The role of disentanglement in generalisation

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Disentanglement in latent variable models

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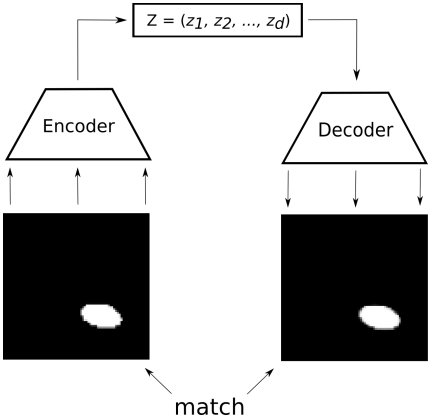

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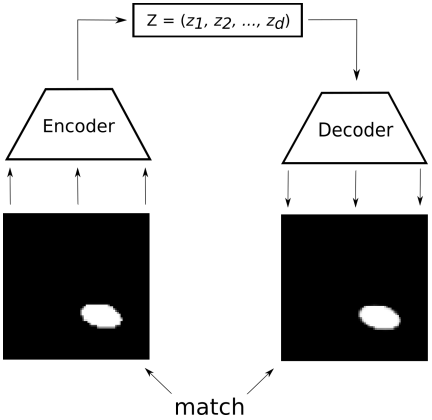
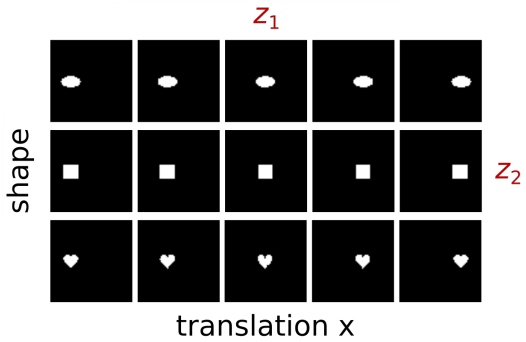
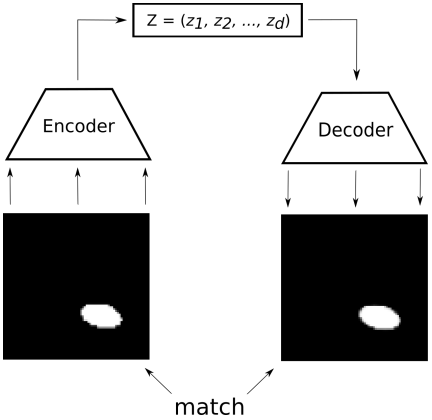


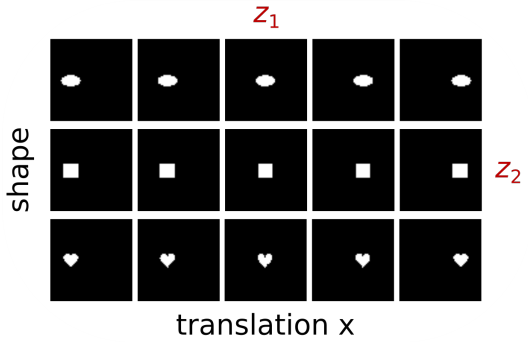


Disentanglement and generalisation

Can disentangled representations support out-of-training-distribution generalisation?

Testing generalisation





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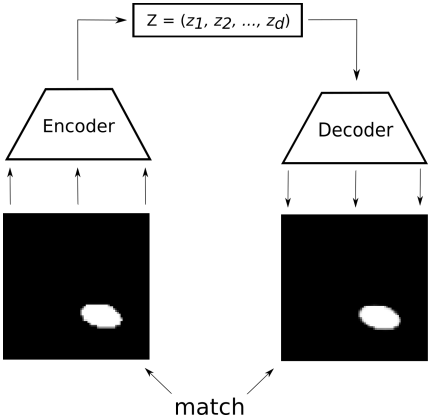

