

# Pronouns and Complex Demonstratives

Eric Swanson

Draft of September 1, 2005

Until recently it was standard to think that all demonstratives are directly referential. This assumption has played important roles in work on perception, reference, mental content, and the nature of propositions. But Jeff King claims that demonstratives with a nominal complement (like ‘that dog’) are quantifiers, largely because there are cases in which the semantic value of such a “complex demonstrative” is not simply an object (2001). Although I agree with King that such cases preclude a directly referential, Kaplanian semantics for complex demonstratives, I will argue that without contentious further assumptions they do not vindicate King’s claim that they are quantifiers. This is because familiar pronouns act like King’s examples of complex demonstratives. Indeed, pronouns and complex demonstratives share behavior that even King overlooks. None of this pronoun behavior shows that pronouns are quantifiers, and similarly none of the analogous demonstrative behavior shows that complex demonstratives are quantifiers.

Pronouns have referential, bound, and E-type uses. Underlined below are two referential pronouns:

- (1) Max wrapped it.
- (2) She is a writer.

Such pronouns pick up their referents from what is salient in the speech context. Here are two bound pronouns (on the most natural readings of the sentences):

- (3) Every boy loves his mother.
- (4) Each printer has paper in it.

Bound pronouns are interpreted like bound variables in predicate logic. Finally, any pronoun that is neither referential nor bound is E-type.<sup>1</sup> Here are some examples:

- (5) Any man who loves a woman should respect her.
- (6) Every girl who deserved it got the prize she wanted.
- (7) Every host bought just one bottle of wine and served it with dessert.<sup>2</sup>

---

<sup>1</sup>The term ‘E-type’ is originally due to Gareth Evans, although he used it more narrowly (see his 1977a and 1977b). I follow contemporary usage throughout.

<sup>2</sup>Example from Heim and Kratzer 1998, 288.

It is helpful to think of such a pronoun as an syntactic complex that properly includes a bound variable. The fact that this variable is bound prevents the E-type pronoun of which it is a part from being referential. But the E-type pronoun cannot be ‘bound,’ either, since if it were bound its meaning would be drastically wrong. For example, if the E-type pronoun in (5) were itself bound, the sentence would mean (something like) “Any man who loves a woman should respect himself”—and this is not what the sentence does mean.

Notice that the pronouns in examples (5) through (7) can be replaced with definite descriptions, with no change of meaning:

- (5') [Any man]<sub>i</sub> who loves a woman should respect the woman he<sub>i</sub> loves.
- (6') [Every girl]<sub>i</sub> who deserved the prize she<sub>i</sub> wanted got the prize she wanted.
- (7') [Every host]<sub>i</sub> bought just one bottle of wine and served the bottle s/he<sub>i</sub> brought with dessert.

The ‘Cooper-style’ analysis of E-type pronouns (after his 1979) takes inspiration from paraphrases of this sort. It associates the semantic value of, for example, ‘the woman he<sub>i</sub> loves’ with the pronoun ‘her’ in (5), and ‘the bottle s/he<sub>i</sub> brought’ with the pronoun ‘it’ in (7). This approach accommodates the differences between E-type pronouns and bound pronouns, and does so without commitment to the claim that some pronouns are quantifiers. Of course, we must say that at least some pronouns have the semantic value of definite descriptions. But definite descriptions may well be non-quantificational.<sup>3</sup>

Referentially used demonstratives are easy to find. For example, we can simply replace the pronouns in sentences (1) and (2) with demonstratives:

- (8) Max wrapped that.
- (9) This woman is a writer.

By contrast, what I will call ‘bound’ demonstratives are fairly esoteric creatures. This should not be surprising, because the familiar pronouns already do most of what bound demonstratives would do if they were more common. But sometimes bound demonstratives serve our needs better than such pronouns. For example, in describing a family reunion I might say

- (10) Every girl talked to the mother of the new baby boy, but every boy talked to that particular boy’s father.

There is a reading of (10) on which it means “Every girl talked to the mother of the new baby boy, and

---

<sup>3</sup>For important criticisms of the standard arguments that definite descriptions are quantifiers, see Heim 1991.

