Sentences like (1) with multiple singular *which*-phrases often give rise to a *pair-list* (PL) and *single-pair* (SP) reading.

(1) Which boy likes which girl?

A complete answer to the PL reading of (1) determines for each boy which girl he likes. A complete answer to the SP reading is about a single boy-girl pair.

We observe that conjoined singular *which*-phrases allow in principle for the PL reading, but that the availability of this reading is dependent on the nature of the predicate: (2a) has a PL reading, while (2b) doesn’t, although there appears to be inter-speaker variation regarding the availability of the PL reading for (2a) (which is confirmed by our pilot experiment).

(2) a. Which syntactician and which semanticist wrote a paper together?  
   b. Which syntactician and which semanticist wrote a paper alone?

The following generalization seems to hold: conjoined singular *which*-phrases have PL readings only if the predicate is collective: collective predicates like *live together, like each other, are married,* etc. give rise to PL readings, while distributive predicates like *are European, like math,* etc. do not. We further note that not all collective predicates give rise to the PL reading; the predicate *to be tennis partners* does not as readily allow a PL reading when compared with (2a). It is not clear at this moment what differentiates the two classes of collective predicates as the distinction does not seem to align with Winter’s (2001, 2002) distinction between ‘set’ and ‘atom’ predicates.

Previous work on PL readings has looked at structures where the two *which*-phrases occupy distinct thematic roles, unlike in our examples. We will argue that none of the standard approaches to PL are capable of deriving the PL reading of (2a).

There are two main approaches. One approach advanced by Dayal (1996) takes (1) to denote a set of functions, with the PL reading being the spell-out of one such function: “for each function $f: \text{BOY} \rightarrow \text{GIRL}$, which $x$ likes $f(x)$?”. The other approach (cf. Hagstrom 1998, Nicolae 2013, Kotek 2014) takes (1) to denote a set of questions: “for each boy $x$, which girl does $x$ like?” A hallmark of these approaches is the asymmetry between the two *which*-phrases: the higher *which*-phrase needs to be exhaustively answered in a complete answer. For (2a), however, such an interpretive asymmetry does not seem to be present.

Another approach might be to analyze (2a) as (3), namely as a question containing a plural *which*-phrase, albeit it is difficult to see how this could be derived compositionally.

(3) Which syntactician-semanticist pairs wrote a paper together?

The problem with such an account is that (3) has a reading that (2) doesn't, namely that the pair Norvin&Martin wrote a paper together with the pair Susi&Jon. In other words, (3) is semantically less stringent on the number requirement, as the answer can include four or more people co-authoring a paper. Thus, the PL reading of (2a) cannot be simply reduced to plurality either.

(489 words)
References