## 8.3.s. Summary

When the word *else* appears as a modifier in a quantifier phrase, it is used to restrict the domain by excluding some previously mentioned object. An existential quantifier phrase modified by it thus claims the existence of a new example.

The same sort of restriction can be used to express a variety of [numerical quantifier phrases]. For example, at least 2 things amounts to something and something else, and at least 3 things amounts to something and something else and something other than those two. Still other numerical claims can be reached by truth-functional compounding—at most n by denying at least n+1 and exactly n by conjoining claims stated with at least n and at most n.

It is also possible to express *Exactly 1 thing is such that (... it ...)* by *Something is such that (... it ... and nothing else does)* or—equivalently, in a way that illustrates, among other things, a principle of contraposition —by *Something is such that (... it ... and it is all that does)*.

Glen Helman 01 Aug 2004