ARMENIAN CLASSIFIERS AND NUMBER MARKING

BACKGROUND & BORER (2005): It has long been suspected that classifier languages (Mandarin, Japanese, Korean) lack systematic number marking and that number marking languages (English, French, and German) lack classifiers. Borer (2005) noted that Armenian seems to be a counter-example to this generalization in that it has both a classifier system and number marking, see (1) & (2).

(1) a. shenk-me desar
building–INDEF-SG saw-2s

b. yergu shenk-er desar
two building-INDEF-PL saw-2s

(2) a. yergu had shenk
two CL building

b. *yergu had shenk-er

c. *yergu had shenk-me

(1a) translates as *you saw a building* whereas (1b) translates as *you saw two buildings*: the morpheme *-me* marks singular indefinite and *-er* marks plural indefinite. The NP in (1b) can also be replaced with the classifier construction in (2a). As Borer points out, although Armenian has both classifiers and number marking, both cannot appear within the same NP construction. Note the unacceptability of (2b) and (2c). Borer suggests that this asymmetry within Armenian is due to the fact that the plural or singular marker and the classifier compete for the same morphological position: perhaps a Number Head.

ALTERNATIVE: An alternative explanation for this asymmetry relies on a more semantic analysis. To explain this alternative let us first discuss English before returning to Armenian classifiers. **ENGLISH MEASURE NOUNS:** Measure nouns in English cannot combine with singular count nouns (**two pounds of paperclip*), although they can combine with plural count nouns and mass nouns (*two pounds of paperclips*, *two pounds of steel*). Plural and mass nouns share many semantic properties. Sauerland (2003) has shown that plural nouns, at least in English, include both singular individuals and pluralities (groups of individuals) in their denotation (Contrary to Link 1983 and Chierchia 1998). Thus [[cat]] denotes all the cats and cat groups in a certain context while [[dog]] denotes all the dogs and dog groups. This type of denotation constitutes the complete semilattice associated with the noun. As discussed by Gillon (1996), Link (1983), and Chierchia (1998), mass nouns have very similar denotations. They too denote all the individuals, groups and stuff that are true of the property associated with the noun. The denotation of [[furniture]] contains all the furniture and groups of furniture. Once again such a denotation constitutes the complete semilattice associated with the noun. In contrast, singular count nouns only denote a set of singularities. Given these facts, it is reasonable to describe measure nouns in English as having a requirement that their complements be complete semilattices. (We assume, like Chierchia 1998, that there is very little difference between a complete semilattice and a kind. Thus alternatively, the complement could be required to be a kind. For simplicity we will adopt the former position.) **ARMENIAN CLASSIFIERS:** Armenian classifiers are quite similar to measure nouns in English. For example, the translation of *two kilograms of apples* would be the phrase *yergu kilo xentsor*, where *yergu* means two and *xentsor* means apple. The word for *kilogram* (*kilo*) occupies the same syntactic position as the classifier in (2a). Also, like (2b) and (2c), the addition of number morphology is unacceptable in such

phrases (**yergu kilo xentsor-ner*, **yergu kilo xentsor-me*). The only difference between *had* and *kilo* is that *had* does not contribute much to how individuals are quantified over, rather it simply exploits the complement noun's individuation properties. In English, there are counterparts similar to *had* that seem to pattern syntactically with *pound*: words like *item* and *piece* in phrases such as *pieces/items of furniture* or *pieces of paper*. If Armenian classifiers had the same semantic constraint on the complement of classifiers as English has on measure nouns (namely only complete semilattices) then the fact that singular number marking cannot co-occur with classifiers falls out naturally. Singular nouns denote a set of individual, not a complete semi-lattice. Furthermore, if plural nouns in Armenian are denotationally of a different kind than plural nouns in English, then the fact that plural marking cannot co-occur with classifiers might fall out naturally as well. This is not such an unreasonable hypothesis. In proposals such as Link's (1983) and Chierchia's (1998), the denotation of plural nouns is not a complete semi-lattice. Rather it is a semi-lattice minus the set of individuals (the atoms). As Sauerland (2003) argued, the behaviour of plural nouns in downward entailing contexts makes this view of plurality untenable for English. (In questions such as *Did you see any children yesterday?* and in conditionals such as *If you saw children yesterday please raise your hand*, one answers *yes* and raises their hand even if they only saw one child.) It is possible however, that Link's and Chierchia's denotation for plural nouns correctly characterizes Armenian. The interpretation of Armenian nouns could be as depicted in (4). The bare noun is interpreted as a mass noun, as in (4b). (A mass noun similar to mass nouns like *furniture* in English.) The symbol *c* in (4b) represents the morpheme for count syntax.

(4) a. $[[\text{shenk}]] = \{x: x \text{ is a building or a group of buildings}\}$
b. $[[\text{shenk c}]] = \{x: x \text{ is a building}\}$
c. $[[\text{-er}]] = \lambda P \{X: X \subseteq P \ \& \ |X| > 1\}$
d. $[[(\text{shenk c}) \text{–er}]] = \{X: X \subseteq [[\text{shenk c}]] \ \& \ |X| > 1\}$

The denotation of *shenk-er* as depicted in (4d) is not a complete semilattice. It is a semilattice minus its minimal parts. Such a denotation cannot appear as a complement of a classifier or measure noun.

PREDICTION: If this alternative explanation of why classifiers and number marking cannot co-occur is correct, then there is a natural consequence. Armenian plurals should not behave in the same way as English plurals in downward entailing contexts. Armenian plurals should never allow for reference to singularities. Surprisingly, this prediction is borne out. The sentence in (5a), which asks *do you have children?*, is odd if the speaker wants to know if the person has one or more children. In fact, one could answer *no* to this question even if they have one child.

(5) a. bezdig-ner unis?
child-pl-indef have-2s?
b. jete bezdig-ner uni-s, dun kena.
if child-pl have-2s, home go-2s.

Similarly, the conditional command *if you have children, then go home* given in (5b) implies that you should go home if you have more than one child. Those with only one child need not go home in order to obey the command. **References: Borer**, H. 2005. Structuring Sense. Oxford Press. **Chierchia**, G. 1998. Plurality of mass nouns and the notion of semantic parameter. In Events and Grammar. Kluwer. **Sauerland**, U. 2003. A New Semantics for Number. In: Proceedings of SALT 13, CLC Publications.