[every boy]<sub>i</sub> talked to his<sub>i</sub> father.” Thus ‘that particular boy,’ on this reading, is a demonstrative that plays the same semantic role as a bound pronoun. Or, in announcing the new fellowship endowed by Professor White, Dean Black might say

(11) Professor White hopes each professor will nominate that professor’s best student.

Again, (11) has a reading on which it means “Professor White hopes [each professor]<sub>i</sub> will nominate [his or her]<sub>i</sub> best student.” Thus we have another demonstrative playing the semantic role of a bound pronoun. (I want to stress that for all I will say here, ‘bound’ demonstratives and bound pronouns may look quite different at the level of logical form.)

Bound demonstratives are helpful in these sentences because the use of a simple bound pronoun instead could be ambiguous in a misleading way. To see why, consider

(12) Every girl talked to the mother of the new baby boy, but every boy talked to his father.

(13) Professor White hopes each professor will nominate her best student.

The pronoun ‘his’ in (12) is easily heard as co-referential with ‘the new baby boy,’ and ‘her’ in (13) is easily heard as co-referential with ‘Professor White.’ To get the intended bound readings, it helps to use a bound demonstrative, as in (10) and (11). More precisely, it helps to use an appropriate bound *complex* demonstrative, because the complex demonstrative’s nominal can resolve the ambiguities that make the straightforward use of a pronoun potentially misleading.

Craige Roberts offers some other examples of demonstratives with what she claims is “a bound variable interpretation” (2002, 92).

(14) On every team there is one player who is not as strong as the rest. That weakest member is the one to play hardest against.<sup>4</sup>

(15) Every dog in my neighborhood, even the meanest, has an owner who thinks that that dog is a sweetie.

As I read it, (14) means “For every team  $t$ , there is a person  $p$  such that  $p$  is on  $t$  and  $p$  is not as strong as the other players on  $t$  and  $\underline{p}$  is the player to play hardest against when playing  $t$ .” As I read (15), it means (disregarding the nonrestrictive relative clause) “For every dog in my neighborhood  $d$ , there is a person  $o$  such that  $o$  owns  $d$  and  $o$  thinks that  $\underline{d}$  is a sweetie.” It may be *possible* to treat the demonstratives

---

<sup>4</sup>Obviously Roberts assumes that intersentential apparent binding is genuine binding.

in (14) and (15) as having “bound variable interpretations.” But the importance of the extra material in these examples suggests that we would need to rule out other treatments—most saliently, Cooper-style treatments—to establish conclusively that these demonstratives play the same semantic role as bound pronouns. My much simpler examples (10) and (11) clearly do show that demonstratives can play the role of bound pronouns. If Roberts’s examples did too, that would be more grist for my mill.

Note that the existence of ‘bound demonstratives’ like those in (10) and (11) does not rule out a quantificational analyses of demonstratives, because it is formally possible to ‘lift’ apparent bound variables to the semantic type of quantifiers. All I am trying to show is that the allegedly probative behavior of demonstratives parallels familiar pronoun behavior. That behavior does not show that pronouns are quantifiers, and the analogous behavior of demonstratives does not show that they are quantifiers.

We have seen that demonstratives resemble pronouns in their referential and bound forms; we will now see that they also resemble E-type pronouns. I will discuss two uses of complex demonstratives that King appeals to—“quantification in” (QI) and “narrow scope” (NS) uses—and argue that these are analogous to familiar E-type uses of pronouns.

Here are King’s examples of QI uses:

- (16) Every father dreads that moment when his oldest child leaves home.
- (17) Most avid snow skiers remember that first black diamond run they attempted to ski. (2001, 10)

These sentences are naturally read as though their subjects bind pronouns within the underlined demonstratives. That is, in (16), ‘every father’ seems to bind ‘his’; and in (17), ‘most avid snow skiers’ seems to bind ‘they.’ These uses of demonstratives obviously act like neither referential nor bound pronouns, for reasons that should be familiar from our discussion of E-type pronouns. They are not referential because ‘his’ and ‘they’ are bound; they are not bound because if they were bound, then (16), for example, would mean (something like) ‘Every father dreads himself.’ But clearly this would not be right.

