquely > Referential > Type Identifiable
- | | | | | |
|----------------------|-------------------|--------------|--------------|-------------------|
| Ø | <i>zhe</i> 'this' | <i>nei</i> N | Identifiable | <i>yi</i> N 'a N' |
| <i>ta</i> 's/he, it' | <i>nei</i> 'that' | <i>zhe</i> N | | Ø N |

- *Ta zai bisai zhong huo jiang.*
He in game during win prize
'He won a prize in a/the game.'

- *Zuotian wanshang wo shui-bu-zhao.*
yesterday evening I sleep-not-achieve.
'I couldn't sleep last night.'

- *Gebi-de nei tiao gou jiao de lihai.*
next.door that CLF dog bark ADV extremely
'The [lit. that] dog next door was barking.'

- Forms to the right can be used for cognitive statuses to the left.

– The man wins this time, and the fish that he selects is a big goldfish which is, at the point when he selects it, hidden in a rocky formation in the tank, and it's impossible for the man conducting the game to get at **the fish** with the net. (goldfish stories)

- √ it, this fish, that fish, the fish

- This is especially true for definite articles in English and for the null determiner in Chinese:

	FOC	ACT	FAM	UID	REF	TID
• English <i>the</i> N	30	95	47	108		
• Chinese \emptyset N	12	17	14	49	2	10

- What explains the choice among forms when necessary conditions for use of more than one form are met?

- Maxim of Quantity (Grice 1975)

Q1: Make your contribution as informative as required (for the current purposes of the exchange)

Q2: Do not make your contribution more informative than is required.

- *I agree with all of what you said.*

I agree with some of what you said. ++> not all.

– Horn 1972: Use of a weaker form implicates negation of stronger form.

- *I'll give you a dollar if you mow the lawn.* ++> iff

I'll give you a dollar if and only if you mow the lawn.

– Atlas & Levinson 1981: Use of a weaker form implicates stronger form when the meaning associated with the stronger form is stereotypical.

- Since cognitive statuses form an implicational scale, we expect Quantity implicatures of both sorts.

Q1

- Use of an indefinite article conversationally implicates that the addressee can't uniquely identify the referent.

- *I met a student before class. A student came to see me after class as well--in fact it was the same student I had seen before.*

- Use of a demonstrative pronoun often implicates by Q1 that the referent is not currently in focus, i.e. it signals a focus shift.

- *Anyway going on back from the kitchen then is a little hallway leading to a window, and across from the kitchen is a big walk-through closet. On the other side of that is another little hallway leading to a window....* (personal letter)

Q2

- With full NPs, signaling identifiability is often enough for their interpretation, and an explicit signal of a more restrictive status is unnecessary.
- Moreover, familiarity is the most frequent reason for identifiability, so Q2 induces the stereotypical interpretation.

- When demonstrative determiners do occur there is often a good reason for conveying the stronger cognitive status information.

- Reminder *that* uses explicitly signal that the referent is familiar.

- Neil: It was quite hot and everybody was just dying in the heat, y'know and... [...]
- Mom: Was that with you and Gary or was it when you were over at Oxford.
- Neil: Oxford, '84. [...] That was when I bought **that tee-shirt, that real light, real light shirt**, y'know.
- Mom: Yeah. (Frederickson transcripts)

II. Controversial aspects of the Givenness Hierarchy: Philosophy of Language.

Potential Criticism

- Indexicals and quantifiers are combined on a single scale:
 - Stanford Encyclopedia of Philosophy:
 - Indexicals are linguistic expressions whose reference shifts from context to context: some paradigm examples are 'I', 'here', 'now', 'today', 'he', 'she', and 'that'. Two speakers who utter a single sentence that contains an indexical may say different things.
 - *it, this, that, this N, that N*
 - In logical languages, quantifier expressions are variable-binding operators. Thus, \exists is the familiar operator such that in a formula $\exists x\phi$, $\exists x$ binds all free occurrences of x in ϕ . It signifies the quantifier 'there exists'.
 - *the N, a N*

- Possible defense:
 - In many contexts these forms seem to be interchangeable.
 - Definite articles evolve out of distal demonstratives historically (e.g. English).

Bach 2008

- S4: *We generally choose the least informative sort of expression whose use will enable the hearer to identify the individual we wish to refer to, but this is not a matter of convention.*
 - “Gundel, Hedberg, and Zacharski (1993)...suggest that different degrees of givenness are not merely associated with but, as a matter of linguistic convention, are encoded by different types of singular terms....The parsimonious alternative to Gundel et al.’s conventionalist view is that the different degrees of givenness associated with different types of singular terms are not encoded at all; rather, the correlation is a by-product of the interaction between semantic information that is encoded by these expressions and general facts about rational communication.”

- But note: different languages map forms onto the Givenness Hierarchy differently,
 - Chinese: *nei* N ‘that N’ only needs to be uniquely identifiable.
 - Russian: *eto* N ‘this N’ only needs to be familiar.
- Recall also that speakers don’t *always* use the descriptively least informative form.

