

Step1: How to put a level of "strength"?

- **Make the correlation for "parents", like what the third paper does but to parent nodes.** If possible, how to affect the model(loss function or decoder or just the distribution of latent variables)
- **Make zero element in A to non-zero.** Since A represents the causal graph, doing some change manually can affect the causal graph

Sensitivity Analysis

Step2: How to measure the change of outcomes?

- Hypothesis testing?
- Draw the figures for the change of outcome(e.g. MSE) based on different "strength"?

Step3:

- Doing some task(e.g. classification) checking the change of prediction (Y)?
- Different algorithms(Paper 1 with more help)?

Topology of Features

Simplest & most possible & may not fully correct Causal Graph (A)

X(observed data sample)

Encoder
 $P_{\phi}(Z|X)$

Z

A

Decoder
 $P_{\theta}(X|Z)$

\hat{X}

(outcome)

Classifier

Y