

# Bridging Demonstratives at the Semantics-Pragmatics Interface\*

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## 1 Introduction

### 1.1 Setting the Stage

- Demonstrative descriptions (e.g. *that person*), like proper names, seem to be purely referential expressions.
- (1) # [Pointing at John] If John and Mary switched places, *that person* would be a woman.
  - (2) ? [Pointing at John] If John and Mary switched places, *the person I'm pointing at* would be a woman.
  - (3) [Pointing at John] If John and Mary switched places, *the person I would be pointing at* would be a woman.
- My ongoing work pursues the idea that demonstrative descriptions are much more similar to definite descriptions than previous research would suggest.
  - The licensing of demonstratives by bridging inferences supports this view.

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## 1.2 The Puzzle

Definite descriptions may be licensed by *bridging inferences*, or indirect reasoning about the domain of discourse:

- (4) A car drove by. *The horn* was honking.  
(the horn of the car that drove by)
- (5) John attended a wedding yesterday. *The bride* wore blue.  
(the bride at the wedding that John attended)
- (6) It rained all day. *The clouds* were black.  
(the clouds that produced the rain)

### Terminology

- (7) Bridging inferences (Clark and Haviland 1977)
- (8) Associative anaphora (Hawkins 1978)
- (9) (Noncontaining) Inferrable noun phrases (Prince 1981)
- (10) Indirect anaphora (Erk  and Gundel 1987)

Corresponding demonstrative descriptions tend to be unacceptable:

- (11) ?? A car drove by. *This/That horn* was honking.
- (12) ?? John attended a wedding yesterday. *That bride* wore blue.
- (13) ?? It rained all day. *These/Those clouds* were black.

... leading to claims in the literature that demonstratives are not licensed by bridging inferences:

- (14) "In general, pronouns and demonstrative expressions obey more restrictive pragmatic conditions and require actual physical perception of entities in the world or explicit textual mention of entities." (Hawkins 1991:414)
- (15) "An interesting property of inferrables is that they typically do not allow reference ... with a demonstrative determiner." (Gundel et al. 1993:281)
- (16) "When the bridging definite is replaced by a demonstrative, the discourse is infelicitous..." (Robinson 2005:75)

However, in contrastive contexts, demonstrative descriptions *are* licensed by bridging inferences:

- (17) Gentian jerked the plug out of the drain and climbed out of the tub. [The cat] leapt into the sink and began biting at *that plug*.<sup>1</sup>
- (18) A car drove by. The horn was honking. Then another car drove by. *That horn* was honking even louder.
- (19) John attended a wedding yesterday. The bride wore blue. He also attended a wedding today. *That bride* wore white.

#### *Terms of Convenience*

- (20) *Bridging demonstrative*: A demonstrative description (*this/that/these/those* NP) which is licensed by a bridging inference
- (21) *Bridging definite*: A definite description (*the* NP) which is licensed by a bridging inference

### 1.3 Questions

1. Where and why are definite descriptions licensed by bridging inferences?
2. Why are demonstrative descriptions licensed by bridging inferences in contrastive contexts?
3. Why aren't they licensed by bridging inferences in noncontrastive contexts?
4. What do bridging definites and bridging demonstratives tell us about the meaning of definite and demonstrative determiners?

### 1.4 Preview

*Bottom line*: If the right assumptions are made about determiner meanings, the observed pattern of licensing by bridging inferences is expected.

Two familiar assumptions:

- Bridging: inferences about the contents of a domain of discourse
- Definite descriptions: require uniqueness

<sup>1</sup>Pamela Dean, *Juniper, Gentian and Rosemary*, Tor, 1998: p. 300.

Two newer assumptions:

- Demonstrative descriptions: require uniqueness relative to a shifted domain
- Explicit contrast: supports domain shift

## 2 Bridging Definites

### 2.1 Wide-Scope Bridging Definites

Bridging definites denote uniquely (or maximally, in the case of plurals) relative to the discourse context:

- (22) a. ?? I opened the book. *The page* fell out.  
b. I opened the book. *A page* fell out.  
c. I opened the book. *The pages* fell out.
- (23) a. ?? I visited two houses. *The roof* had a leak.  
b. I visited a house. *The roof* had a leak.
- (24) a. ?? I can't ride this bicycle because *the wheel* is flat.  
b. I can't ride this unicycle because *the wheel* is flat.

