1. Introduction

One common informal characterization of the class of definite noun phrases is that they have uniquely identifiable referents (see, e.g., Gundel et al. 1993, Farkas 2002). For example, (1) below is felicitous in a context of utterance containing exactly one painting and infelicitous if uttered out of the blue and without a speaker demonstration in a context containing more than one painting. In these clear-cut cases, the intuition of “unique identifiability” is easy to grasp, but a precise and fully general characterization of the notion has proved surprisingly elusive.

(1) I like the/that/this painting.

This paper is about making precise the type of unique identifiability that applies to definite noun phrases with descriptive content, namely definite descriptions (e.g. the painting) and demonstrative descriptions (e.g. that painting). The account will build on a popular approach to the interpretation of definite descriptions in which the definite article imposes a Russellian uniqueness condition relative to a contextually restricted domain (Barwise and Perry 1983, Löhner 1985, Roberts 2003, Recanati 2004). On this view, the definite description the painting in (1) is felicitous just in case the denotation of painting relative to the set of contextually relevant entities is a singleton set; the referent of the definite description is uniquely identifiable in virtue of its content having a unique denotation.\footnote{The counterpart of uniqueness in the domain of plurals is maximality. Either uniqueness or maximality can be taken as basic (Abbott to appear).}

At first glance, it seems that this approach to definite descriptions cannot be extended to demonstrative descriptions. After all, demonstrative descriptions are routinely

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used in situations in which their descriptive content does not denote uniquely relative to the context, as shown below:

(2) (pointing at two paintings in succession) I like *the/that/this painting better than *the/that/this painting.

Previous accounts of demonstrative descriptions have therefore taken demonstratives to have access to special means of identifying the referent, such as interpretation at a pre-propositional level (Kaplan 1977) or an extra argument that is saturated with a speaker intention to refer (King 2001) or with a speaker demonstration (Roberts 2002).

In this paper I will argue that, in spite of the contrast in (2), demonstrative descriptions are not fundamentally different from definite descriptions, and that both demonstrative and definite descriptions require uniqueness relative to a restricted domain. My main claim will be that distributional differences between definite and demonstrative descriptions follow from constraints placed by the determiners on the situation parameter of their nominal complements. Definite descriptions, I will argue, are interpreted relative to “default” situations, or those associated with main predicates, while demonstrative descriptions are interpreted relative to other salient situations. I begin by focusing on relatively simple cases, namely definite and demonstrative descriptions with widest scope. In section 3 I address the interpretation of descriptions that take narrow scope in intensional contexts.

If the analysis is on the right track, it shows that determiners may place constraints on the modal anchoring of their nominal complements. Because I connect the modal anchoring of nominal predicates to the (pragmatic) phenomenon of contextual domain restriction, the analysis suggests that there is a tight connection between pragmatics and lexical semantics. The analysis also provides indirect support for a situation-based approach to domain restriction, an approach which is introduced briefly in the next section.

1.1. Implementing Domain Restriction

There are two methods for implementing domain restriction. One is to assume that the denotation of the nominal predicate denoted by the NP is intersected with a contextually salient set, as shown in (3) below (von Fintel 1994). The other is to assume that nominal predicates (like other predicates) are interpreted relative to situations, or parts of possible worlds, as shown in (4) below (Kratzer 2004, Recanati 2004).

(3) the cat: $i_{\text{x}} \cdot \text{cat}(x) \land P(x)$
(4) the cat: $i_{\text{x}} \cdot \text{cat}(x)(s)$

The property-based approach predicts that the interpretation of a nominal predicate may in principle be intersected with any contextually salient property, while the situation-based approach predicts that a nominal predicate may in principle be interpreted with respect to any salient situation. Sometimes the two approaches make the same predictions. For example, suppose the definite description the cat is uttered in a room containing exactly one cat. Then the property-based approach to domain restriction might take the free property variable in (3) to be set to a property such a $\lambda_{\text{x}} \cdot \text{in-context-of-utterance}(x)$. The situation-based
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approach might take the free situation variable in (4) to be set to the situation corresponding to the context of utterance. Clearly, in both cases the denotation of the nominal will be the singleton set containing the cat in the room.

