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### **Lights! Dancers! Economics!**

*By Lauren Sieben*

If Milton Friedman and Martha Graham had a love child, it might look something like the "Tragedy of the Commons."

Antony Davies, an associate professor of economics at Duquesne University, and his sister, Jenefer Davies, an assistant professor of dance at Washington and Lee University, staged the experimental production this month at Washington and Lee to demonstrate a key principle of economics. The tragedy of the commons, enunciated in an essay of the same name in 1968 by the ecologist Garrett Hardin, states that when a resource is held jointly, its owners will deplete it more quickly than when individuals own equal and private portions of the same resource.

"We were talking one day and realized I do a lot in experimental economics," Mr. Davies says. "It occurred to me that she could choreograph a dance that exhibited some economic principles." The tragedy of the commons, he says, seemed like one of the easiest to depict.

[In the performance](#), five volunteers from the audience individually controlled spotlights that illuminated each of five dancers onstage. Volunteers were told that they should try to keep their dancers illuminated as long as possible but that the light was a limited resource: The first performance began with 30 seconds of light in the communal "light bank," and audience members drained that bank when they illuminated their dancers. Turning the light off, however, would slowly replenish the time in the bank.

Immediately after the first performance with the communal bank, the dancers began a second performance. But this time the five volunteers drew light from—and restored it to—private banks, up to six seconds per volunteer.

"There's no benefit in conserving the resource in the first movement," Mr. Davies says. "In the second movement, I still get the benefit from using the light, but in addition I get the benefit from conserving it."

Antony and Jenefer Davies come from a long line of dancers and thespians—Mr. Davies himself has a background in ballet and tap dance—but this was the first time they had collaborated on a scholarly project. "I loved it because I'm always looking for ways to sort of expand my audiences and include more people in dance and draw more people into the art," Ms. Davies says.

Her job was to choreograph a piece that kept the dancers under their spotlights, rather than to express the economic principle, she says, because "I don't really know if that's possible." Ms. Davies choreographed a modern dance, and each dancer moved as much as she could vertically, occasionally writhing on the floor, other times springing upward in jumps.

The economic theory played out as anticipated. The volunteers generated more light during the second leg of each of the three performances, with their individual "light banks," than they did while sharing time from the communal bank. Mr. Davies was relieved.


"I'm always crossing my fingers, hoping the economics works," he says. "It always does, nevertheless, but you're taking a leap of faith here because you're allowing people to do whatever they want."

One more reason for relief: No dancers were injured during the several onstage blackouts.

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**mvclibrary** 7 months ago

Cool! I'm relieved to hear others are always crossing their fingers hoping that the economics works, though. When you're dealing with people anything can happen (and often does...)

Like



**bizdean** 7 months ago

Bravo, Prof. Davies. Kinesthetic learning always "takes" faster than abstract learning, and is retained longer. It takes a creative teacher to devise ways to teach complex subjects via "body knowledge." However, as for "crossing my fingers, hoping the economics works" in kinesthetic mode, it won't always. Try "musical chairs." Each round leaves one person unseated. Chairs are a "scarce resource," but money will not buy another chair!

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