This paper studies the distribution of 'list readings' in questions like who does everyone like? vs. who likes everyone?. More generally, it focuses on the interaction between wh-words and quantified NPs. It is argued that, contrary to widespread belief, the pattern of available readings of constituent questions can be explained as a consequence of Weak Crossover, a well-known property of grammar. In particular, list readings are claimed to be a special case of 'functional readings', rather than arising from quantifying into questions. Functional readings are argued to be encoded in the syntax as doubly indexed traces, which straightforwardly leads to a Crossover account of the absence of list readings in who likes everyone?. Empirical and theoretical consequences of this idea for the syntax and semantics of questions are considered.

1. INTRODUCTION

Questions and quantifiers interact in complex ways. In this paper, I will make some proposals as to the nature of such interactions. The main empirical fact that I will address is the distribution of so-called "list" readings, and in particular, the asymmetry in (1):

(1) a. Who, does everyone like t?
   b. Who, t likes everyone?

These types of questions are widely discussed in the literature,\(^1\) where it has been observed that (1a) admits (at least) two kinds of answers, while (1b) does not. The first kind of answer that (1a) admits is the "single constituent" or "individual" answer, exemplified in (2a). The second kind, the list answer, is illustrated in (2b).

(2) a. Singular Constituent Answer: Professor Smith
   b. List Answer: Bill likes Smith, Sue Jones, . . .

An answer such as (2b) seems inappropriate for questions like (1b).

Let us assume that quantified NPs are assigned scope at Logical Form

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\(^1\) The most extensive and influential proposals on this are May (1985, 1988). Other relevant discussions and proposals can be found in Williams (1988), Lasnik and Saito (1991), and Sloan (1990), among others.
(LF) by adjunction to IP (= S). The main descriptive generalization concerning contrasts such as the one in (1) appears to be that at LF, the trace of the NP has to c-command the trace of the wh-word for a list reading to be possible. Equivalently, we could say that the NP cannot “cross over” the wh-trace. The dominant view of this phenomenon is based on the assumption that list readings derive from quantifying an NP into a question and that there is some constraint that prevents this from happening in structures like (1b). The relevant constraint is the object of considerable debate in the literature. Above, we used the notion of “crossing over” to describe the phenomenon. It is tempting, then, to try to relate the phenomenon at hand to other crossover phenomena. But it is not obvious how to go about this. Strong crossover (which in the Principles and Parameters framework is subsumed under principle C of the binding theory) is clearly irrelevant: the contrast in (1) arises in spite of the fact that wh-word and NP are not coindexed. And weak crossover involves binding of a pronoun, as in the following paradigmatic cases:

(3) a. Who, does [NP, his, mother] love tₙ?  
   a'. For which x, x's mother loves x?  
   b. His, mother loves everybodyₙ  
   b'. For every x, x's mother loves x

The question in (3a), under the indexing given there, should be interpreted as shown in (3a'). This interpretation, however, is unavailable. Similarly, (3b) doesn't have the interpretation (3b'). In both cases, we have (descriptively) a binder (the wh-word in (3a) and the quantified NP in (3b)) that “crosses over” (at S-structure in (3a) and at LF in (3b)) its intended bindee, viz. a pronominal element. However, in (1b) above, there is no overt pronominal element that the quantifier binds: what the quantifier crosses over is just the wh-trace.

In spite of this, I will argue that the contrast in (1) can indeed be viewed as a case of weak crossover, once the semantics of questions is brought into the picture in a proper way. I will not take a stand on how weak

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2 List readings are also associated with multiple wh-questions, such as *Which professor taught which course?*, a topic that will have to be left for another occasion.

3 A classical reference on crossover phenomena is Postal (1971). Typical examples of strong crossover are:

   (i)* he, likes every man,  
   (ii)* he, thinks that every man, is a genius

Here we have an NP coindexed with a pronoun that c-commands it. In contrast, weak crossover (which induces less severe ungrammaticality) concerns NPs coindexed with a non-c-commanding pronoun to their left. Standard examples are provided in (3) in the text.