However, the two approaches do not always make identical predictions. Kratzer (2004) points out that the property-based approach overgenerates, incorrectly predicting that properties that are made salient by being explicitly mentioned may be used for domain restriction. In (5-a) below, for example, the property of being a phonologist is explicitly mentioned. The property-based approach predicts that when the discourse is continued in (5-b), the property denoted by linguist can be intersected with the property denoted by phonologist, resulting in the interpretation that most phonologists agree with what Lisa said. but that is not an available interpretation of (5-b).

(5) a. Lisa is a phonologist.
    b. Most linguists would agree with what she said.

This observation provides some initial support for adopting a situation-based approach to domain restriction, as I do for the remainder of this paper. By the end of the paper, we will see that the analysis of definite and demonstrative descriptions is most naturally expressed given a situation-based approach to domain restriction.

2. Wide-Scope Descriptions

Definite and demonstrative descriptions in simple extensional sentences can be used to refer to entities in the context of utterance, to previously mentioned or inferable entities, and to entities that are identifiable in virtue of uniquely satisfying a description. Here I consider how the distribution of these uses can be accounted for in terms of satisfying a condition requiring uniqueness relative to a situation.

2.1. Deixis

When used to refer to an entity in the context of utterance, definite descriptions are felicitous just in case the descriptive content refers uniquely relative to the context of utterance, while demonstrative descriptions are felicitous just in case the descriptive content refers uniquely relative to the situation corresponding to a speaker demonstration or other salient eventuality.

First, recall the obvious fact that demonstratives are sensitive to speaker demonstrations, so that (6) below is felicitous when accompanied by gestures towards two different paintings, while (7) is infelicitous regardless of what gestures the speaker makes.

(6) I like that/this painting but not that/this painting.
(7) *I like the painting but not the painting.

Notice that in these examples, the description painting does not denote uniquely relative to the context of utterance; if deictic definite descriptions are interpreted relative to a situation corresponding to the context of utterance, (7) is correctly predicted to be infelicitous.
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The description *painting does* denote uniquely relative to the situation corresponding to an appropriate speaker demonstration; if demonstrative descriptions are interpreted relative to salient situations other than the discourse context, (6) is correctly predicted to be acceptable just in case the speaker gestures at two different paintings.

Roberts (2002) has observed that deictic demonstrative descriptions are sometimes felicitous without an accompanying demonstration. For example, if we are in a crowded restaurant and one patron is talking loudly on his cell phone, I can complain by uttering (8) but not (9):

(8) That man is annoying.
(9) *The man is annoying.

In this context, again, the descriptive content of *the/that man* denotes uniquely relative to a salient eventuality (the loud conversation) but not relative to the context of utterance.

2.2. Anaphora

Virtually the same descriptive generalizations can be made about anaphoric definite and demonstrative descriptions, except that the relevant domains are related to the discourse context instead of the context of utterance. Examples (10) and (11) below show that anaphoric definite descriptions are felicitous just in case the descriptive content denotes uniquely relative to the discourse context. Anaphoric demonstrative descriptions, on the other hand, are felicitous when the descriptive content denotes uniquely relative to a salient (i.e. recent) proper subpart of the discourse context.

(10) A man and a woman, \(_i\) came in. The/That/This woman, \(_i\) sat down.
(11) a. A woman, \(_i\) entered from stage right. Another woman, \(_j\) entered from stage left.
   b. *The/That/This, \(_j\) woman was carrying flowers. (Roberts 2002)

Anaphoric demonstrative descriptions can also be used to refer to entities that were familiar in a previous conversation, as in (12) below. In this example, as above, the content of the demonstrative description refers uniquely relative to a salient situation that is not identical to the discourse context.

(12) Remember *the/that guy?*

Putting the deictic and anaphoric examples together, the descriptive generalization is that definite descriptions refer uniquely relative to the situation corresponding to the discourse context, while demonstrative descriptions refer uniquely relative to other salient situations. When the discourse is about the physical surroundings of the utterance, then the discourse context will happen to correspond to the context of utterance.

Definite descriptions are not the only noun phrases to be interpreted relative to the situation corresponding to the discourse context: this is also familiar from standard examples of domain restriction in quantificational sentences. For instance, (13) below is likely to be interpreted as a claim about the chairs in the discourse context.

(13) The chairs are empty.
When Robin entered the classroom, every chair was occupied. Furthermore, the situation corresponding to the discourse context is the one situation (other than the entire world of the context) that is guaranteed to be salient at every point in every discourse. So there are some conceptual reasons to think of this situation as a sort of default option. Below we will see that identifying certain situations as defaults does some work for the analysis, but first a brief aside on what bridging inferences tell us about the nature of the situations under consideration.