Ordinary definite descriptions also denote uniquely relative to the discourse context:

- (25) a. The ceiling is about to collapse.  
b. ?? The chair is about to collapse. [In a room with more than one chair]
- (26) a. A man and a woman entered from stage left. The woman was carrying flowers.  
b. ?? A woman entered from stage left. Another woman entered from stage right. The woman was carrying flowers. (Roberts 2003)

A bridging inference often involves an indirect link to a nominal antecedent, but it need not:

- (27) It rained all day. *The clouds* were black.
- (28) Karen took the train to Rome yesterday. *The trip* took 3 hours. (Erk and Gundel 1987: ex. (8))
- (29) They gave some of the meat away. *The act* may seem trifling from a human standpoint. (Erk and Gundel 1987: ex. (9))
- (30) I dropped ten marbles and found nine. *The missing marble* is probably under the couch. (cf. Heim 1982)

## 2.2 Narrow-Scope Bridging Definites

Bridging definites may take narrow scope provided that they satisfy “uniqueness under quantification” (Kadmon 1987):

- (31) a. Every wedding causes *the mother of the bride* to cry.  
b. ?? Every wedding causes *the guest* to cry.
- (32) a. Whenever I go to a wedding, *the mother of the bride* cries.  
b. ?? Whenever I go to a wedding, *the guest* cries.
- (33) a. If someone rides a unicycle across that broken glass, *the wheel* will go flat.  
b. ?? If someone rides a bicycle across that broken glass, *the wheel* will go flat.

Ordinary definite descriptions may also take narrow scope just in case they satisfy uniqueness under quantification:

- (34) a. Every linguist who brought a spouse to the conference met the spouse for dinner.  
b. ?? Every linguist who brought their children to the conference met the child for dinner.
- (35) a. Whenever I see a man and a woman together on the bus, the woman is reading a novel.  
b. ?? Whenever I see two students together on a bus, the student is reading a novel.
- (36) a. If a linguist and a nonlinguist go to the talks together, the nonlinguist will be bored.  
b. ?? If two nonlinguists go to the talks together, the nonlinguist will be bored.

## 2.3 Analysis

- Definite descriptions as requiring uniqueness relative to a domain
  - Russell (1905), Kadmon (1987), Roberts (2003), Recanati (2004), among many others
- Implementation
  - Nominal predicate interpreted relative to a situation

- Uniqueness presupposition of definite article: denotation of nominal complement, relative to situation, is a singleton set (see Recanati 2004)
- Narrow-scope definite descriptions have bound situation variables.

Whenever I go to Lyon by train, the conductor is a woman.  
[Every  $s$ : in  $s$ , I go to Lyon by train][ woman( $\iota x$ .conductor( $x$ )( $s$ ))( $s$ )]  
(Recanati 2004:33)

- Wide-scope definite descriptions are relativized (by default) to the situation corresponding to the discourse context.

$\iota x$ .ceiling( $x$ )( $s_0$ )  
 $\iota x$ .chair( $x$ )( $s_0$ )

- Bridging inference: assumption about the contents of a situation
  - If  $s$  contains a car, it contains a horn
  - If  $s$  contains a wedding, it contains a bride
  - If it’s raining in  $s$ , then  $s$  contains rain clouds
- For remarks on what makes certain types of bridging inferences more salient than others, see Erkü and Gundel 1987, Hawkins 1991

*Question #1:* Where and why are bridging definites licensed?

Bridging definites are licensed by inferences that entail uniqueness relative to the situation at which the nominal is evaluated.

## 3 Bridging Demonstratives

### 3.1 Contrastiveness

Bridging demonstratives require contrast:

- (37) A car drove by. The horn was honking. Then another car drove by. *That horn* was honking even louder.
- (38) ?? A car drove by. *That horn* was honking.

Ordinary demonstrative descriptions do not require contrastiveness:

- (39) [In a room with one painting on the wall]  
I like that painting.

- (40) [Holding up a book]  
This book is really interesting.
- (41) [There is one wrench and one screwdriver on the table]  
Pass me that wrench.

Note: When the referent of a demonstrative description is explicitly contrasted with another entity satisfying the description, the demonstrative determiner bears a pitch accent.

### 3.2 Uniqueness

Bridging demonstratives have uniquely identifiable referents:

- (42) a. ?? Robin rode a unicycle over some broken glass, and the wheel went flat. Then Pat drove a car over the same glass, and *that wheel* survived.  
b. Robin drove a car over some broken glass, and one wheel went flat. Then Pat rode a unicycle over the same glass, and *that wheel* survived.

