

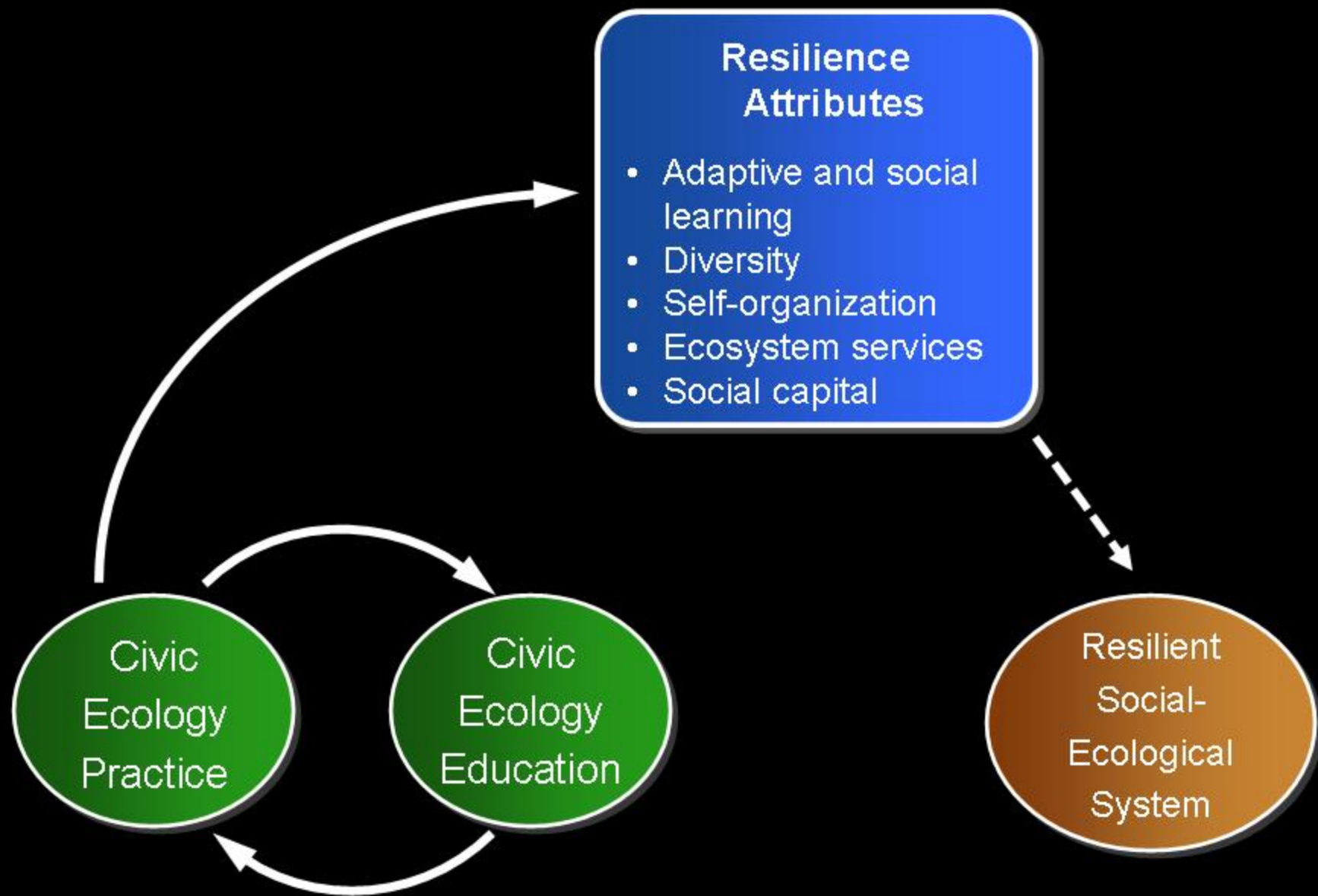


Towards an Ecology of Environmental Education: Feedback Loops, EE, and Resilience