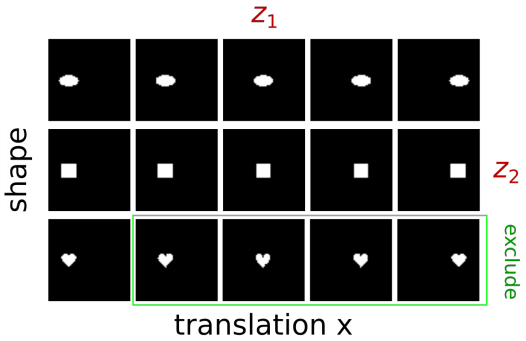

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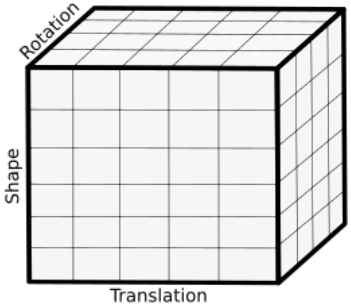

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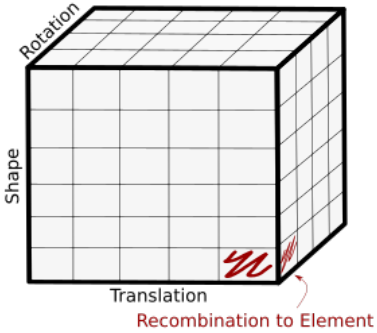

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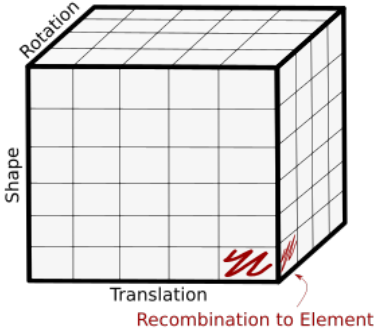

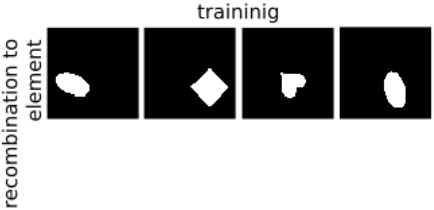

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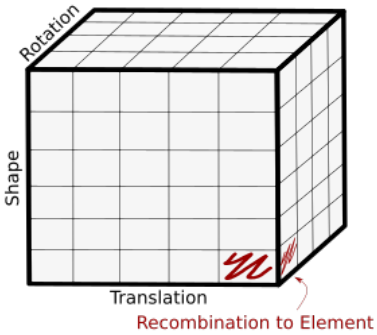

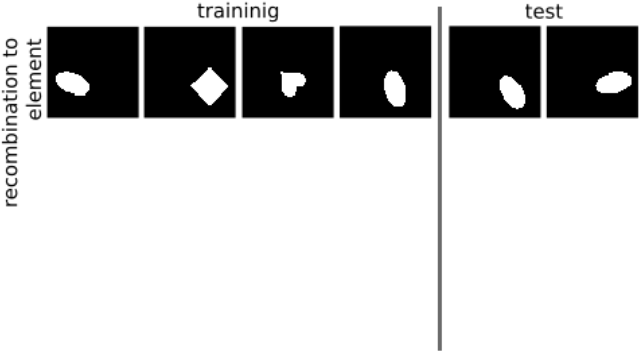

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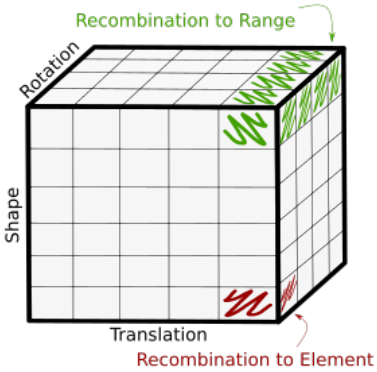

