

## SFB/TR 8 Spatial Cognition / IQN Video Conference

### Directionality in Spatial Representations - Results from Spatial Belief Revision Research

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Drawn from the conception that spatial reasoning is based on the construction, inspection, and alteration of spatial mental models I discuss directional properties of such mental models based on the results from spatial belief revision research. Within the framework of belief revision reasoners have to change their beliefs in the light of conflicting information. To carry out a spatial belief revision task reasoners first have to construct a spatial mental model from propositions, which is then inspected to verify new information. Finally, if the new information contradicts the mental model, the model needs to be altered or revised. I report empirical results which show directionality effects in all three processes and present a computational model of spatial representations that can account for these effects.

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