*World Environmental Education Congress, Montreal
May 2009*

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&
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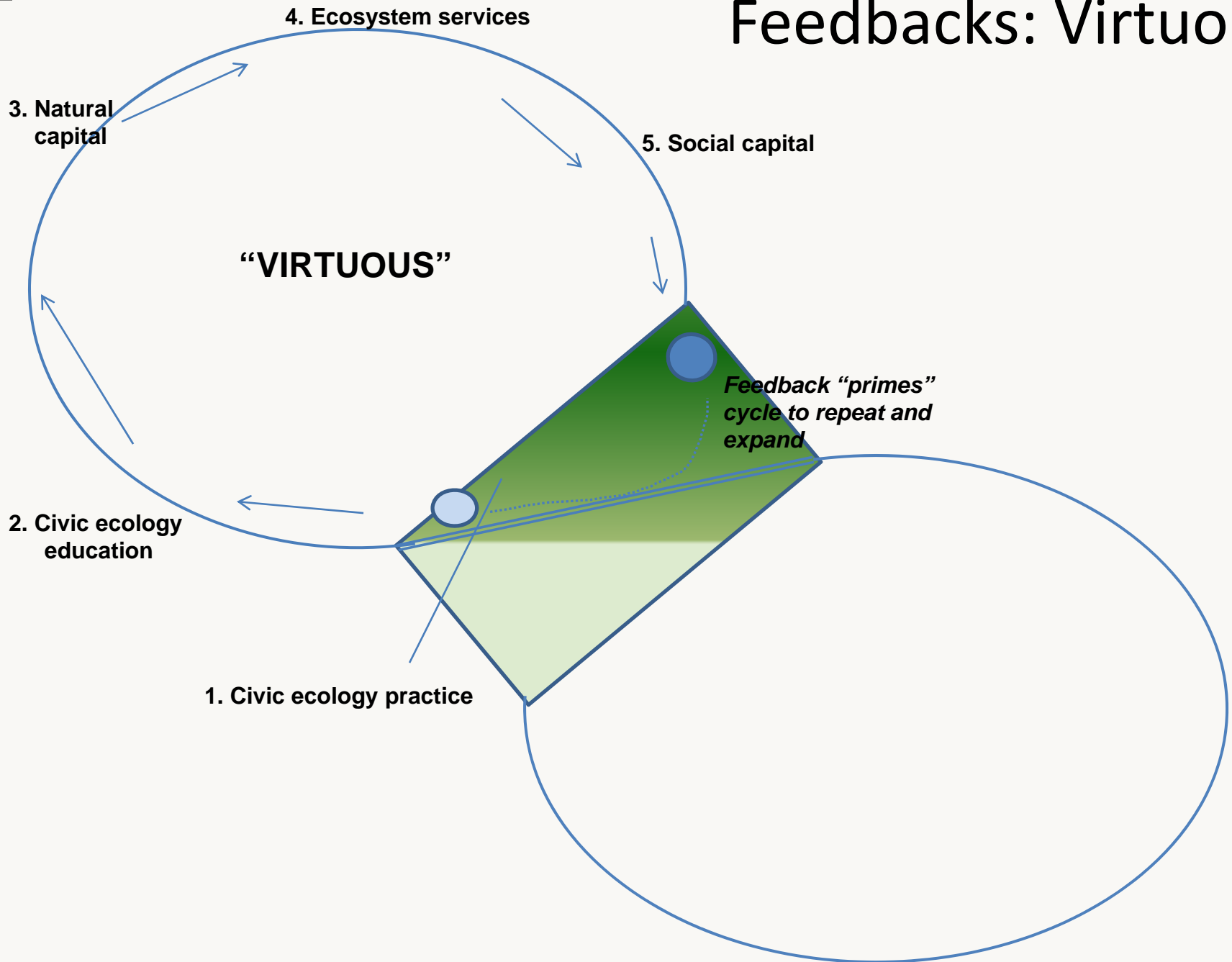
*Cornell University
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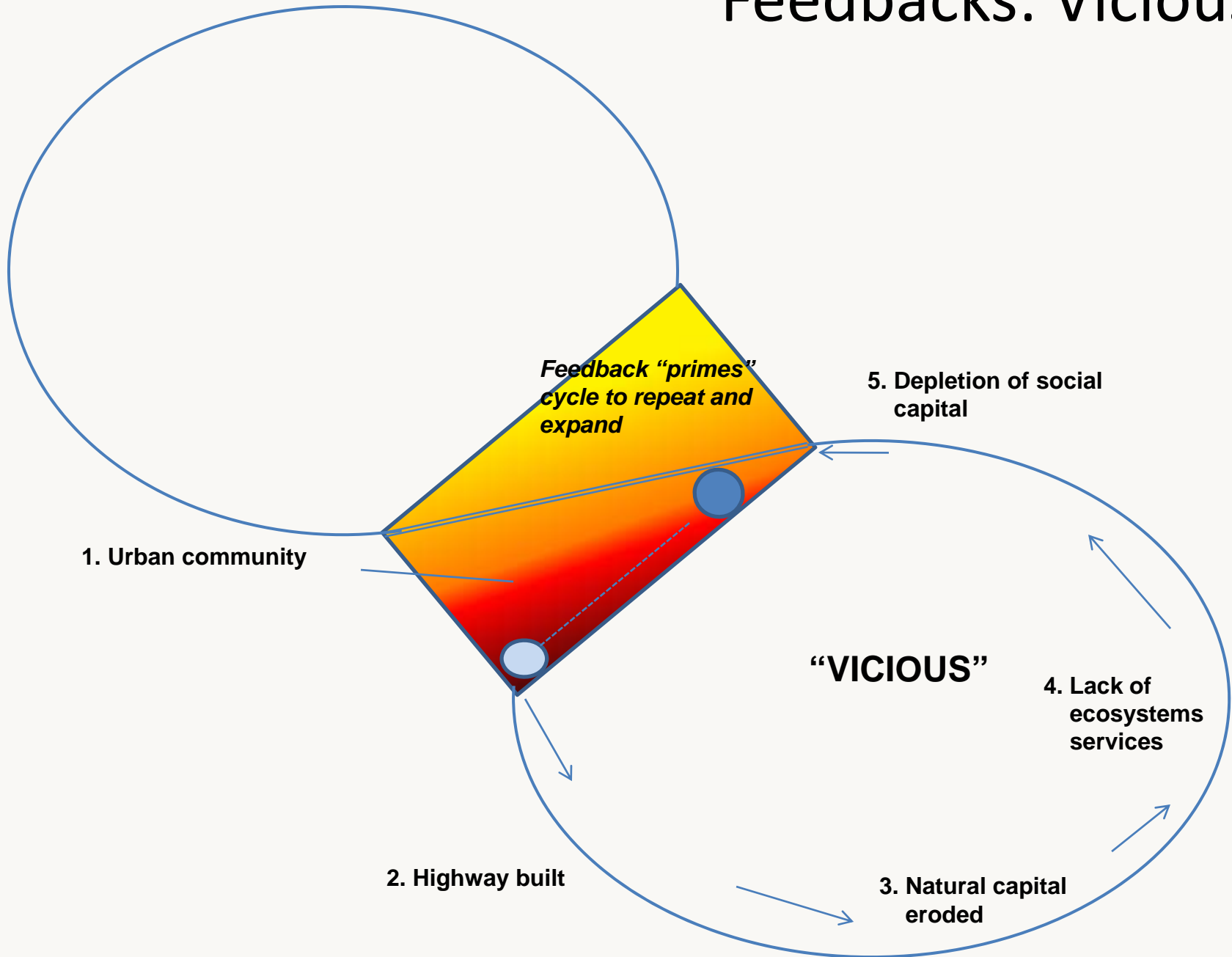
Folke et al. 2002
Walker & Salt 2006
Krasny & Tidball 2009