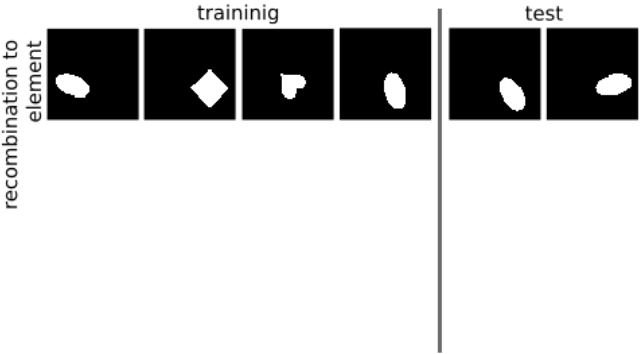

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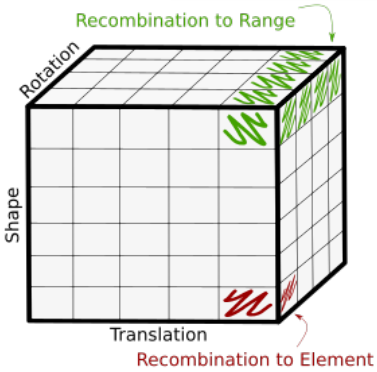

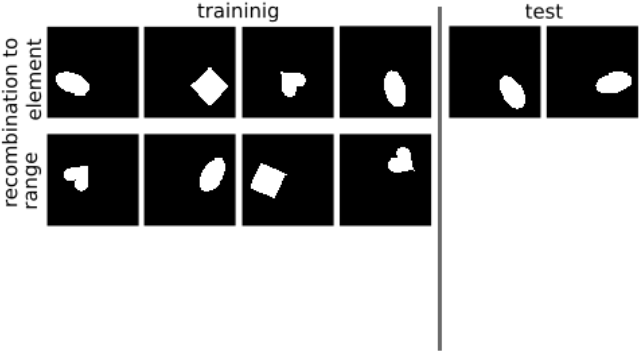

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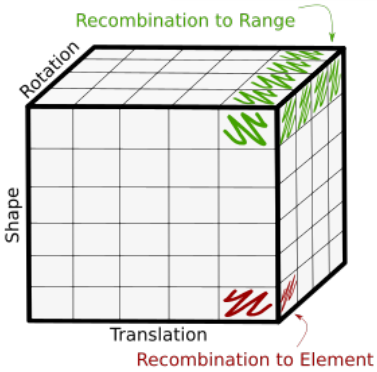

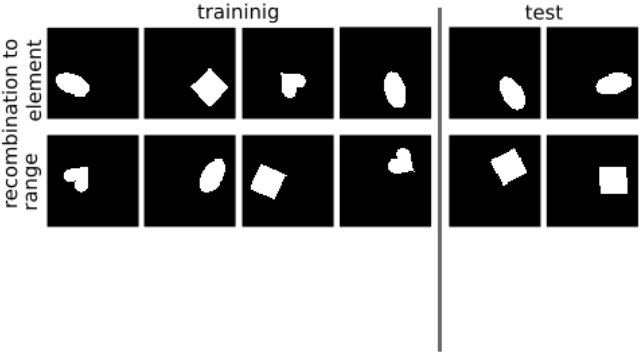

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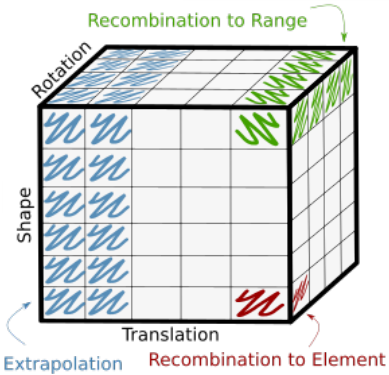

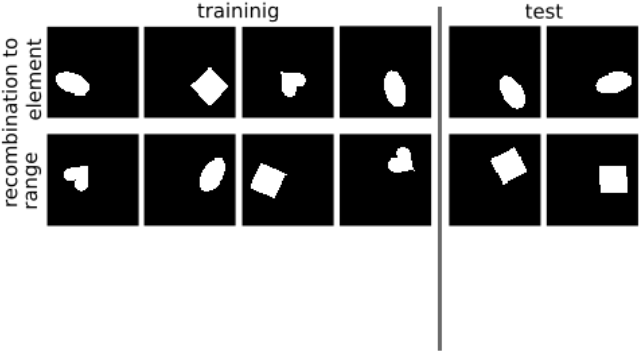

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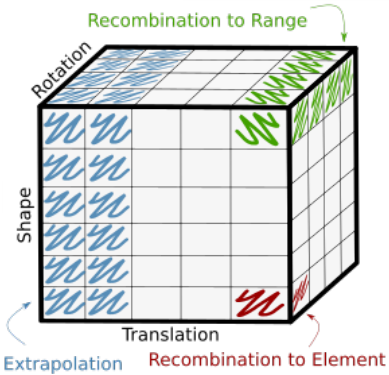

