Homework #1 (Implicatures)

A. What implicatures are predicted for the following sentences in a neo-Gricean setting if Sauerland is right about the alternatives for disjunction (and conjunction)?

(1) a. Every student did the reading or the homework.
b. You are required to do the reading or the homework.

(2) a. John didn't eat both the broccoli and the soup.
b. John didn't do both the broccoli and all of the soup.

(3) a. Some boy ate cake or ice-cream.
b. You are allowed to eat cake or ice-cream.

(4) a. John ate cake or ice-cream or both.
b. John ate some or all of the soup.
b. John read 3 or more books.

Any thoughts/conclusions?

B.

Setting the stage

Consider the sentence in (5) under its cumulative interpretation.

(5) The boys ate the apples.

Under this interpretation, the sentence would be true if the boys together (as a group) managed to eat all of the apples. Assume that *the boys* and *the apples* refer to plural individuals: the totality of boys and apples, respectively. Finally, assume that there is an operator *CUM* that can apply to the standard meaning of *eat* yielding a relation between plural individuals (that have singular individuals as parts).

(6) CUM'(eat') = $\lambda X.\lambda Y.$ $\forall x$ (x a singular part of X): $\exists y$(y a singular part of y): x eats y
and
$\forall y$ (y a singular part of Y): $\exists x$(x a singular part of X): x eats y

We can now derive the meaning in (5) straightforwardly.

Assignment

Consider the sentence in (7) under its cumulative interpretation.

(7) 3 boys ate 7 apples.

Under this interpretation, the sentence would be true if some collection of 3 boys each eat a certain amount of apples the sum of which is 7. This interpretation might be paraphrased in the following way.

(8) $\exists X$ [(|X| = 3 & the singular parts of X are boys) & $\exists Y$(|Y| = 7 & the singular parts of Y are apples) & X CUM-ate Y].

If this is a correct paraphrase, do we predict the inference/implicature that it is false that 4 boys ate 8 apples?

Any thoughts/conclusions?