Ordinary demonstratives also have uniquely identifiable referents:

- (43) a. [In an art gallery, staring at the floor]  
??I like that painting.  
b. [In an art gallery, pointing at a painting]  
I like that painting.
- (44) a. ?? Two women walked in. That woman was carrying flowers.  
b. A woman<sub>1</sub> entered from stage left. Another woman<sub>2</sub> entered from stage right. That woman<sub>2</sub> was carrying flowers. (Roberts 2002)

Bridging demonstratives do not require explicit antecedents:

- (45) It rained all day today. The clouds hid the sun completely. It also rained all day yesterday, but those clouds were patchier.
- (46) Karen took the train to Rome last week. The trip took three hours. Yesterday, Karen took the train back to Milan. *That trip* took all day.

### 3.3 Narrow-Scope Bridging Demonstratives

Bridging demonstratives may take narrow scope, provided the referent is uniquely identifiable for any value of other variables:

- (47) a. Every girl received a reading list with sections titled “On Reserve” and “In Bookstore.” Each girl went to the reserve section of the library and read *those books* first.<sup>2</sup>  
b. ?? Every girl received a reading list with sections titled “On Reserve” and “In Bookstore.” Each girl went to the reserve section of the library and read *that book* first.

Ordinary demonstratives also require a type of uniqueness under quantification:

- (48) a. ?? Whenever two dogs entered together, that dog sniffed at everything in the room.  
b. Whenever a dog entered, that dog sniffed at everything in the room.
- (49) a. ?? Mary believes that there are unicorns in her garden. She believes that that unicorn is destroying her lawn.  
b. Mary believes that there is a unicorn in her garden. She believes that that unicorn is destroying her lawn.

### 3.4 Analysis

#### 3.4.1 Previous Accounts

Kaplan’s (1977) direct reference approach

- Demonstratives are interpreted at a pre-propositional level (the *character*).
- Narrow-scope demonstratives cannot be accounted for.

Recent accounts: Demonstrative descriptions as definite descriptions plus . . .

. . . a speaker intention to refer (King 2001)

. . . a possibly abstract speaker demonstration (Roberts 2002)

- Room for demonstratives with narrow scope
- Not designed to account for bridging demonstratives
- Acceptability of bridging demonstratives in contrastive contexts is mysterious

<sup>2</sup>This example is due to Donka Farkas (p.c.).

### 3.4.2 Proposal

Overview of my current approach to demonstratives (Wolter 2005a,b):

- Demonstrative descriptions refer uniquely relative to a shifted domain.
- The nominal complement of a demonstrative description is relativized to a situation that is salient but is not a situation at which a main predicate is evaluated.
- I like that painting:  
 $\lambda s.\text{like}(\text{Spkr}, \lambda x.\text{painting}(x)(s_1))(s)$
- Definite descriptions are less marked than demonstrative descriptions.
- All else being equal, if a definite description can be used, it should be used.

Application to bridging demonstratives:

(50) A car drove by. The horn was honking. Then another car drove by. That/\*The horn was honking even louder.

- Contrast makes salient parallel subparts of the situation corresponding to the discourse context.
- The second *horn* does not denote uniquely relative to the discourse context.
- The second *horn* denotes uniquely relative to one of the parallel subparts of the discourse context.

*Question #2:* Why are bridging demonstratives licensed in contrastive contexts?

- The descriptive content does not denote uniquely relative to the situation corresponding to the discourse context (or relative to a bound situation variable).
- The descriptive content denotes uniquely relative to another salient situation.

(51) A car drove by. The/\*That horn was honking.

- No proper subparts of the discourse context are particularly salient.
- *Horn* denotes uniquely relative to the discourse context.

*Question #3:* Why aren't bridging demonstratives licensed in noncontrastive contexts?

- There is no other salient situation relative to which the descriptive content can be interpreted. Thus the demonstrative determiner is not licensed.
- If the descriptive content denotes uniquely relative to the situation corresponding to the discourse context (or relative to a bound situation variable), then the less marked definite article is preferred.

## 4 Conclusion

- Bridging demonstratives are attested in contrastive contexts.
- The existence of bridging definites and demonstratives is not surprising.
- Bridging inferences provide further support for a uniqueness-based treatment of definite and demonstrative determiners.

*Question #4:* What do bridging definites and bridging demonstratives tell us about the meaning of definite and demonstrative determiners?

- Definite and demonstrative determiners require uniqueness relative to a situation.
- Definite and demonstrative descriptions are relativized to different situations.
- Pragmatic factors influence the contents of the situations.

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