STRING DIAGRAMS FOR TEXT

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Contents

(Acknowledgements will go in a margin note here.)

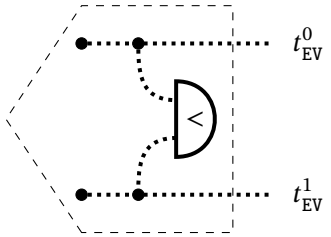
1
Continuous relations for semantics

We want to reason formally with and about pictorial iconic representations, of the sort one might draw to solve a problem in elementary geometry stated in words, involving topological concepts such as `touching` and `inside`. To do this in string diagrams, I introduce and investigate the category of continuous relations, **ContRel**.

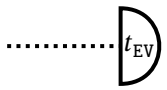
1.0.1 A text-circuit analysis of temporal anaphora

Definition 1.0.1.

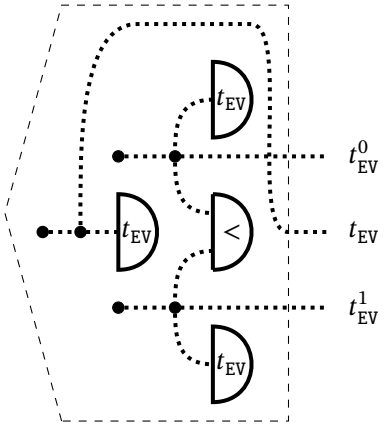
Episodic event
(Interval determined by ordered endpoints)



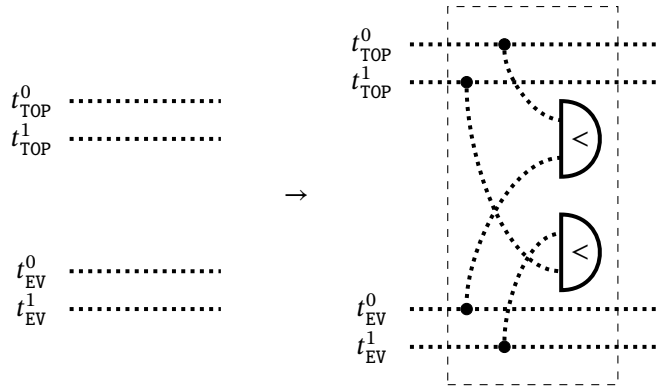
Habitual event (as constraint)
(An arbitrary open set on $[0,1]$)



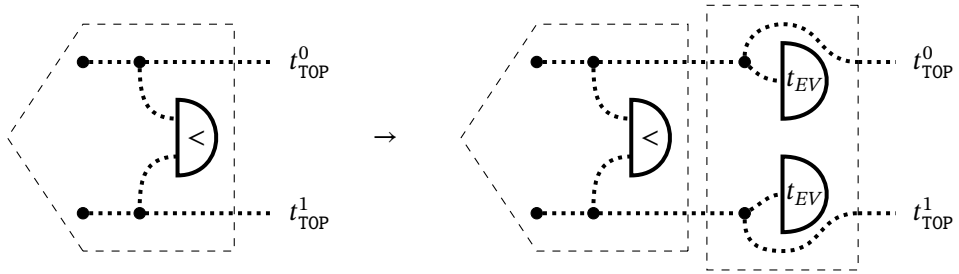
Hybrid event
(Open set with endpoints)



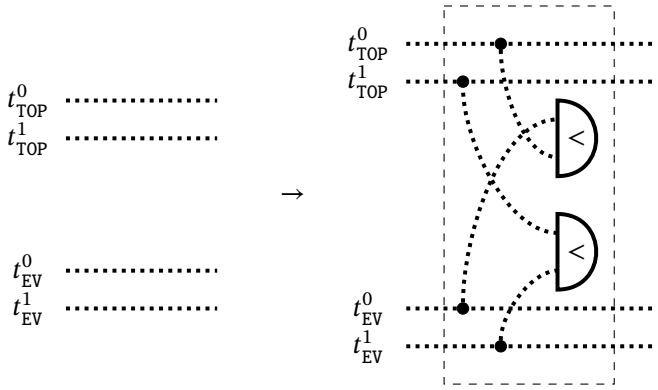
Perfective: $t_{\texttt{EV}} \subseteq t_{\texttt{TOP}}$
(Event time contained within topic time)



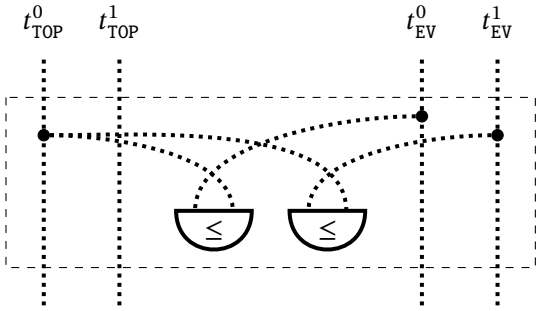
Imperfective: $t_{\texttt{TOP}} \subset t_{\texttt{EV}}$
(Episodic time contained within habitual event time)



Progressive: $t_{\texttt{TOP}} \subset t_{\texttt{EV}}$
(Event is ongoing throughout topic time)



Terminative: $t_{\texttt{EV}} < t^0_{\texttt{TOP}}$
(Event will have been completed by the topic time)



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Bibliography