2.3. Bridging Inferences

Definite and demonstrative descriptions may also be licensed by bridging inferences, or background assumptions about the contents of a domain. It is well known that definite descriptions are licensed by bridging inferences that entail uniqueness relative to the discourse context. For example, (14) below is licensed by the inference that houses have unique roofs and by the mention of a house, while (15) is infelicitous because houses are not normally assumed to have unique windows.

(14) I bought a house. The roof has a leak.
(15) I bought a house. *The window has a leak.

This is exactly what we’d expect to find, given the descriptive generalization about definite descriptions and the uncontroversial assumption that speakers use world knowledge to make inferences about the contents of situations.

It is sometimes asserted in the literature that demonstrative descriptions are not licensed by bridging inferences, due to the unacceptability of examples like (16) below. (See, e.g., Hawkins 1991, Gundel et al. 1993)

(16) I bought a house. *This/*That roof had a leak.

However, demonstrative descriptions are licensed by bridging inferences in contrastive contexts, as demonstrated by the following attested example:

(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.  

Uniqueness plays a role in addition to contrastiveness. In (18) below, for example, the context has the appropriate contrast, but that wheel is not licensed because it is not normally assumed that cars have unique wheels.

(18) 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.

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2Noun phrases licensed by bridging inferences have also been called associative anaphora (Hawkins 1978), inferable noun phrases (Prince 1981) and indirect anaphora (Erkül and Gundel 1987).

3Pamela Dean, Juniper, Gentian and Rosemary, Tor, 1998: p. 300.

4See Wolter (2006) for further discussion of bridging definite and demonstrative descriptions.
On close examination, this complex pattern is exactly what is expected. I have argued that a demonstrative description refers uniquely relative to a salient situation that is not identical to the discourse context. In order for this requirement to be satisfied, there must in fact be a salient situation that is not identical to the discourse context. Let’s assume that explicit contrast supports the establishment of parallel, contrasting subparts of the discourse context. Then we expect demonstrative descriptions to be licensed in contrastive contexts by inferences that entail uniqueness relative to one of the relevant subparts of the context.

2.4. First-Pass Analysis

Putting together what we have seen so far, it appears that demonstrative and definite determiners trigger a uniqueness presupposition, which I implement as a semantic feature shared by these determiners:

\[(19)\] unique: The denotation of the NP complement is a singleton set.

We have seen that definite descriptions are consistently relativized to the situation corresponding to the discourse context; sometimes this situation happens to also correspond to the context of utterance, and sometimes its contents are enriched by bridging inferences. I have suggested that this situation is a sort of default option; let’s now define the notion of a “default” situation.

\[(20)\] default situation (to be revised): The situation corresponding to the discourse context is a default situation.

One might wonder at this point whether there are other default situations. This is an issue that we will return to.

Now, there are at least two ways to account for the difference between definite and demonstrative determiners. One is to attribute one presuppositional feature to the definite article and another to the demonstrative determiners:

\[(21)\] default: The head noun is relativized to a default situation.
\[(22)\] non-default: The head noun is relativized to a non-default situation.

Another possibility is to take the definite article to bear only the feature unique, while demonstrative determiners bear the features unique and non-default. On this second approach, the definite article is less marked than the demonstrative determiners. By the common-sense principle that speakers exploit markedness relations, any definite noun phrase whose descriptive content is relativized to a non-default situation should be marked as with a demonstrative determiner. As a result, definite descriptions will consistently be relativized to default situations, even though their lexical meaning does not require it.

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These two approaches account equally well for the data we have seen so far. The distribution of descriptions whose content necessarily denotes a singleton set provides evidence in favor of the version that appeals to a markedness relation.

### 2.5. Russellian Uniqueness

Noun phrases like (23–25) below, in which the content necessarily denotes a singleton set if it denotes at all, motivated Russell’s (1905) original uniqueness-based treatment of definite descriptions. Demonstrative determiners are normally incompatible with such content.

(23) the/*that/*this center of the universe
(24) the/*that/*this mother of John Smith
(25) the/*that/*this smallest prime number

However, the emotive use of demonstrative descriptions originally described by Lakoff (1974) is compatible with necessarily singleton-denoting content and even with proper names, as shown below. This use suggests solidarity among discourse participants.

(26) That mother of John Smith is quite a woman!
(27) That smallest prime number sure is handy!