Feedbacks: Virtuous

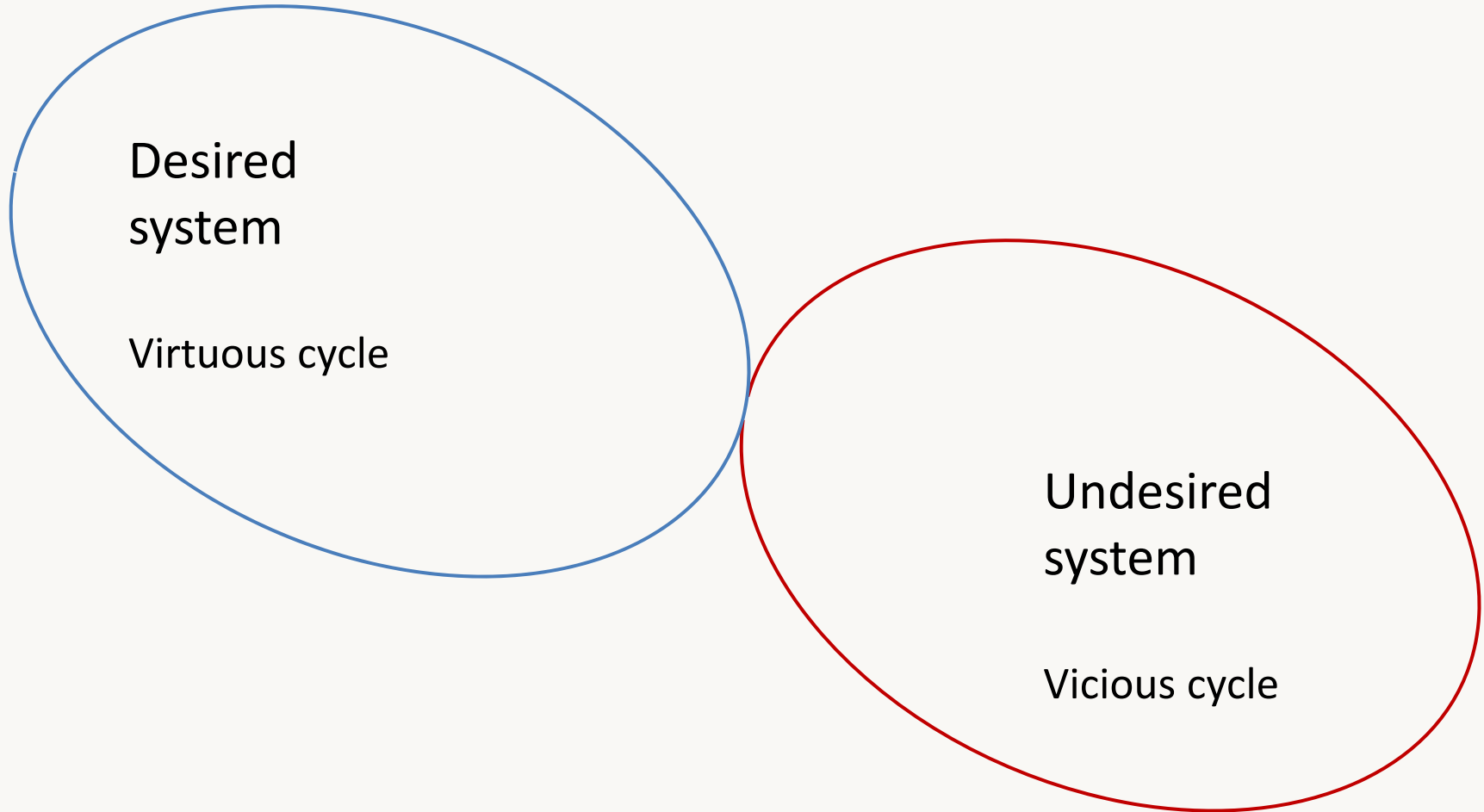


Feedbacks: Vicious



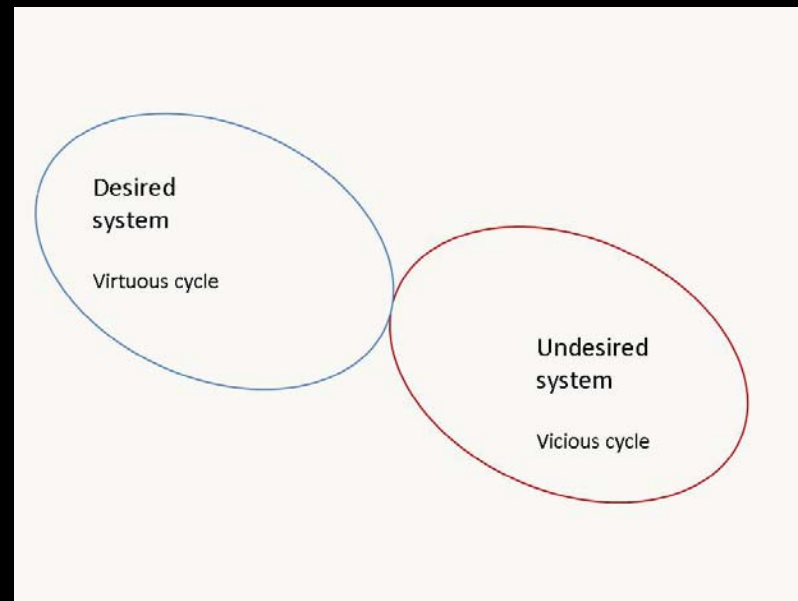


