

Classwork N°9  
due to 27th April 2012

Exercise: “Application of combinators to natural language analysis: aspecto-temporal analysis”

1. Derived combinators

We introduce the powers of a combinator  $X^n$  and the deferred combinators  $X_n$ , where the  $X$  is a combinator.

- (a)  $B^2 x y z f$
- (b)  $C^2 B x y z f$
- (c)  $B_3 C C x y z f$
- (d)  $B_3 C_2 C B x y z f$
- (e)  $B^2 (C_2 B) B^2 x y z f g$
- (f)  $B_6 C_3 C_3 C B^2 x y z f g$

2. Introduction of the aspecto-temporal operators.

Give the representation of the following discourses by using the aspecto-temporal operators; STATE(O), EVENT(F), PROC(J), I-SAY.

Dialogue a.

*Yesterday, I went to the animation festival. I passed a great moment there. I met a famous writer. I discussed with him. I bought then his new comic book.*

Dialogue b.

*John arrived late for work. He had taken the bus. He had totaled his car. His boss summoned him to his office.*

(Lascarides and Asher, 1993)

- (1) Give the predicate-argument structure of the sentences
- (2) Define the temporal relations between the sentences and formalize it
- (3) Try to establish the enunciative schemes of the given dialogues