

### 7.1.3. Finding quantifier phrases

The examples of quantifier phrases we have been considering take an especially simple form: a quantifier word modifying a common noun. And these two elements form the core of most quantifier phrases. (Not all, because a sentence like *Lions are carnivores* achieves the same effect as the generalization *Every lion is a carnivore* by using the plural rather than a quantifier word.) Words and phrases other than quantifier words can appear as further modifiers of the common noun in a quantifier phrase; in particular, adjectives, relative clauses, and adjectival prepositional phrases often serve this function. For example, in

*Every large dog in the neighborhood that was outside last night was barking*

the underlined quantifier phrase is the bulk of the sentence. Besides the common noun *dog* and quantifier word *every*, it employs the adjective *large*, the prepositional phrase *in the neighborhood* and the relative clause *that was outside last night* to further specify the claim that is being made.

We encountered a same array of possible modifiers in the case of definite descriptions and the problem of finding the whole of a definite description has an analogue in the case of quantifier phrases. That is, when locating quantifier phrases, we must be on the lookout for modifiers that are part of the phrase. As was the case with definite descriptions, prepositional phrases and relative clauses are especially problematic here since they appear after the common noun. One test that was suggested for definite descriptions is particularly important in the case of quantifier phrases try replacing the phrase you have isolated by the pronoun *it*. Since this pronoun will not accept the modifiers that might be left behind, the result will be ungrammatical if modifiers have been left. Thus the first sentence below is grammatical, but the second and third are not.

*It was barking*

\* *It that was outside last night was barking*

\* *It in the neighborhood that was outside last night was barking*

Since we will make such replacements by pronouns as part of the analysis of a quantifier phrase, this test will be performed as a matter of course.

Of course, some contexts will require *he*, *she*, or the like, and the test

will then be less clear-cut since these pronouns can accept modifiers. What you need to check is whether the pronoun is able to have an earlier antecedent. For example, in *Everyone who hesitates is lost*, replacing *everyone* by *he* gives us the sentence *He who hesitates is lost*, which is not only grammatical but has the same meaning as the original (when *he* is understood generically). But we cannot regard *he* in this context as having an earlier antecedent. In *Sam is indecisive and he who hesitates is lost*, the pronoun *he* must still be used to make a general claim and cannot refer specifically to Sam.

It is also important to avoid slipping between restrictive and non-restrictive relative clauses. For example, *Sam was indecisive and he, who hesitated, was lost* comes close to being grammatical and *he* has *Sam* as its antecedent. But this only works because the relative clause *who hesitated* is non-restrictive here (note the commas), and it is restrictive in *Everyone who hesitated was lost*.

Prepositional phrases present a special problem when quantifier phrases are in predicates since prepositional phrases can have adverbial as well as adjectival roles and a prepositional phrase left behind in the predicate when a quantifier phrase is analyzed need not make the sentence ungrammatical. Sentences can even be ambiguous in this respect. For example, *Larry heard of a new band in Indianapolis* might speak of Indianapolis either as the home of the band or as the place where Larry learned of them. The difference is captured by the following subject-predicate expansions:

*A new band in Indianapolis is such that (Larry heard of it)*  
*A new band is such that (Larry heard of it in Indianapolis)*

The difference can be brought out also by another test suggested in the case of definite descriptions: converting the prepositional phrase into a relative clause. (In the example above, the clause would be *that is in Indianapolis* or *that was in Indianapolis*.) Doing so will force the prepositional phrase to be understood as adjectival and thus show the effect of treating it as part of the quantifier phrase. On the other hand, moving a prepositional phrase to the beginning of the sentence will force to be understood adverbially and thus as not part of the quantifier phrase. The results of these tests are shown for two sentences below.

*Diane studied a stellar object at the edge of the known universe*

expansions *A stellar object at the edge of the known universe is such that (Diane studied it)*  
*A stellar object is such that (Diane studied it at the edge of the known universe)*

conversion to relative clause *Diane studied a stellar object that was at the edge of the known universe*

movement to the front *At the edge of the known universe, Diane studied a stellar object*

*Diane studied a dinosaur in her paleontology class*

expansions *A dinosaur in her paleontology class is such that (Diane studied it)*  
*A dinosaur is such that (Diane studied it in her paleontology class)*

conversion to relative clause *Diane studied a dinosaur that was in her paleontology class*

movement to the front *In her paleontology class, Diane studied a dinosaur*

These should convince you that (outside of science fiction) the prepositional phrase in the first sentence is probably intended to be adjectival and part of the quantifier phrase while the prepositional phrase of the second is most likely to be adverbial and part of the predicate.