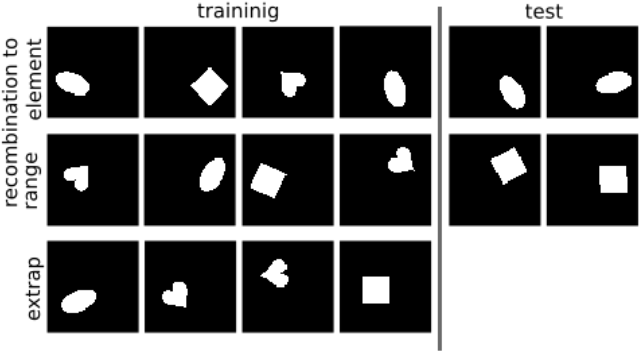

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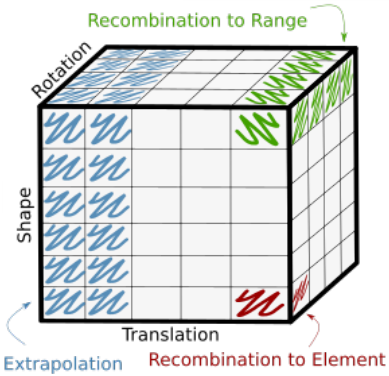
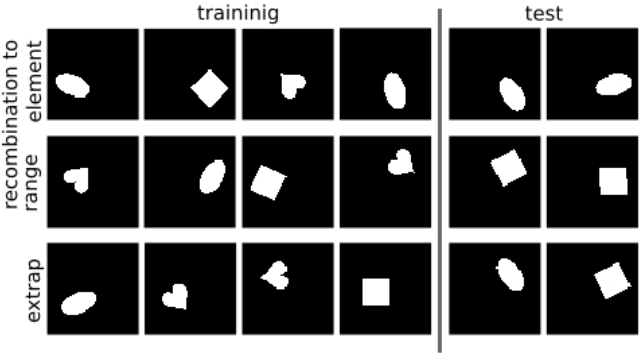
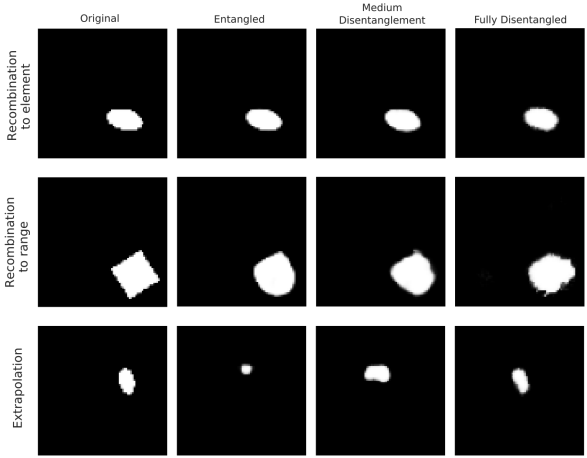
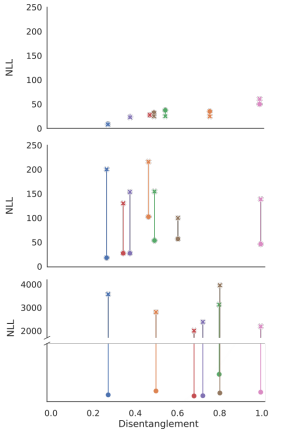