Virtuous and Vicious Cycles Can be Resilient



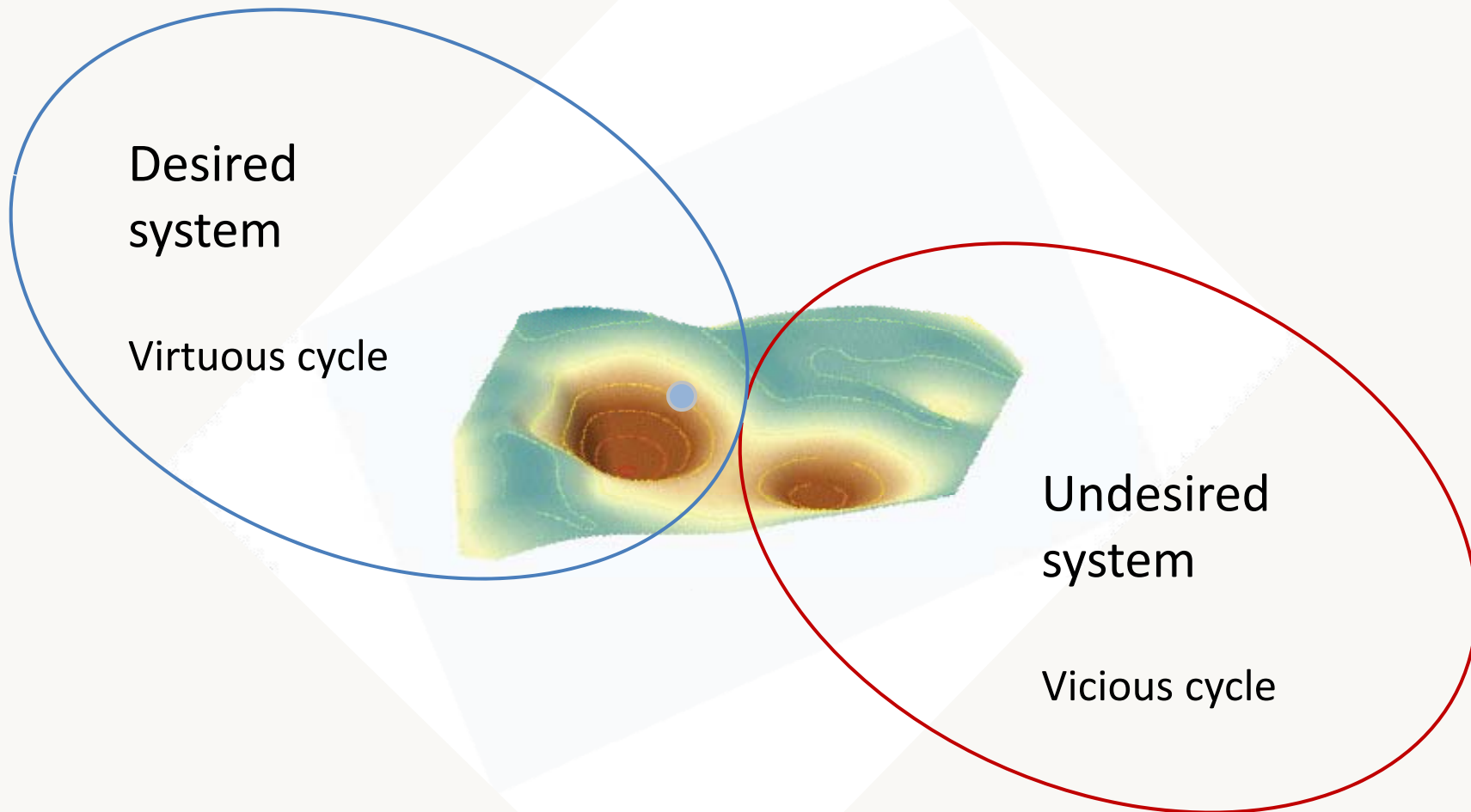


How can EE Help in Managing a System for a Desirable Resilient State?