As long as Russellian definite descriptions are relativized to situations large enough to contain their referents, they are guaranteed to satisfy the uniqueness condition. Perhaps the most straightforward assumption to make is that definite descriptions may be interpreted relative either to the world of the context or to the situation corresponding to the discourse context. Similar assumptions have been made by, e.g., Hawkins (1991) and Roberts (2003).

(28) default situation (to be revised): The situation corresponding to the discourse context is a default situation. The world of the context is a default situation.

To account for the interaction between demonstrative determiners and singleton-denoting content we need to explain two things: first, why demonstrative determiners are normally incompatible with such content and second, why this restriction is lifted for the emotive use. The answer to the first question follows from the assumption that demonstrative determiners are more marked than the definite article. Descriptions that necessarily denote a singleton set are guaranteed to denote uniquely relative to the world of the context, a default situation. They are therefore compatible with the definite article, and because the definite article is less marked than the demonstrative determiners, it is preferred.

To understand why emotive demonstratives are compatible with semantically unique content, we first need to have some idea of the nature of the emotive layer of meaning. Here is a sketch of the analysis that I defend in greater detail in Wolter (in progress). Let’s assume that the emotive layer indicates that the discourse participants share some salient feelings or information about the referent of the demonstrative; since sharing feelings or information is grounds for experiencing solidarity, this is consistent with Lakoff’s (1974) original observation. Sharing information is a kind of situation. Emotive demonstratives
can then be taken to be interpreted relative to a non-default situation consisting of the
discourse participants, the referent of the demonstrative, and the salient information or
emotions shared by the discourse participants. Relativization to this unusual situation is
required in order to convey the emotive layer; therefore, the usual reasoning about the rela-
tive markedness of definite and demonstrative determiners is irrelevant, and an emotive
demonstrative determiner may be used with a singleton-denoting description.

3. Narrow-Scope Descriptions

Definite and demonstrative descriptions with narrow scope appear to be counterexamples
to the first-pass analysis. A definite description that takes narrow scope under an operator
and covaries with a bound variable clearly does not denote uniquely relative to the world of
the context or the situation of the utterance. In this section I extend the account to definite
and demonstrative descriptions that take narrow scope under intensional operators. (A sim-
ilar account is possible for other narrow-scope descriptions provided that other quantifiers
introduce quantification over situations.) We will see that the main ideas of the first-pass
analysis can be maintained after all. What opaque definite and demonstrative descriptions
add to the picture is a more complete understanding of the nature of default situations.

3.1. Russellian Uniqueness in Intensional Contexts

Definite descriptions with necessarily singleton-denoting content may take narrow scope
under intensional operators provided that they denote uniquely relative to each accessible
world in the domain of the intensional operator. For example, (29) below has a reading on
which the referent of the current president of the US is not George W. Bush, the referent
of the definite description in the actual world, but John Kerry, the referent of the definite
description in a set of accessible worlds.

(29) The current president of the US could have been from Massachusetts.
(30) John believes that the present king of France is wise.

Non-emotive demonstrative descriptions with necessarily singleton-denoting content are
not any more acceptable in opaque contexts than they are in transparent contexts. Further-
more, the emotive use appears to be incompatible with an opaque interpretation.

(31) *That current president of the US could have been from Massachusetts.
(32) *John believes that that president king of France is wise.

This all suggests that a bound world variable is another “default” situation; because the de-
fault situation is guaranteed to provide a unique referent per world for Russellian definites,
the definite article is preferred to demonstrative determiners.6

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6One complication to this story is that demonstrative determiners with singleton-denoting content are
licensed in opaque contexts by postnominal modifiers, as shown below.
3.2. Opaque Anaphora

Anaphoric descriptions with narrow scope under intensional operators point out yet another type of default situation. Example (33) below shows a felicitous opaque definite description whose descriptive content denotes uniquely relative to the subparts of Mary’s belief worlds corresponding to what has been explicitly established in the discourse. Example (34) shows that an opaque definite description which does not denote uniquely relative to the same situations is infelicitous. Both examples show felicitous opaque demonstrative descriptions whose descriptive content denotes uniquely relative to a recently introduced subpart of the situations corresponding to what has been been established about Mary’s beliefs.

(33) Mary believes that a unicorn \(_i\) is in her garden. She thinks that the/that unicorn \(_i\) is destroying her lawn.

