

Rearranging the Deck Chairs on the Titanic

A Simulation Model Of Behavioral Resource Utilization Under Crisis

James E. Paine

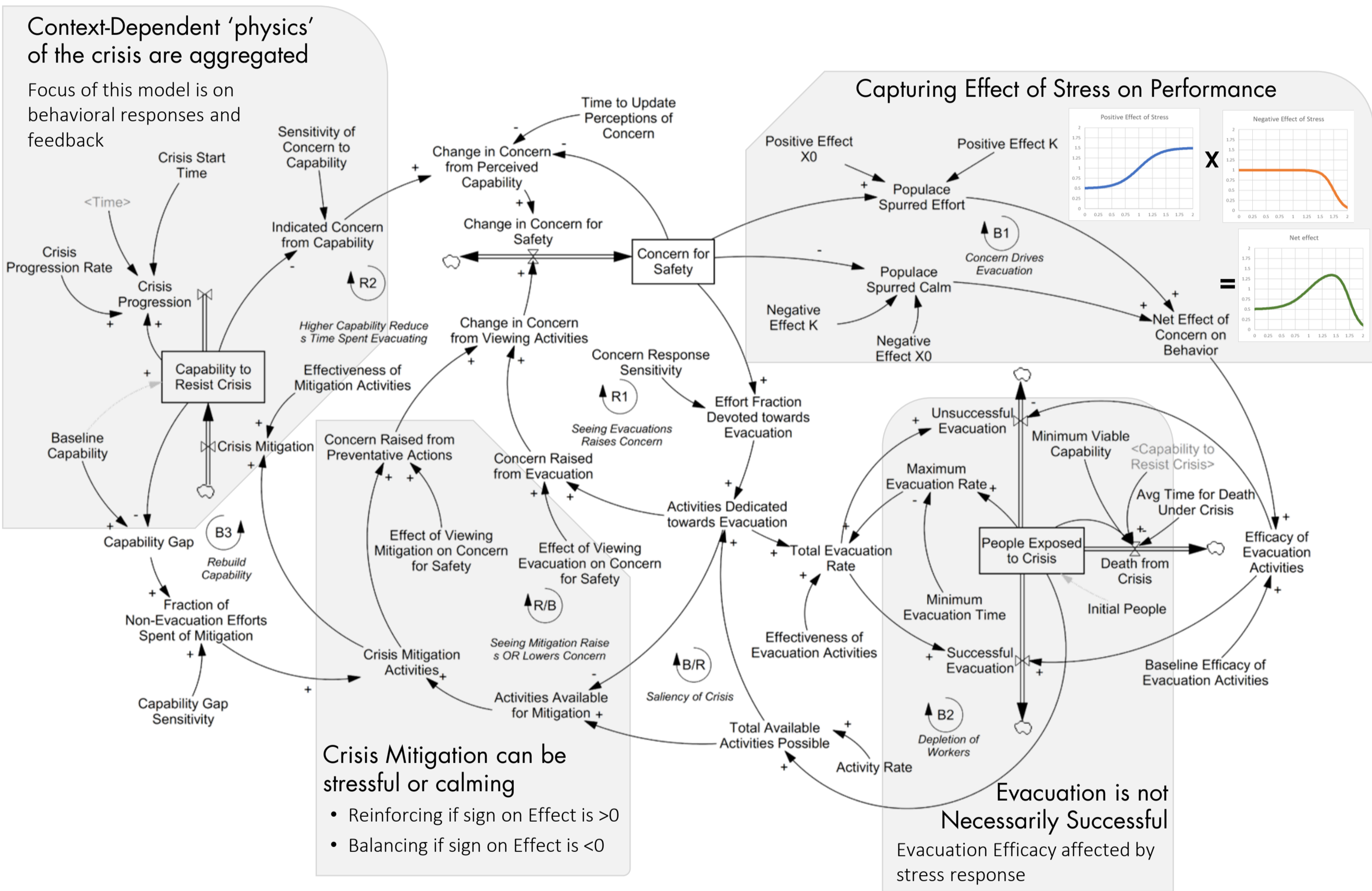
MIT Sloan School of Management – System Dynamics Group

BACKGROUND & SUMMARY

- “Rearranging the deck chairs on the Titanic is used metaphorically “to occupy oneself with some trivial activity while ignoring something much more important.”
- Mitigation activities during crisis can have two purposes: buying time and calming people down.
- Under what circumstances could “rearranging the deck chairs” or any possibly preventative, even seemingly trivial, activity during a crisis be helpful?

