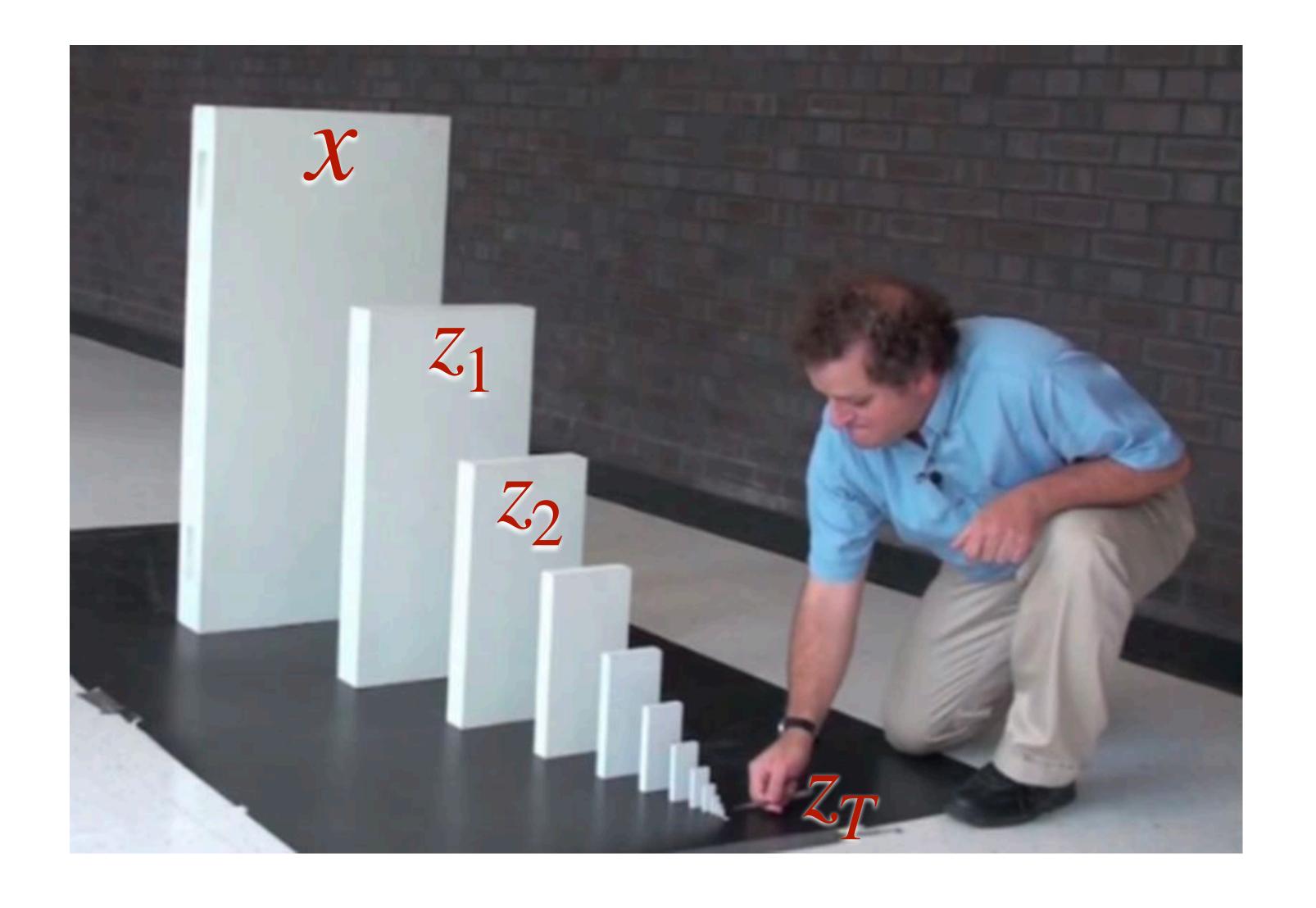
Towards diffusion: hierarchical VAEs



Towards diffusion: (Markovian) hierarchical VAEs

Reverse process
$$p(x, z_1, z_2, \dots, z_T) = p(z_T) p(z_{T-1} \mid z_T) \dots p(z_1 \mid z_2) p(x \mid z_1)$$

Forward process
$$q\left(x,z_{1},z_{2},\cdots,z_{T}\right)=q(x)\,q\left(z_{1}\mid x\right)\,q\left(z_{2}\mid z_{1}\right)\cdots q\left(z_{T}\mid z_{T-1}\right)$$