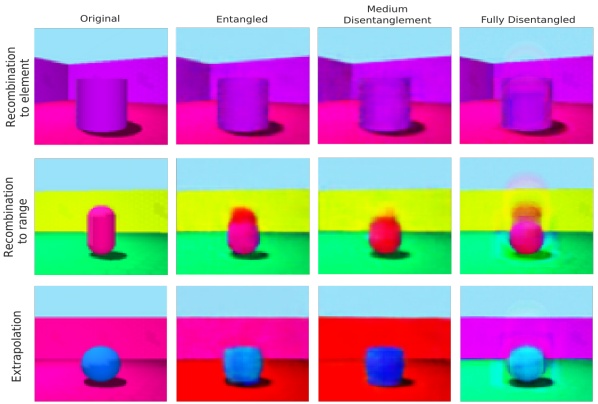


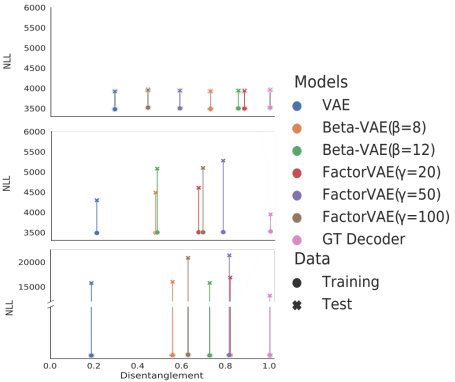
Results: dSprites





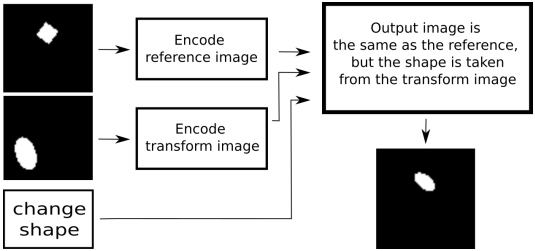
Results: 3DShapes





Can we push the models to learn compositional representations by chaning the task?

Composition task and model



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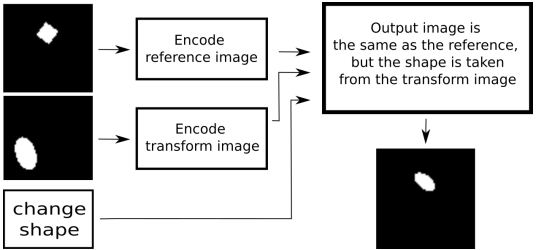
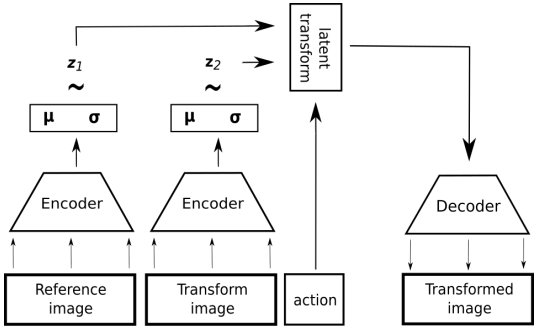
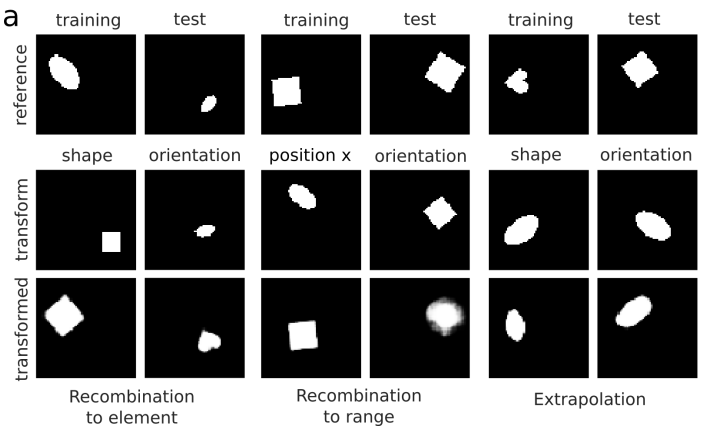




Compositon task: results



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4. This works adds to oher contributions that highlight the need for better definitions, metrics, models and training settings .

Acknowledgements

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Jeff Bowers, Gaurav Malhotra, Rui Ponte Costa & Casimir Ludwig