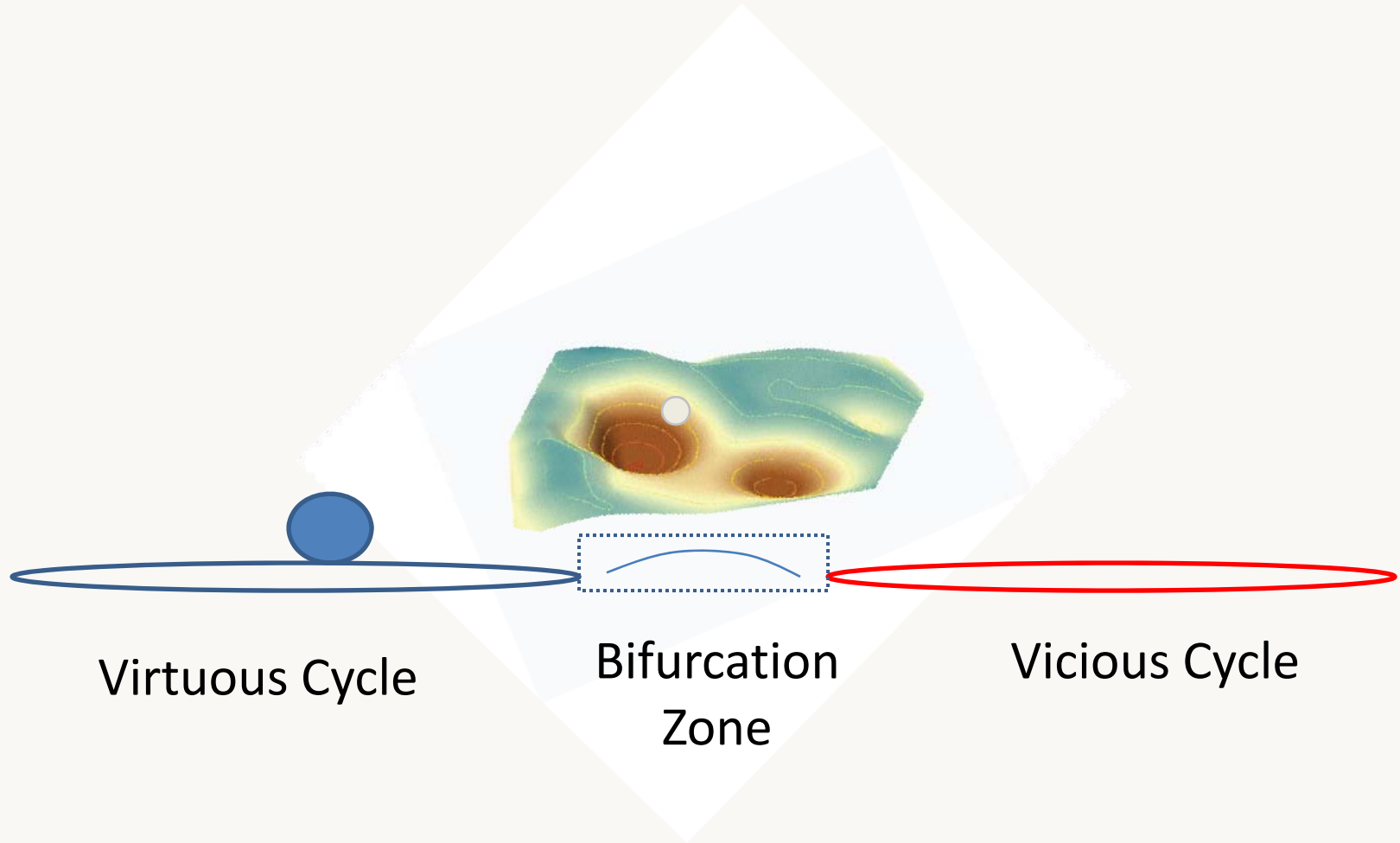


Virtuous and Vicious Cycles Can be Resilient



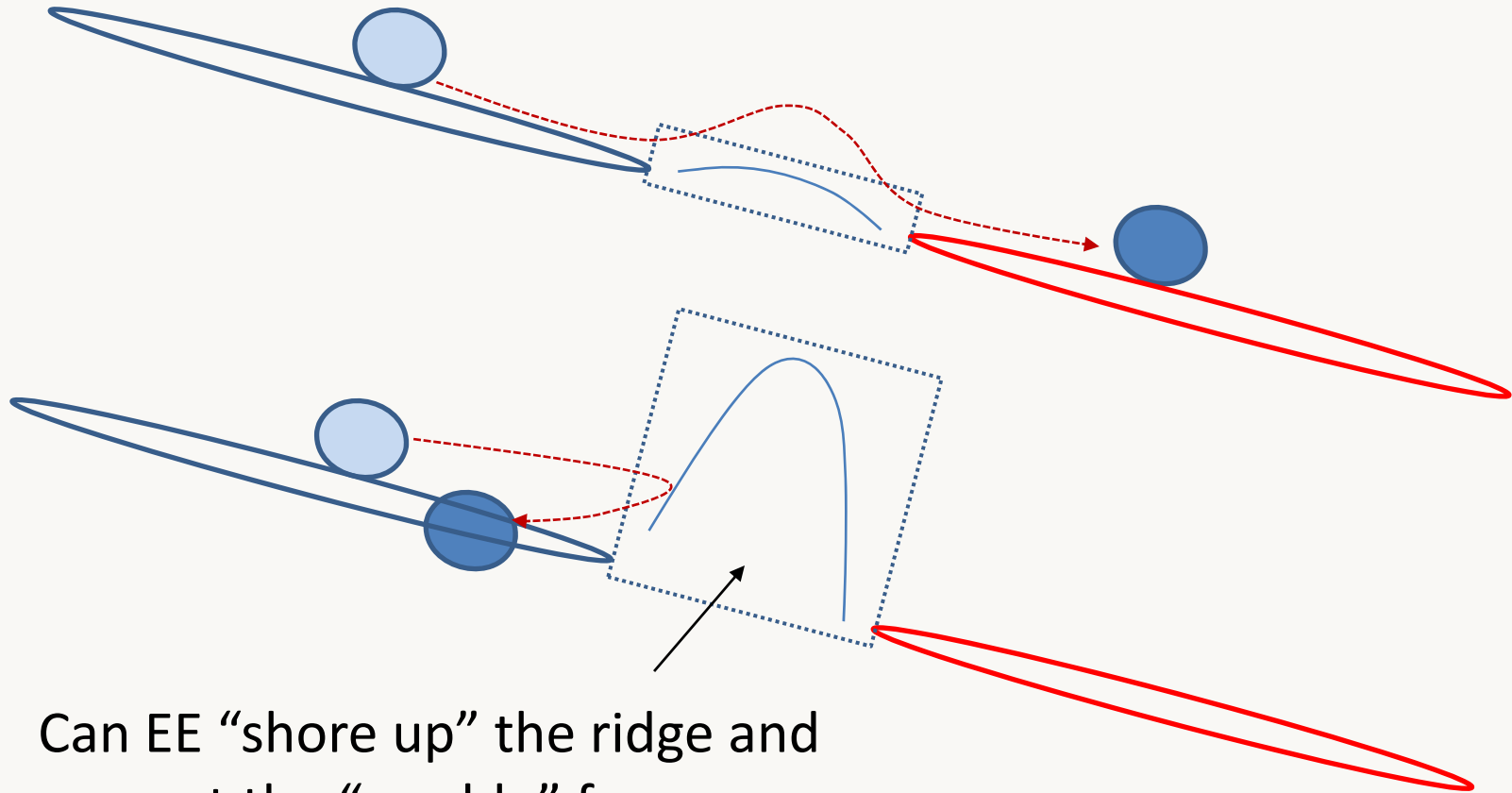