(34) Mary believes that a unicorn \(_i\) is in her front garden. She also thinks that another unicorn \(_j\) is in her back yard. She thinks that *the/that \(_j\) unicorn is destroying her lawn.

In other words, just as wide-scope definite descriptions may be relativized to the world of the context, opaque definite descriptions may be relativized to a bound world variable. And just as wide-scope definite descriptions may be relativized to the situation corresponding to the discourse context, opaque definite descriptions may be relativized to situations corresponding to what has been explicitly established about a particular set of accessible worlds. Demonstrative descriptions are consistently relativized to other salient situations than these options. Now, if we simply list all of the default situations we have encountered, the list appears somewhat long and heterogeneous:

(35) default situation (to be revised):
   a. The situation corresponding to the discourse context is a default situation.
   b. The world of the context is a default situation.
   c. A situation variable corresponding to the information that has been established about a bound world variable is a default situation.
   d. A bound world variable is a default situation.
   e. Nothing else is a default situation.

However, on closer examination this list is not arbitrary. Although we have been focusing on the modal parameter of nominal predicates, main predicates (i.e. the predicates denoted by the heads of VP/IP projections) also have a modal parameter. Unlike the situation variable associated with a nominal predicate, the situation variable associated with a main predicate has been argued to be locally bound (Farkas 1997b, Percus 2000). The situation variable of a main predicate that takes scope under some intensional operator is bound by

(i) That presidential candidate who won the 2004 election could have been from Massachusetts.

In Wolter (in progress), I argue postnominal modifiers have this licensing effect because they are modally independent from the head of the demonstrative description (Dayal 1998, 2004), and as such, support the construction of a non-default situation variable which is a proper subpart of the bound world variable.
that intensional operator, while the situation variable of a main predicate with widest scope is anchored to the discourse context. Because it is independently necessary to constrain the situation parameters of main predicates to just the kinds of situations that I have been calling “default” situations, the definition of default situation can be simplified:

(36)  \textit{default situation} (final version): Given a sentence S, an indexed situation variable which is identical to the situation variable associated with a main predicate in S is a default situation for S.

The generalization captured by the final definition of default situations is most naturally stated given a situation-based treatment of domain restriction and thus provides additional support for the situation-based approach.

3.3. Bridging inferences

Finally, let’s test the analysis by considering opaque bridging descriptions. Opaque definite descriptions are predicted to be licensed by bridging inferences that entail uniqueness relative to any value of the bound world variable or any situation corresponding to the established contents of the bound world variable. This is exactly what we find in (37) below: previous context establishes a unique car in each of Mary’s belief-worlds, and the inference that cars have unique horns licenses the opaque definite description \textit{the horn}.

(37)  a. Mary believes that a car is parked outside.
      b. She thinks that \textit{the horn} is honking.

We also expect opaque demonstrative descriptions to be licensed by bridging inferences provided that an appropriate contrast establishes parallel subparts of the value of the bound world variable. This is also the case, as illustrated in (38) below.

(38)  a. Mary believes that a car is parked outside.
      b. She thinks that the horn is honking.
      c. She also believes that another car is parked down the block.
      d. She thinks that \textit{that horn} is honking even louder.

4. Conclusion

In this paper I have argued that demonstrative descriptions, just like definite descriptions, can be analyzed as referring uniquely relative to a contextually restricted domain. I have argued that the difference between definite and demonstrative descriptions is that definite descriptions are relativized to default situations and demonstrative descriptions to non-default situations. One result of the analysis is that definite and demonstrative descriptions are more similar than previous research has suggested.

From the perspective of work on domain restriction, the implications of the analysis are somewhat surprising: determiners can place constraints on how domain restriction takes place. This has not been proposed in the literature before, although recent work on free
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choice (Kadmon and Landman 1993, Kratzer and Shimoyama 2002) has suggested that free-choice items may override the effects of domain restriction.

On the other hand, from the perspective of the theory of determiner meanings more generally, the present analysis is not that surprising after all. A growing body of literature suggests that the role of determiners is to constrain the interpretation of the variables introduced by noun phrases. For example, determiners have been argued to put constraints on nominal temporal anchoring (Musan 1995), on scope (Matthewson 2001), on what operator binds a variable (Kratzer and Shimoyama 2002), and on whether a variable covaries with another bound variable (Farkas 1997a). What the analysis presented in this paper shows us is that determiners can also constrain the modal anchoring of their nominal complements.

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