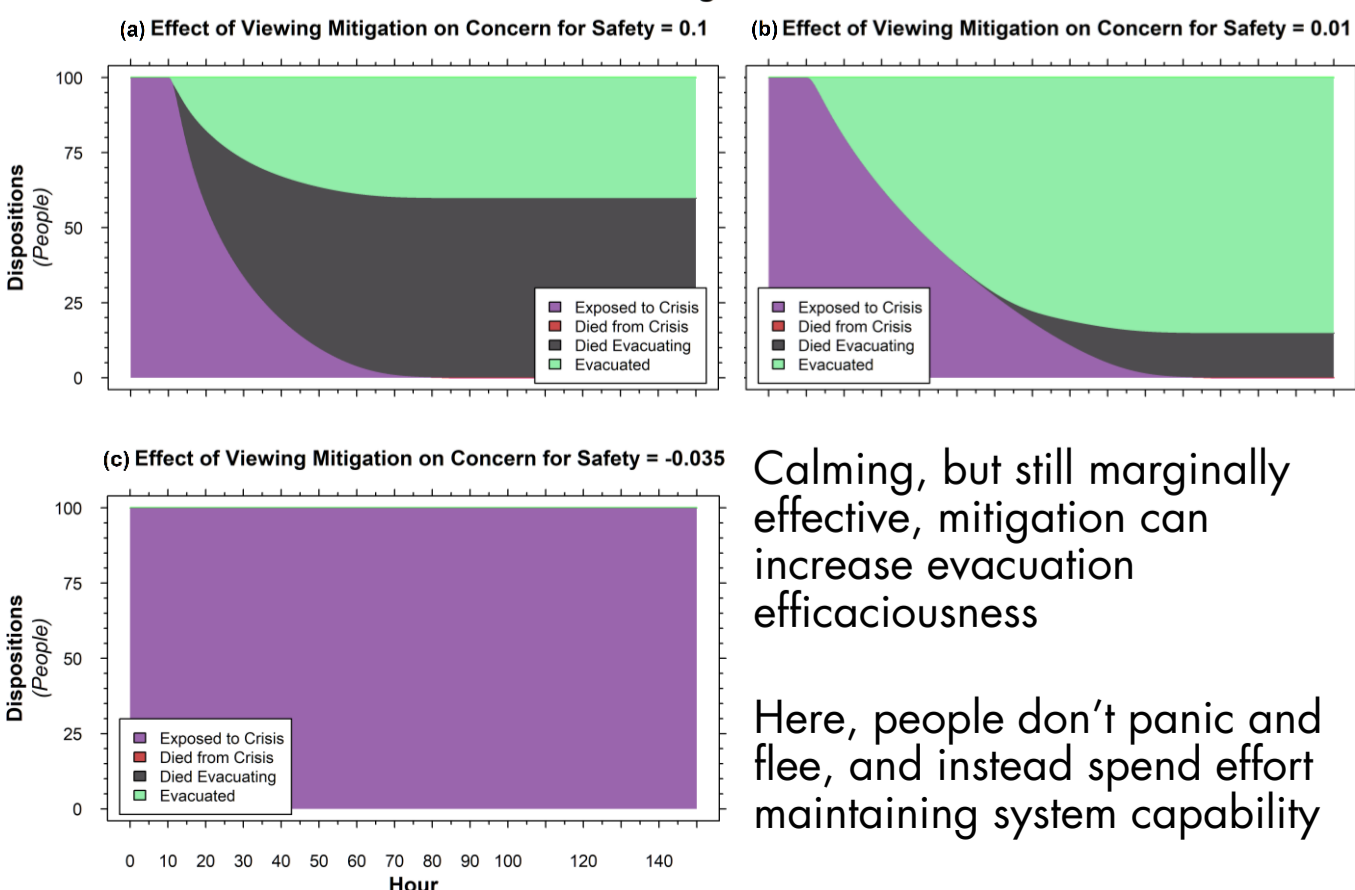
- This work presents a **compartmental differential equation model** that explores the interplay of **stress** response and action **efficacy** in group survivability during a crisis
- Highlights that calming but even marginally effective mitigation activities can stabilize or improve crisis outcomes, while a calming but totally non-effective mitigation activity can severely worsen outcomes

MODEL STRUCTURE AND KEY MECHANISMS

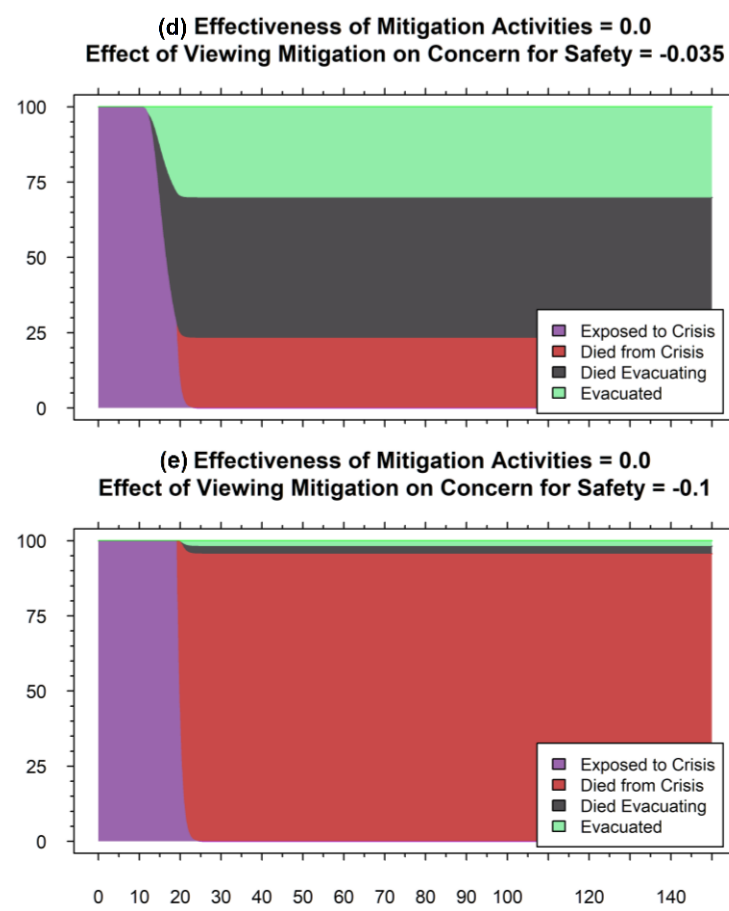


Varying Stress Effect of Mitigation

Effectiveness of Mitigation Activities = 0.01



Marginally Effective vs Ineffective Mitigation



Positive effect of calming lost when mitigation is totally ineffective

- For very calming mitigation, can get 'head in the sand' outcome with negligible evacuation

This is 'rearranging the deckchairs' in the original meaning

Model Files & Additional Documentation

