

February 28, 2006

## CLASS 10: MORE REFERENCE

### PLURALS

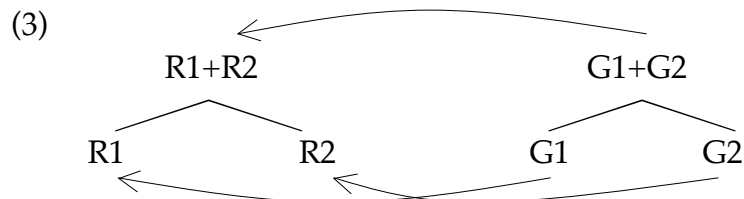
- individual  $\Rightarrow$  sum of individuals
- parts and wholes (atoms, lattices, groups)

- |     |    |                   |                        |  |     |    |         |           |
|-----|----|-------------------|------------------------|--|-----|----|---------|-----------|
| (1) | a. | horse:            | {A, B, C}              |  | (2) | ma | ‘horse’ | (Chinese) |
|     | b. | horses:           | {A+B, B+C, A+C, A+B+C} |  |     |    |         |           |
|     | c. | the horses:       | {A+B+C}                |  |     |    |         |           |
|     | d. | the three horses: | A+B+C                  |  |     |    |         |           |

### MASS TERMS

“The lattice for *gold*, like Chinese *ma*, does not categorize the totality of individuals in the lattice into atomic vs. non-atomic units.” (PHP:98)

- no basic units of mass terms (lattice without atoms)
- combine a mass noun (*gold*) with a count noun (*ring*)



### KINDS

- |     |    |   |                         |
|-----|----|---|-------------------------|
| (4) | a. | Horses are rare.                                | (= as a group)          |
|     | b. | Horses are mammals.                             | (= all)                 |
|     | c. | Horses have tails.                              | (= almost all)          |
|     | d. | Horses give birth to their foals in the spring. | (= many of the females) |
|     | e. | Horses were galloping across the plain.         | (= some)                |

- (5) kinds   objects   stages  
 \_\_\_\_\_  
 individuals

⇒ Bare plurals always refer to kinds—predicates pertain to kinds, objects, or stages.

- (6) a. rare(horses) (= kind)  
 b. mammals(horses) (= kind)  
 c. have-tail(horses) (= object)  
 d. give-birth(horses) (= stage) [when modified as in (4d)]  
 e. gallop(horses) (= stage) [when modified as in (4e)]

- an operator *Gn* (“generic”) shifts from object-level to kind-level

(7) GN(have-tail)(horses)

(8) If we start with an object-level predicate *P*, *Gn(P)* is a new property which is true of a kind *k* if (and only if) *P* is true of typical instances of *k*.

- (9) a. *basic stage-level predicate*  
 galloping-across-the-plain  
 b. *shifted individual-level predicate*  
 “has a stage *x* such that galloping-across-the-plain(*x*)”

- (10) a. Silver was galloping across the plain. ⇒  
 “Silver has a stage *x* such that galloping-across-the-plain(*x*)”  
 b. Horses were galloping across the plain. ⇒  
 “The kind horses has a stage *x* such that *x* is galloping-across-the-plain”

### PRONOUNS AND ANAPHORA

- (11) a. Shelby is cute. He is a Keeshond.  
 b. Shelby met Bucky. He sniffed him.

- saliency? (= context)
- (pronouns as logical) *variables*
- *variable assignment function* (as opposed to context)
- *anaphora*: antecedent (e.g. *Shelby*) — anaphor (e.g. *he*)
- *bound variable pronoun* (a binder turns it into an open position)
- *E-type pronouns* (where the pronoun means ‘the N who/which...’)

(12) He sniffed him.

Context: *he* → Shelby

*him* → Bucky

“A true bound variable pronoun, then, could be thought of as an E-type pronoun which contains a variable and nothing else.” (PHP:110)

- (13) a. Every boy / Only John loves his mother.  
 b. *logical form*: [ [ Every boy ]<sub>*i*</sub> / [ Only John<sub>*i*</sub> ] [ e<sub>*i*</sub> loves his<sub>*i*</sub> mother ] ]

(14) Few politicians admire Kennedy, and they are very junior.

- (15) a. The man who deposited his paycheck in his bank account  
 is wiser than the one who invested it in Enron.  
 b. Everyone who buys a sage plant here buys eight others along with it.