Bifurcation Zones and Resilient Cycles



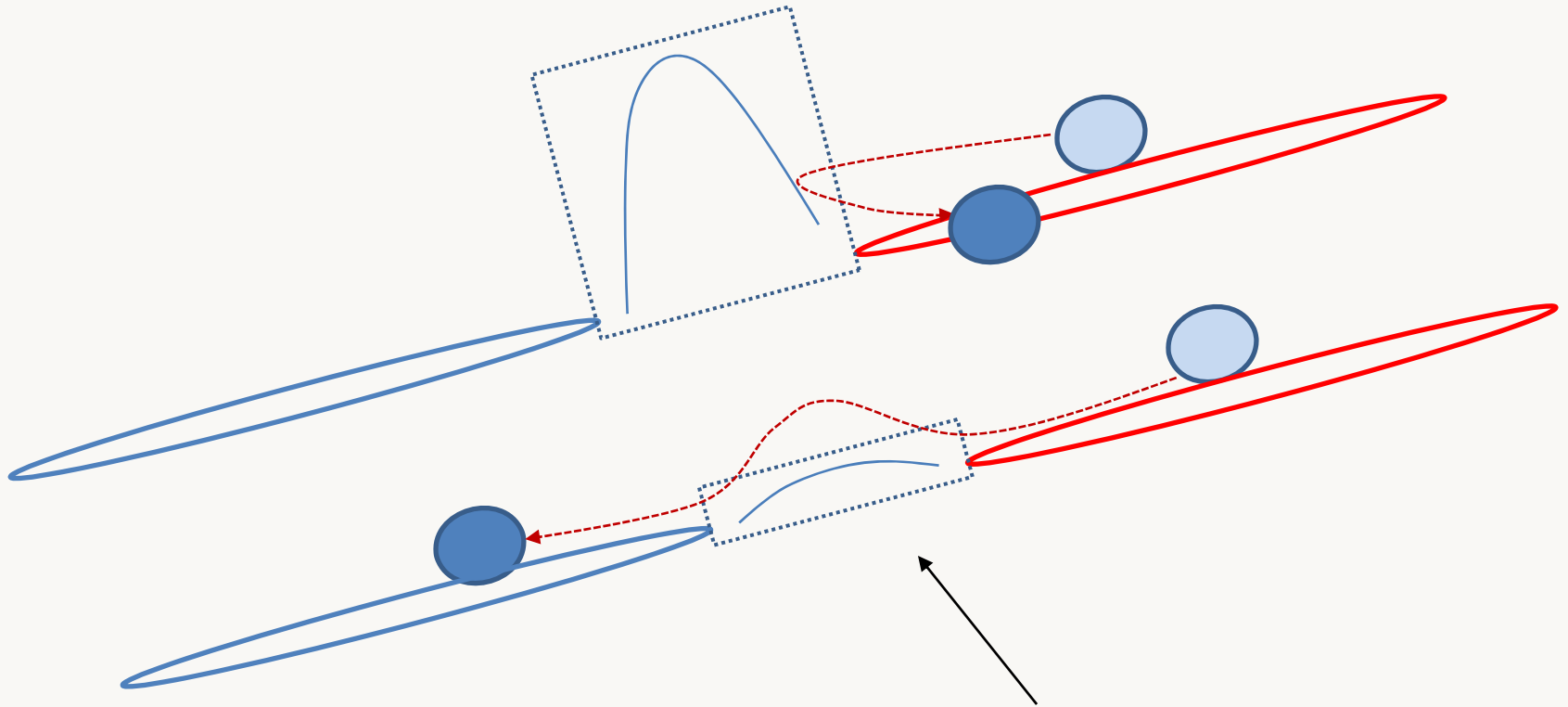


EE, Bifurcation Zone, and Resilience