Although King does not discuss the issue in much depth, simple demonstratives also have QI uses (2001, 144). Suppose we are watching a movie that makes acutely salient the moment when some father’s oldest child leaves home. I could then say

- (18) Every father dreads that.

with the same truth conditional meaning as (16). Likewise, in a situation in which a skier's first black diamond run is acutely salient, I could say

(19) Most avid snow skiers remember that.

with the same truth conditional meaning as (17). There are even sentences in which an E-type pronoun plays a semantic role similar to that played by demonstrative expressions in King's Q1 sentences, though the context must be primed carefully. Consider:

(20) I remember the moment when my oldest child left home. Every father dreads it.

The sentence "Every father dreads it" in (20) has the same truth conditions as (16), and as (18) when uttered in an appropriate context. 'It' in (20) is E-type, because it is neither referential nor bound. And we can generate an E-type pronoun version of (17) in just the same way:

(21) Of course I remember the first black diamond run I attempted to ski. Most avid snow skiers remember it.

Earlier I explained that the Cooper-style analysis of E-type pronouns gives them the semantic value of definite descriptions, and holds that an E-type pronoun has within it what amounts to a covert bindable pronoun. To take an example, recall that this analysis holds that the pronoun 'it' in

(6) Every girl who deserved it got the prize she wanted.

has the semantic value of 'the prize she<sub>i</sub> wanted' in

(6') [Every girl]<sub>i</sub> who deserved the prize she<sub>i</sub> wanted got the prize she wanted.

We can employ this strategy to get the semantic value of 'it' in (20): it is exactly the same as the semantic value of 'the moment when his<sub>i</sub> oldest child leaves home' in the sentence

(22) [Every father]<sub>i</sub> dreads the moment when his<sub>i</sub> oldest child leaves home.

Likewise, of course, for (18). But now we can see our way to a Cooper-style analysis of King's original cases of Q1 demonstratives. We give them just the same semantic value that we gave to the pronoun in (20) and the simple demonstrative in (18). So the semantic value of 'that moment when his<sub>i</sub> oldest child leaves home' in

(16) [Every father]<sub>i</sub> dreads that moment when his<sub>i</sub> oldest child leaves home.

is the same as the semantic value of ‘the moment when his<sub>i</sub> oldest child leaves home’ in (22). Thus QI uses of demonstratives are interchangeable with certain E-type uses of pronouns, and if the Cooper-style analysis works for E-type pronouns, it will also work for QI demonstratives. We can give a Cooper-style analysis of E-type pronouns without holding that they are quantifiers; likewise for demonstratives.

King offers two examples of “narrow scope” (NS) complex demonstratives:

(23) That professor who brought in the biggest grant in each division will be honored.

(24) That senator with the most seniority on each committee is to be consulted. (2001, 10)

The quantifiers ‘each division’ and ‘each committee’ in these sentences have ambiguous scope. Take (23): on one obvious reading, it says that the one professor who brought in the biggest grants in all the divisions will be honored. On the other obvious reading, it says that for each division, the professor who brought in the biggest grant in that division will be honored.

These scope ambiguities do not show that the demonstratives in (23) and (24) are quantifiers. Notice that the scope ambiguities present in (23), for example, are also present in (23’):

(23’) The professor who brought in the biggest grant in each division will be honored.

This scope ambiguity clearly does not show that definite descriptions are quantifiers. And (23’) is effectively a Cooper-style analysis for (23). So it is plausible that the NS behavior of complex demonstratives is analogous to familiar E-type behavior of pronouns. Note that NS and QI uses of complex demonstratives differ simply in virtue of where the quantifier doing the binding is base-generated.<sup>5</sup> In NS uses it is base-generated within the nominal, and can raise to a higher position, and in QI uses it is base-generated outside the nominal. NS demonstratives are quite like E-type pronouns, then, except that the binder is found *within* the pronoun (when it is base generated) and may raise out of the pronoun at LF. At any rate, the key point for my purposes is that the non-quantificational Cooper-style analysis of NS uses gets the facts right. So the existence of NS uses does not show that any demonstratives are quantifiers.

