Counting banana trees:
Crosslinguistic consequences for the syntax and semantics of classifiers
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There are two components to questions like How many cats are in the room?: a request to count and a restriction on what to count. In non-classifier languages, it seems clear that the quantifier is responsible for the request to count and the noun is responsible for the restriction of what to count. But what about languages where a classifier mediates the relationship between a numeral/quantifier and a noun, as shown with Ch’ol in (1)? Semanticists have long debated whether it is the noun alone that determines the restriction on what to count or whether the classifier makes a significant contribution.

(1) Ch’ol
Jay-ts’ijty ja’as a nhi mesa?
how.many-CLF banana EXT PREP table
‘How many bananas are there?’

There are at least two types of classifiers that mediate the relationship between nouns and quantifical elements: mensural and non-mensural classifiers (a.k.a., sortal classifiers). Non-mensural classifiers, shown in (2), rely on the noun to help determine the natural counting unit for the nominal denotation. Mensual classifiers, in contrast, specify a method for restricting what is counted, usually in terms of a precise or vague unit of measurement, as shown in (3).

(2) ux-tyikil x’ixik
three-CLF people woman
‘three women’

(3) ux-ch’ájk’ ja’
three-CLF drop water
‘three drops of water’

Most semantic theories contend that non-mensural classifiers, unlike their mensural counterparts, do not make a significant semantic contribution in terms of restricting what is counted (although they do play other semantic roles). We argue that non-mensural classifiers matter. Although non-mensural classifiers do not determine what is counted, they influence the interpretations of nouns. We demonstrate that the denotation of the noun depends on other linguistic objects, specifically the presence or absence of certain types of classifiers as shown in (4) and (5) where two different non-mensural classifiers can combine with the same noun.

(4) a. cha’-ts’ijty ja’as
two-CLF banana
‘two bananas’

b. cha’-tyek ja’as
two-CLF banana
‘two banana trees’

(5) a. ux-kojty lukum
three-CLF snake
‘three snakes’

b. ux-xojty lukum
three-CLF snake
‘three coiled snakes’

We hypothesize the existence of a context sensitive interpretation function that can explain how non-mensural classifiers can influence how the noun is interpreted without taking the noun as a syntactic/semantic argument. Importantly, the semantics we propose is compatible with the syntactic structure we present, in which the numeral and classifier together form a constituent which modifies the noun: [[NUM-CLF] NOUN].