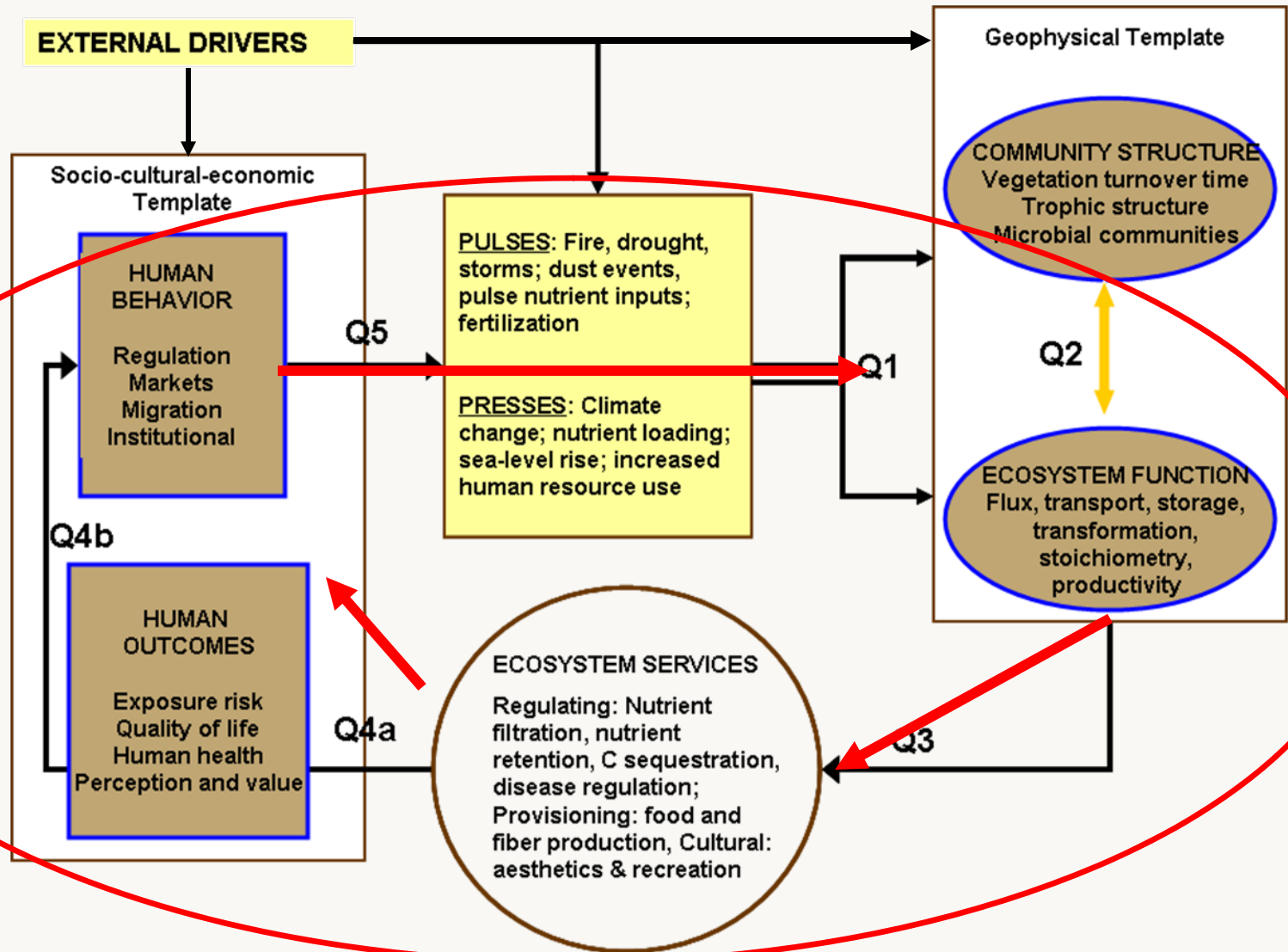
Can EE “shore up” the ridge and prevent the “marble” from crossing into the vicious state?

