Parametric Constraints in Channel Theory

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Parametric constraints play a central role in situation semantics, and more generally in situation theoretic account of information flow. In an earlier paper (Yamada & Nomura, 2003), we proposed a channel theoretic treatment of parametric constraints that models events as connections that connect their constituents. For example, a token of kissing is considered as a connection that connects a kisser, a kissee, and a time of kissing. In a more recent paper (Yamada, to appear), we model speech acts as connections that connect their initial situations (situations before they are performed) and their final (or terminal) situations (situations after they are performed). These two ways of thinking of actions may look very different, but it seems we need to be able to view events in both ways.

The purpose of this talk is to examine how both views can be combined in a unified account of actions. For this purpose, we first review the two views of actions mentioned above. And then consider how they can be unified. As this is an on-going work, critical (but friendly) discussions are welcome.