It bears emphasizing that my observations leave King’s negative thesis wholly untouched. Kaplan’s pure directly referential semantics does fail for complex demonstratives, in virtue of failing for their QI

---

<sup>5</sup>King seems to agree (2001, 173–174).

and NS uses, and for the ‘bound’ uses I discussed earlier.<sup>6</sup> All I have tried to show is that the fact that some complex demonstratives are not directly referential does not give us good reason to think they are quantifiers, since familiar bound and E-type pronouns, which are also not directly referential, might not be quantifiers. One way King could respond to this point is by showing that bound and E-type pronouns demand a quantificational treatment. And indeed he has developed an analysis of E-type pronouns on which they are “context dependent quantifiers” (1987, 1991, and forthcoming). (As I suggested earlier, a quantificational analysis could also be given for bound pronouns.) The proper analysis of E-type pronouns remains very controversial, however. King’s assumption that E-type behavior on the part of complex demonstratives shows that they are quantifiers should be at least as controversial.

I have discussed some uses that pronouns and complex demonstratives have in common. Although King gives a number of arguments for his positive thesis that I have not discussed here, I think these parallels lend credibility to the hypothesis that demonstratives are a *kind* of pronoun. If right, this would help explain other important similarities—like the fact that demonstratives and pronouns convey similar pragmatic presuppositions. But if we too hastily treated demonstratives as quantifiers, and held on to the standard assumption that pronouns are not quantifiers, we might well misunderstand such connections.

## References

- Cooper, Robin. 1979. “The Interpretation of Pronouns.” In *Syntax and Semantics 10*, edited by Frank Heny and Helmt S. Schnelle, 61–92. New York: Academic Press.
- Evans, Gareth. 1977a. “Pronouns, Quantifiers, and Relative Clauses (I).” In Evans 1985, 76–152.
- . 1977b. “Pronouns, Quantifiers, and Relative Clauses (II).” In Evans 1985, 153–175.
- . 1985. *Collected Papers*. Edited by John McDowell. Oxford: Oxford University Press.
- Heim, Irene. 1991. “Articles and Definiteness.” Ms., Department of Linguistics and Philosophy, MIT. Originally published in German as “Artikel und Definitheit,” in von Stechow and Wunderlich (eds.) *Semantics: An International Handbook of Contemporary Research*, Berlin: de Gruyter, 1991.
- Heim, Irene, and Angelika Kratzer. 1998. *Semantics in Generative Grammar*. Malden, MA: Blackwell Publishers, Ltd.
- Kaplan, David. 1977. “Demonstratives: An Essay on the Semantics, Logic, Metaphysics, and Epistemology of Demonstratives and Other Indexicals.” In *Themes from Kaplan*, edited by Joseph Almog, John Perry, and Howard Wettstein, 481–563. Oxford: Oxford University Press.

---

<sup>6</sup>Rose Maclaran anticipates this conclusion, partly on the basis of some Q1-like complex demonstratives (1982, 159).

- King, Jeffrey C. 1987. "Pronouns, Descriptions, and the Semantics of Discourse." *Philosophical Studies* 51:341–363.
- . 1991. "Instantial Terms, Anaphora and Arbitrary Objects." *Philosophical Studies* 61:239–265.
- . 2001. *Complex Demonstratives: A Quantificational Account*. Cambridge: MIT Press.
- . Forthcoming. "Context Dependent Quantifiers and Donkey Anaphora." *Canadian Journal of Philosophy*.
- Maclaran, Rose. 1982. "The Semantics and Pragmatics of the English Demonstratives." Ph.D. diss., Cornell University.
- Roberts, Craige. 2002. "Demonstratives as Definites." In *Information Sharing: Reference and Presupposition in Language Generation and Interpretation*, edited by Kees van Deemter and Roger Kibble. Stanford: CSLI Press.