EE, Bifurcation Zone, and Resilience

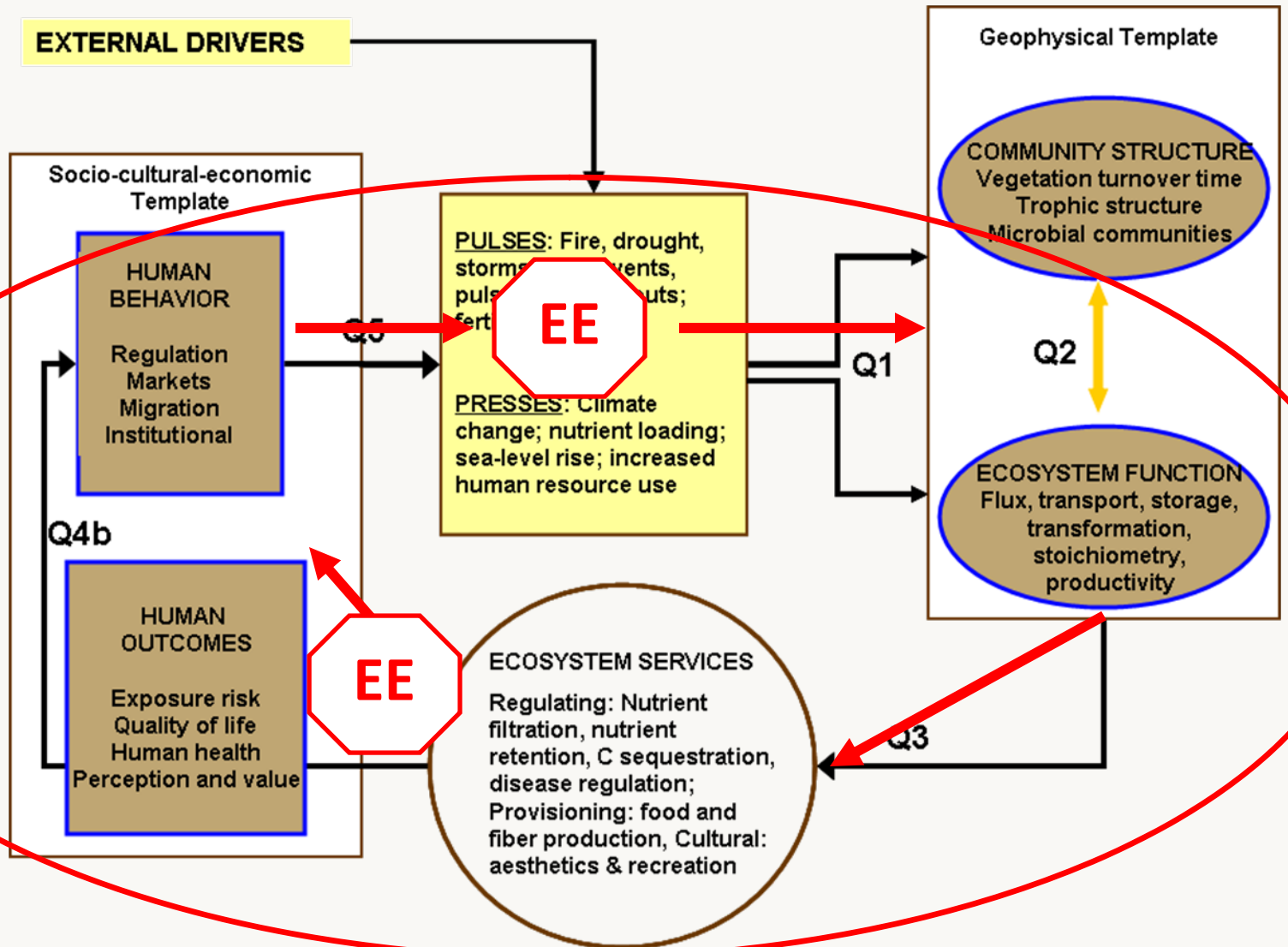


Can EE “diminish” the ridge and help the “marble” cross from the vicious into the virtuous state?

Feedback Loop between Social and Ecological Systems



EE Role in Feedback Loop?



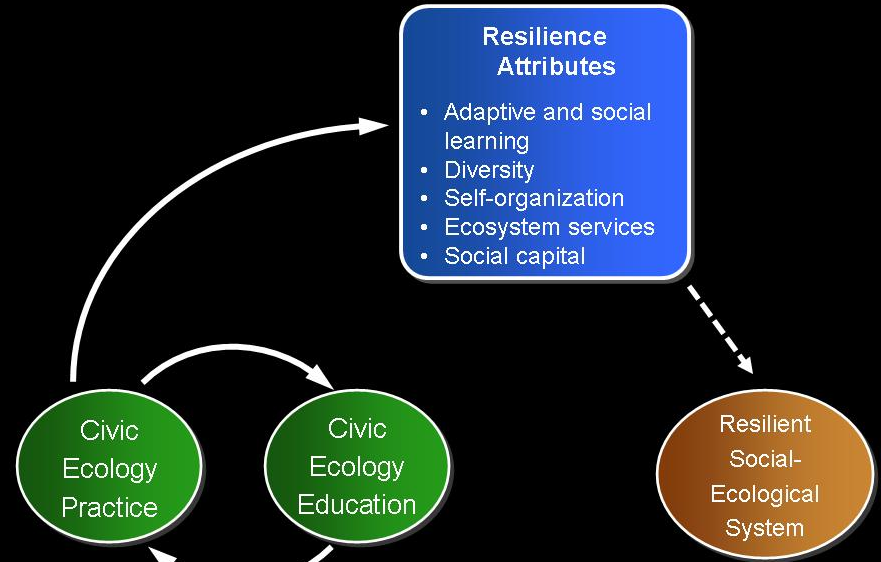


Conclusions

- EE may become part of feedback loops in social-ecological systems.
- An “ecology of EE” explains how EE relates to other parts of the social-ecological system.
- An “ecology of EE” helps us:
 - to theorize the role of EE in fostering desirable resilience.
 - eventually to better manage social-ecological systems for resilience.

Recap

- Resilience: capacity of system to respond to and to grow from disturbance.
- Civic ecology practices can help confer resilience.
- EE can be situated in and enhance civic ecology practices.
- Thus, EE may help confer resilience.



Folke et al. 2002
Walker & Salt 2006
Krasny & Tidball 2009