Bach 2004

- Gundel et al use the terms “referring expression” and “referential” wrongly.
 - Point 6: *With a specific use of an indefinite description, one is not referring but merely alluding to something.*
 - “What is distinctive about the *specific* use of an indefinite description is that the speaker communicates that he has a certain individual in mind, but he is not communicating which individual that is—he does not intend you to identify it.”
 - A famous actress will be visiting us today.

- Point 9: *Descriptive ‘reference’ or singling out, is not genuine reference.*

- “Donnellan concedes that there is a kind of reference, reference in a ‘very weak sense’ associated with the attributive use of a definite description...Reference in this very weak sense is too weak to count as genuine reference....”
 - The next president, though probably a man, could be a woman.

Defense of the Givenness Hierarchy

- We think that with specific indefinites, the speaker intends to refer to a particular entity, whether the hearer can identify the particular entity or not.
- We think that with attributive definites, the speaker intends to refer to a particular entity, whoever or whatever fits the description, whether the speaker can identify the particular entity or not.
- This may be a ‘very weak sense’ of ‘reference’, philosophically, but it is the one at work in the grammars of natural languages.

Defense continued: Salish Languages

- Salish languages provide determiner forms that can be characterized as “referential” on the Givenness Hierarchy
- Include (most) of the definite determiner uses of English *the*.
- These determiners are well described in Matthewson 1998.

- Sechelt *te* (masculine) and *le* (feminine)

- Don't encode definiteness in Heim's 1982 sense
- Can be used for brand new as well as familiar entities
- See handout.

- Can be used for all cognitive statuses at least referential:

	FOC	ACT	FAM	UID	REF	TID
Sechelt <i>te/le</i> N	4	5	6	2	7	
English <i>the</i> N	30	95	47	108		
Chinese \emptyset N	12	17	14	49	2	10

- Don't encode specificity in Ludlow & Neale's 1991 sense, where the speaker but not the hearer can identify the entity.

- Context: The speaker has just heard on the telephone that a teacher is coming. The speaker herself does not know who the teacher will be. She reports this information to a colleague.

St'at'imcets:

x^wuz k^wu? ɛ^waš [tí wa? ɕunám-xal]
 going.to QUOT come DET PROG teach-INTR
 OR
 x^wuz k^wu? ɛ^waš [k^wu wa? ɕunám-xal]
 going.to QUOT come DET PROG teach-INTR
 'A teacher is coming.'

- Matthewson: Instead, they indicate an "assertion of existence".

- They contrast with "non-assertion of existence" determiners like Sechelt *še* and St'at'imcets *k^wu*.

- These are neutral with regard to existence.
- But (NH) perhaps tend to implicate non-existence.

- While these forms can be used attributively, they do not have all the uses of English definite determiners.

- Demirdache 1996:
- They lack the "individual concept reading" of English definite descriptions:
 - The president of the United States is powerful.
 - For any time, t, whoever is president at t is powerful at t.

- They lack a temporal interpretation which is independent of the temporal interpretation of the predicate:

- The president of the United States was powerful.
- St'at'imcets: False if the individual who is the president now was powerful at some distinct past time (before he was president).

- Matthewson 1998: They are not quantificational.
- Hedberg: Perhaps in addition to encoding cognitive status, determiner forms encode quantificationality as a separate parameter.

III. Future directions: Psycholinguistics

If anyone has any ideas, please let me know.

THANK YOU

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- Bach, Kent. 2008. On referring and not referring. In *Reference: Interdisciplinary Perspectives*, ed. By Jeanette K. Gundel and Nancy Hedberg, 13-58. New York: Oxford University Press.
- Bach, Kent. 2004. Descriptions: Points of reference. In A. Bezuidenhout and M. Reimer (eds.), *Descriptions and Beyond*, 189-229. Oxford: Clarendon Press.
- Demirdache, Hamida. 1996. 'The chief of the United States' sentences in Si'at'mceets (Lillooet Salish): A cross-linguistic asymmetry in the temporal interpretation of noun phrases. *Papers for the 31st international conference on Salish and neighboring languages*. 79-100. Vancouver: University of British Columbia.
- Grice, H.P. 1975. Logic and conversation. *Speech Acts [Syntax and Semantics 3]*, edited by P. Cole and J. Morgan, 41-58. New York: Academic Press.
- Gundel, Jeanette K., Nancy Hedberg and Ron Zacharski. 1993. Cognitive status and the form of referring expression in discourse. *Language* 69, 274-307.
- Heim, Irene. 1982. The semantics of definite and indefinite noun phrases. PhD dissertation, University of Massachusetts at Amherst.
- Ludlow, Peter and Stephen Neale. 1991. Indefinite descriptions: In defense of Russell. *Linguistics and Philosophy* 14, 171-202.
- Matthewson, Lisa. 1998. Determiner systems and quantificational strategies: Evidence from Salish. *The Hague: Holland Academic Graphics*.