

***Temporal reasoning:  
the interaction of aspectual adverbs and determiners.***

Dynamic Aspect Trees (DAT, ter Meulen 1995/7, ter Meulen & Smessaert 2004, ter Meulen 2006). predict how information given by an English text may be transformed, manipulated or condensed, while preserving its temporal content, based on the notion of ‘chronoscope’. In this talk I will discuss the interaction of determiners and aspectual adverbs, conditional contexts and dialogue. This provides more insights in information sharing between agents, where the presuppositions and focus meaning of aspectual adverbs characterizes which alternatives must be derived within a temporally constrained context.

Weak, downward entailing Determiner Phrases (DPs) with stative predicates modified by positive aspectual adverbs are strongly preferred in English over apparently equivalent strong DPs with negative aspectual adverbs modifying the predicate, cf. (1).

- (1) a. \* Every child was not singing anymore.  
b. No child was still singing.

Since ‘existential contexts’ accept only weak DPs, cf. (2), the existential presuppositions of the aspectual adverbs, projected into the common ground, explain (1).

- (2) a. \* There was every child not singing anymore.  
b. There was no child still singing.

The paraphrases of (1) with the presupposed information in the restrictive relative clauses in (3ab) in perfect tense are unproblematic for either kind DP, showing how projected presuppositions and restrictive relative clauses differ importantly in constraining the context.

- (3) a. Every student who had been singing, was no longer singing.  
b. No student who had been singing, was still singing.

Presuppositions of aspectual adverbs also account for the indexical inferences in (4).

- (4) a. There are [<sub>F</sub> still three] students here.                   => Students are leaving  
b. There are [<sub>F</sub> already three] students here               => Students are coming

With the decreasing *no longer* this inferred information must be added as assumption before conclusions about the number of students in the class can be derived, as there is no future polarity transition within the current context.

- (5) a. There are no longer two students in this class.           =>  
    - if students are leaving => max one student left over in class  
    - if students are coming => more than two students in class  
b. Two students are no longer in this class.

Raising the DP to subject, cf. (5b), makes the DP definite, anaphoric, i.e. not in focus.

Aspectual adverbs modifying weak DPs are constrained in monotonicity, unless blending to a meta-temporal interpretation as counterfactual, cf. (6).

- (6) a. Already/\*still three students have arrived.           => students are on their way  
b. Three students have already/\*still arrived.  
c. Still/\*already three more students have left.       => students are leaving  
d. Three students have still left.

With referential temporal adverbial phrases, aspectual adverbs support temporal and causal inferences, cf. (7), (8), that have much in common with scalar implicatures.

- (7) a. John was already living in NYC before 9/11.  
b. => John was still living in NYC after 9/11.  
c. => 9/11 did not make John leave NYC.

